

**SAN FRANCISCO STATE UNIVERSITY  
2011-2012 COURSE DESCRIPTIONS**

## COURSE DESCRIPTIONS, SYMBOLS, AND TERMS

### EXPLANATION OF COURSE NOTATIONS

Certain notations are uniformly used in the course descriptions in this *Bulletin*.

- Courses are not repeatable for credit unless a statement, "May be repeated," appears in the course description.
- The figure in parentheses following the course title indicates the number of semester units for the course. Some courses may be offered for varying units and are indicated by specifying the range of units; e.g., (1-3).
- All course prerequisites are listed in italics at the beginning of the course description.
- The statement "Topic to be specified in *Class Schedule*" in the course description indicates that a more specific topic has been developed for offering. The specific topic(s) will be listed in the *Class Schedule*.
- Some courses are offered jointly by one or more departments; e.g., Anthropology 614 is also offered as Education 614. This notation appears at the end of the course description. These courses cannot be repeated under a different discipline heading.
- Symbols and notations in brackets at the end of course titles signify: General Education courses [GE], U.S. History and Government requirement courses [USH, USG], and California State and Local Government courses [CSLG].

### COURSE DESCRIPTIONS

Course descriptions briefly describe the content or subject matter to be covered and provide additional information on units of credit, the level of instruction (see course numbering system), prerequisites and type of course (lecture, laboratory, seminar, and individually supervised work).

Students may not earn credit in a cross-listed course a second time under an alternate prefix.

Information on specific offerings (times, rooms, instructors) will be found in the *Class Schedule* which is available on the SF State Web site in advance of fall, spring and summer semesters. Experimental and variable topic courses which are offered each semester can be found in the *Class Schedule*.

### COURSE NUMBERING SYSTEM

Because of the differences in the organization and content of the various disciplines and professions, there is no uniform way of numbering courses that would be equally useful in all fields of knowledge.

In general it may be assumed that advances in division level (lower, upper, graduate) correlate with more difficult and challenging academic work. Upper division courses typically include a statement that indicates the prerequisite course work. Sometimes, however, disciplines organize their course numbering partly in terms of criteria other than degree of difficulty. It should be noted, too, that some students find introductory courses to be more demanding than advanced, specialized courses. In such courses, a more comprehensive approach and the first exposure to new ways of thinking may be harder for some

individuals than covering a smaller, more familiar, area in much greater detail. Also, please note that the 9000-9999 series is designated for professional level courses which award Continuing Education Units (CEUs). CEUs are nationally recognized units of measurement for participation in education and training programs for which academic credit is not awarded. The following course numbering system is used at this university:

- 0- 99 ---- remedial instruction and non-credit courses (units and grades earned will not count towards graduation requirements)
- 100-299 ---- lower division
- 300-699 ---- upper division
- 700-899 ---- graduate courses
- 900-999 ---- doctoral courses
- 9000-9999 ---- professional level courses offered for Continuing Education units (CEUs); may neither be applied to nor substituted for graduation requirements.

### PAIRED COURSES

It is the policy of the university to permit individual departments or program areas to develop advanced undergraduate and graduate level courses with virtually identical subject matter and to offer them in a paired arrangement with a single instructor and a common meeting schedule. The mechanism of pairing graduate and advanced undergraduate courses is a means of facilitating programs or circumstances where limited resources otherwise would require that the quality of one program be sacrificed to maintain the quality of the other.

### SPECIAL COURSE NUMBERS

For uniformity, certain types of courses have been listed by all departments and colleges with the same numbers: 699 and 899 are used for undergraduate and graduate "special study;" 893 for written creative works; 894 for creative work projects; 895 for field study or research projects; 896 for directed reading; 897 for graduate research; 898 for master's thesis.

### EXPERIMENTAL AND TEMPORARY COURSES

All departments are authorized to offer experimental or temporary courses. These are not specifically described in the *Bulletin*. Descriptions should be obtained from the department when such courses appear in the printed *Class Schedule*. The numbers 274, 277, 674, 677, 874, and 877 are used by all departments to designate lower division, upper division, and graduate levels, respectively. The standard *Bulletin* description for these courses is:

#### 274/277 Exploration in (name of discipline) (1-6)

A course involving exploration of a major problem or theme or an experimental method of instruction, with variable content as specified in the course subtitle in the *Class Schedule*. May be repeated for credit when different content is involved.

### REMEDIAL INSTRUCTION AND NON-CREDIT COURSES

Courses numbered 0-99 are remedial courses. Units and grades earned will not count towards meeting graduation requirements.

### INTERNATIONAL STUDY COURSES

San Francisco State University provides the opportunity for students enrolled in the California State University International Programs to receive credit for special study or for subjects taken at universities abroad. For details of the program, consult the Index. The numbers 292, 492, and 792 are used to designate lower division, upper division and graduate levels, respectively. Transcript designation will be IS 292, 492, 792.

#### 292 Projects in Study Abroad (*subject to be designated by Overseas Resident Director, International Programs*) (1-3)

*Prerequisite: consent of major adviser.* Open only to students in California State University International Programs. May be repeated for credit when different subjects are involved.

### SPECIAL STUDY

Under special study courses, upper division and graduate students can pursue topics or problems of special interest beyond the scope of a regular course under the supervision of a faculty adviser. The work is of a research or creative nature, and normally culminates in a paper, project, comprehensive examination, or performance. Before registering, the student must have the topic approved by the instructor who will be supervising the independent study, as well as by the adviser and the department chair. (Forms are available in department offices.) The course numbers for special study are 699 and 899. In most cases, special study courses may be repeated for credit. Check the description for limitations.

### METHODS OF INSTRUCTION

The forms and methods of teaching vary widely in specific classes. The more traditional methods of lecturing, discussion, laboratory work, and individually supervised research or projects are being supplemented by such learning resources as group and individual exercises, television, films and records, videotaping, and the use of the computer. Modern specialized facilities and equipment are used in many courses in different fields. These include: laboratories for teaching the sciences, a planetarium, studios for teaching the fine arts; a variety of facilities for teaching communications; a language laboratory for teaching foreign languages and linguistics courses; a speech and hearing clinic; the Tiburon Center for Environmental Studies; the Moss Landing Marine Laboratories; the Sierra Nevada Field Campus.

San Francisco State University encourages experimentation and innovation in teaching and welcomes a diversity of approaches. Increasingly and with growing help from students, efforts are being made on the campus to examine, evaluate, and improve the learning experiences.

**ACCOUNTING***Undergraduate Courses***ACCT 100 Introduction to Financial Accounting (3)**

*Prerequisite:* passing ELM test. Objectives, basic theory, principles, and methods of financial accounting. Reports as a framework for decision-making. Measuring and reporting financial position regarding income, costs, and revenue.

**ACCT 101 Introduction to Managerial Accounting (3)**

*Prerequisite:* grade of C- or better in ACCT 100. Use of accounting information to plan and control an organization's financial activities. Processes used to plan and control costs and expenditures. Quantitative techniques used to evaluate alternative choices.

**ACCT 199 Principles Equivalency Transfer (PET) (1)**

*Prerequisite:* consent of instructor. Special study project to allow full transfer credit of partially equivalent course(s) from another university/college for ACCT 100 and ACCT 101. CR/NC grading only.

**ACCT 300 Accounting and Finance Reporting (3)**

*Prerequisite:* passing ELM test. Introduction to accounting emphasizing corporate financial and managerial reporting. Theories, principles, and concepts underlying financial statements. Covers asset valuation, income determination, capital structure, budgeting. Provides background for financial statement analysis.

**ACCT 301 Intermediate Financial Accounting I (3)**

*Prerequisites:* ACCT 100 with grade of C or better and passage of ACCT 301 pretest. A comprehensive treatment of the theory and practice of accounting for assets, income, and the construction of financial statements. Additional topics include current liabilities and accounting changes.

**ACCT 302 Intermediate Financial Accounting II (3)**

*Prerequisite:* ACCT 301 with grade of C or better. A comprehensive treatment of the theory and practice of accounting for investments, long term liabilities, owners' equity, leases, post retirement benefits, income taxes, earnings per share, and the cash flow statement.

**ACCT 303 Accounting for Financial Analysis (3)**

*Prerequisite:* ACCT 101 with grade of C- or better. Theory and practice of accounting for assets, liabilities, owners' equity, income and the construction and analysis of financial statements.

**ACCT 305 Cost Accounting (3)**

*Prerequisites:* ACCT 101 and ACCT 301 with minimum grades of C, or ACCT 303. Cost volume profit analysis, cost accumulation techniques, decentralization, transfer pricing, capital budgeting, cost allocation, budgeting, statistical cost estimation. Managerial uses of information for planning, control, and performance evaluation.

**ACCT 307 Accounting Information Systems (3)**

*Prerequisites:* ACCT 100, ACCT 101, and ISYS 263 with grades of C- or better; passage of ACCT 301 pretest. Development and use of accounting information systems for managerial control and external reporting.

**ACCT 317 Accounting/Internal Auditing Internship (3)**

*Prerequisite:* ACCT 302, average GPA of 3.0 on upper division accounting courses, and consent of instructor. Work experience, related to the student's academic program, with an accounting firm, private industry, government agency, or not-for-profit organization. CR/NC grading only.

**ACCT 501 Advanced Accounting (3)**

*Prerequisite:* ACCT 302 with grade of C- or better. Selected accounting problems. Business combinations and consolidated financial statements. Multi-national operations, segmental reporting, interim reporting, partnerships.

**ACCT 504 Government and Non-Profit Accounting (3)**

*Prerequisite:* ACCT 301 with minimum grade of C-. Financial reporting policies, procedures, and responsibilities of state and local government units, hospitals, trust entities, schools, voluntary health organizations, and other non-profit organizations.

**ACCT 506 Auditing (3)**

*Prerequisites:* ACCT 302, ACCT 307, and DS 212 with minimum grades of C-. Principles and practice of auditing especially as it relates to the examination of financial statements by certified public accountants. Brief consideration of operational auditing.

**ACCT 507 Information Systems Auditing (3)**

*Prerequisite:* ACCT 302. The accounting system environment with respect to computer implementation of procedures. Audit techniques and specific audit methodology to handle computerized audits.

**ACCT 508 Federal Tax Accounting I (3)**

*Prerequisite:* ACCT 301 or ACCT 303 with minimum grade of C-. Federal income tax law as applied to individuals, corporations, and partnerships. Tax research and responsibilities in a tax practice.

**ACCT 509 Federal Tax Accounting II (3)**

*Prerequisite:* ACCT 508. Federal income tax focused on advanced topics applicable to individuals, corporations, and partnerships. Estate and gift taxation and income taxation of estates and trusts.

**ACCT 513 International Accounting (3)**

*Prerequisite:* ACCT 301 or equivalent with grade of C- or better. Covers the international aspects of accounting, financial reporting, and operations of multinational enterprises (MNE).

**ACCT 518 Accounting Fraud Examination (3)**

*Prerequisite:* ACCT 302 or equivalent. Nature of fraud. Interactive case sessions on how fraud is committed and how to investigate fraud.

**ACCT 551 Principles of Internal Auditing (3)**

*Prerequisites:* ACCT 301 and 307 with grades of C- or better. Overview of the internal audit process; control of internal systems, audit evidence, and reporting the internal audit.

**ACCT 699 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive problem analysis under the direction of an accounting faculty member. May be used to make up partial equivalencies for transfer students. CR/NC grading only.

*Graduate Courses***ACCT 800 Financial Accounting I (3)**

*Prerequisite:* BUS 780 with a grade of B- or better. Theory of accounting, accounting standards, and concepts. Preparation of financial statements. Intensive study of the theory, measurement, and presentation of assets, income, and current liabilities.

**ACCT 801 Financial Accounting II (3)**

*Prerequisite:* BUS 780 with a grade of B- or better; ACCT 800 (may be concurrent). Accounting for investments, liabilities, stockholders' equity, pensions, leases, income taxes, earnings per share and cash flow.

**ACCT 802 Strategic Management Accounting (3)**

*Prerequisite:* BUS 780, BUS 781, both with grade of B- or better. Use of cost data in management decision making as it relates to planning, cost control, and performance evaluation. Relevant management tools as they relate to cost management. Role of qualitative factors relevant to the managerial decision making process.

**ACCT 803 Auditing Principles and Practice (3)**

*Prerequisites:* ACCT 800 and ACCT 807. Application of auditing principles while examining financial statements. Review of internal control systems, sampling techniques, and report writing. Operational auditing, professional ethics, and auditors' liability.

**ACCT 804 Legal and Professional Responsibilities in Accounting (3)**

Legal rules and principles that apply to business transactions, including contracts, property, the debtor-creditor relationship, the formation of business organizations, the Uniform Commercial Code, and the regulation of business conduct. Professional responsibilities of CPAs, and government regulation of securities markets and of corporate financial reporting.

**ACCT 807 Seminar in Accounting Information Systems (3)**

*Prerequisite:* BUS 780 with minimum grade of B-minus. The development of accounting information systems and their uses for management decision making and external reporting. Auditing and control of accounting information systems.

**ACCT 808 International Accounting (3)**

*Prerequisite:* ACCT 800 with minimum grade of B-minus. A survey of problems relating to accounting for multinational corporations doing business in a global environment and attempts to solve them.

**ACCT 811 Introduction to Federal Tax (3)**

*Prerequisite:* BUS 780 with a grade of B- or better. An in-depth introduction to federal tax problems: income, deductions, credits, exemptions, and property transactions.

**ACCT 818 Advanced Accounting Fraud Examination (3)**

*Prerequisites:* ACCT 800 and ACCT 807. Advanced topics on the nature of fraud. Complex interactive case sessions on how fraud is committed and investigated.

**ACCT 831 Seminar in Financial Reporting (3)**

*Prerequisite:* BUS 780. Enrollment priority for graduate students in business, and computing and business. Financial statement analysis and recent developments in financial accounting, ethics, and regulation. Relevant to CPAs, CMAs and financial managers.

**ACCT 890 Research in Contemporary Issues in Accounting (3)**

*Prerequisites:* ACCT 800, plus 2 other 800 level ACCT classes. Enrollment priority for MSA majors. Supervised independent and group research into contemporary topics and issues in accounting including international accounting standards and ethics, culminating in oral and written presentations. Plus-minus letter grade only.

## AFRICANA STUDIES

## Undergraduate Courses

**AFRS 100 General Studies Colloquium (3)**

Developing the individual's awareness of race and ethnicity as it impacts educational achievement and attainment from preschool to the university level. Social, economic, and political relationship between schools and community. Survey of theories, characteristics, methodologies, and application of innovative research methodologies to the African American educational experience and connection to other cultural communities.

**AFRS 101 Introduction to Africana Studies (3)**

Development of Africana Studies as an academic discipline. Topics include history, literature, psychology, politics, and others.

**AFRS 110 Critical Thinking and the Black Experience (3) [GE]**

Developing the basic skills involved in understanding, criticizing, and constructing arguments by using materials reflective of experiences of Blacks and the third world culture in the United States.

**AFRS 111 Black Cultures and Personalities (3) [GE]**

The cultural influence on the development of Black personality configurations.

**AFRS 125 Black Community Involvement Workshop (3)**

Exploration of community organizations through actual involvement in various community agencies. Social, economic, and political resources in the community. May be repeated once.

**AFRS 200 Introduction to Black Psychology (3) [GE]**

Theories, characteristic methodologies, and applicability to the African American behavioral experiences and interface with other cultural communities.

**AFRS 201 Kemet, Afrocentricity, and the Dawn of Science (3) [GE]**

Kemetic Science and the primacy of Kemet (Egypt) in the development of modern science. The structured whole, the Nubian Vortex, Cartesian vs. Alchemical cosmologies; and the Afrocentric thought and achievement of African American scientists and engineers.

**AFRS 203 Black Social Sciences (3) [GE]**

Methodical principles, key theoretical concepts of western social sciences, and applications in third world critical perspective. Work of Black social scientists that have added to understanding black experience. Relevance of western methods and theories to Black development.

**AFRS 204 Black Creative Arts (3) [GE]**

Culture of Black Americans through examination of the creativity of its women artists.

**AFRS 210 Introduction to Africana Literature (3) [GE]**

Role of literature in the formulation, maintenance, and articulation of a cultural ethos. Historical route from caricature to hero through literature.

**AFRS 213 Science and Spirituality in Ancient Africa (3) [GE]**

Science and mathematics, in an African religious-spiritual context, used to conduct business, build monuments, study star and planetary motion, and explain the origin and evolution of the universe. Basic systems of measurement and calculation from ancient and modern Africa.

**AFRS 214 Second Year Written Composition: Africana Studies (3) [GE]**

*Prerequisite: grade of CR or C- or better in ENG 114 or equivalent.* Development of expository and analytic writing skills through the study and appreciation of Black literature. Various authors and genres of Black literature from different historical and cultural periods. Literary criticism. Must be taken after student has completed 24 units and before completing 60 units. ABC/NC grading, CR/NC allowed.

**AFRS 215 Introduction to Black Family Studies (3) [GE]**

Theories and research about Black families in America. Emerging trends in Black families: ethnic stratification, family and marital stability, socialization processes, and research issues.

**AFRS 221 African American Music: A 20th Century Survey (3) [GE]**

The history, growth, and development of African American music.

**AFRS 225 Images and Issues in Black Visual Media (3) [GE]**

Historical and developmental survey of Black film: criticism, analysis, aesthetics, and the cultural, economic, social, and political forces that influence and shape Black cinema in America.

**AFRS 256 Hip Hop Workshop (3) [GE]**

History, aesthetics, mechanics, and politics of Rap music and Hip Hop culture. African American aspects and African-centered qualities of the cultural movement known as Hip Hop.

**AFRS 260 Introduction to African Languages (3) [GE]**

Modern African languages: Lingala, Manding, Sosso, Yoruba, Nge as spoken in Africa. Instruction in understanding, speaking, and reading. Emphasis on spoken language communication. May be repeated for a total of 9 units as topics vary.

**AFRS 266 Black On-line: Cyberspace, Culture, and Community (3)**

The impact of the information revolution and the digital divide on Black people worldwide. Understanding the need to blend cyber technology with the issues of Black culture and community. Fully on-line class; must have e-mail address.

**AFRS 290 Malcolm X in the Context of Black Nationalism (3) [GE]**

Critical examination of Malcolm X--his political, spiritual, economic, and social philosophy and programs in the historical context of Black nationalism. Review of his legacy in contrast and comparison to other Black leaders such as Martin Luther King.

**AFRS 300 From Africa to Olmec America: Ancient African Prehistory and History (3)**

Early African civilization and pre-colonial era: history of the ancient empires of Nubia, Ethiopia, Congo, Zimbabwe, Zulus, etc. History of colonialism; patterns of annexation; journey of Africans from Africa to the Caribbean, Latin and South America, and the U.S.

**AFRS 301 Africa in Global Perspective (3) [GE]**

Physical, social, cultural, political, technological, economic, and business environment of Africa; policy determinants influencing economy; polity and business systems; interactions between modern development theory, world political economy, and domestic policy; strategies and constraints to reverse underdevelopment.

**AFRS 302 Black Diaspora (3) [GE]**

Dynamics of Black dispersal, 15th to 20th centuries; cross-currents and interactions within the Black world; constraints on the formation of Black solidarity movements; contemporary movements.

**AFRS 303 African American History (3) [GE]**

*Prerequisites: AFRS 300, AFRS 301 or equivalent.* Recurrent themes and issues in Black history since the 19th century. Reconstruction and the emergence of mass movements and counter-ideologies.

**AFRS 304 Black People and the American Experience (3) [USH]**

History of Black people and their American experiences from 1770 to 1954. Important constitutional, political, economic, and cultural issues as they developed nationally and locally. (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**AFRS 305 Ancient Egypt (3) [GE]**

History, religion, culture, economic system, and dynastic periods of the world's greatest ancient civilization, Egypt or KMT, the Black country.

**AFRS 310 Anthropology of Blackness (3)**

*Prerequisite: upper division standing or consent of instructor.* Examination of anthropological theory, research and practice as it relates to constructions of blackness as well as African-diasporic identities. African-diasporic contributions to anthropology, anthropological research and theory concerning Africana identities will be explored.

**AFRS 312 Kalifia: The Black Heritage of California (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* African American presence in the Golden State; the Black heritage in the establishment, development, and evolution of California from the Gold Rush era to the present.

**AFRS 320 Black Politics, Mass Movements, and Liberation Themes (3) [GE]**

Theoretical constructs and basic premises that draw on political experiences of Black people. Review of political science theories as they have been applied to Blacks in the U.S.

**AFRS 326 Black Religion (3) [GE]**

Philosophical bases of contemporary Black religious movements. Reformation of traditional African, Islamic, and Christian religious concepts.

**AFRS 335 The Black Woman: A Cultural Analysis (3) [GE]**

Black women in the Americas, the Caribbean, and on the African continent: their struggles for rights as Blacks and as women, their contribution to the development of their societies, their political aptitude, and their artistic adeptness.

**AFRS 340 Economics of the Black Community (3) [GE]**

Economic problems of Black people. Role of Black labor in the American capitalistic economy. Welfare schemes and Black reaction to population control.

**AFRS 345 Blacks in Urban America (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Structural and cultural conditions such as poverty, economics, welfare and political arrangements that impact urban America; particular attention to ways in which Black communities examine how poverty and race influence social policy and effective strategies and solutions for change.

**AFRS 350 Black-Indians in the Americas (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with AIS 350/ LTNS 355. For course description, see AIS 350/LTNS 355. (May not be repeated under alternate prefix.)

**AFRS 370 Health, Medicine, and Nutrition in the Black Community (3)**

*Prerequisite:* upper division status. Theoretical and practical implications of health and healing in the Black community today. Personal and community perspectives. Historical health disparities in Black community. Includes interactive class activities and presentations from people in the community working to address these issues.

**AFRS 375 Law and the Black Community (3) [GE]**

Contemporary and historical investigations of city, state, and federal laws and how they affect the human rights, self-determination, and survival of the Black community in America. Administration of justice by court, police, security, and legislative agencies.

**AFRS 376 Government, the Constitution, and Black Citizens (3) [USG,CSLG]**

Nature and source of constitutional power—federal and state. Interaction of the Supreme Court with the Congress and with the Presidency; constitutional issues involving poor and Black citizens. Satisfies the U.S. government and the California state and local government requirement. (Fulfills the U.S. Government and California State and Local Government components of the U.S. History and Government Requirement). [CSL may be available; consult index for page reference.]

**AFRS 382 African American Economic History (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Factors which have constrained historically the economic status of African Americans in the labor market; industries and occupations; relationships to trade unions. How all these affect the income position of African American families.

**AFRS 400 Black Arts and Humanities (3) [GE]**

Creative efforts of Black writers and artists. Values expressed in these works and their relation to African-American culture.

**AFRS 411 African and African American Literature (3) [GE]**

Literature of Blacks of two continents. Cultural phenomenon of the critical impact of American Black authors on African writing and perspective.

**AFRS 450 African Philosophy and Cosmology (3) [GE]**

*Prerequisite:* upper division standing. Foundations of Black philosophy from ancient Africa to the present. Theories of knowledge and thought within the social and political context.

**AFRS 515 Black Family Studies (3) [GE]**

Structure, history, and functioning of the Black family: African cultural traditions related to Black family life.

**AFRS 516 Research Methods (3)**

Application of research methods to Black populations and the Black community.

**AFRS 525 Black Child Development (3) [GE]**

Analysis of both the traditional theoretical approaches to the study of Black children and innovative approaches: areas of cognitive development, socialization, education, personality development, and the social context of childhood.

**AFRS 600 Proseminar in Africana Studies (3)**

*Prerequisite:* senior standing or consent of instructor. Educational, sociological, psychological, political, economic, historical, and cultural aspects of the Black experience particularly as these pertain to Africana Studies curricula and programs.

**AFRS 645 Literature of the Harlem Renaissance (3)**

*Prerequisite:* passed 214 or equivalent, or consent of instructor. Reading of Harlem Renaissance writers including Countee Cullen, Nella Larsen, Zora Neale Hurston, and Langston Hughes. Hone reading and analytical writing skills through essays, class discussion, and structured group work.

**AFRS 646 Frantz Fanon's Psychology of Violence, Negation, and Liberation (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. A critical discussion of human oppression and liberation. A study of the writings of Frantz Fanon and their use to understand various paradigms of oppression, the psychology of liberations, objectification, and negation and the psychological value of African centered thought.

**AFRS 655 The Battle for Black Studies (3)**

*Prerequisite:* upper division standing or consent of instructor. Focus on the development of Black Studies departments in colleges/universities in the U.S., including an in-depth examination of SFSU as a case study. Analysis of the development, institutionalization, and discontinuation of programs from the 1960s to the present.

**AFRS 660 Civil Rights Movement and Education (3)**

*Prerequisite:* upper division standing or consent of instructor. The civil rights movement and its impact on the education of Black children and youth. Implications of equal access and justice from Brown vs. Board of Education to contemporary issues in urban schools; desegregation and leadership; historically Black colleges and educational alternatives.

**AFRS 665 Black Journalism (3)**

*Prerequisite:* upper division standing or consent of instructor. History, social role, function, and organization of print and broadcast journalism in relation to Black Americans. Writing, planning, and publication of papers and magazines. May be repeated for a total of 6 units.

**AFRS 678 Urban Issues of Black Children and Youth (3) [GE]**

*Prerequisites:* upper division standing or consent of instructor. Examination of Black children and youth by understanding Black culture and history, behavior patterns, language, attitude, and family backgrounds; the role of education in African American traditions, stressing strategies for attaining excellence in an equitable environment.

**AFRS 685 Projects in the Teaching of Africana Studies (1-4)**

*Prerequisites:* upper division standing and consent of instructor. Academic service learning practicum/internship experience as an undergraduate instructional aide. Participation in the teaching of a regular instructionally-related class. Limited to undergraduate students only. May be repeated for a total of 4 units.

**AFRS 694 Community Service Learning (1-3)**

*Prerequisites:* upper division standing or consent of instructor. Must be taken concurrently with a Africana studies course supporting community service learning. Community service learning activity course. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

*Graduate Course***AFRS 705 Seminar in Africana Studies (3)**

*Prerequisite:* consent of instructor. Historical and intellectual foundation of the Africana Studies discipline: critical knowledge base, cultural grounding, intellectual orientation. Major philosophical, cultural, political, economic, and social developments and traditions found in African and African American society.

**ALL UNIVERSITY***Undergraduate Courses***A U 100 Freshman Orientation Seminar (1)**

Introduction to the mission and structure of the university and the goals of higher education; electronic communication and information competency; academic skill development; personal and interpersonal skills related to academic success. ABC/NC grading.

**A U 101 First Year Experience (3)**

Goals of higher education; mission and structure of the university; communication and information competency; academic skill development; personal and interpersonal skills related to academic success. (Plus-minus ABC/NC; CR/NC allowed.) [CSL may be available; consult index for page reference.]

**A U 280 Community Service Learning Option (1-2)**

Must be enrolled concurrently in a university course offering community service learning (CSL) opportunity. Students perform community service and reflect on their experience as required by concurrent course. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**A U 425 Advanced Peer Advising (0)**

*Prerequisite:* COUN 325, Peer Counselor Training, or consent of instructor. Advanced leadership, communication and peer advising skills, as well as university rules, regulations, and services. Students take a meaningful role in the undergraduate orientation and/or peer advising program. (CR/NC grading only.)

**A U 600 Willie Brown Internship Seminar (3)**

*Prerequisite:* Willie Brown intern. Overview of public sector issues at the local level; focus on professional development and career pathways. Guest speakers will discuss topics related to the public sector.

**A U 693 Cooperative Education Program (1-12)**

*Prerequisite:* A U 293. Intended for all academic majors. Supervised employment in academically relevant fields of study. Objectives are career development, occupational experience, and educational subsidy. Contact the Cooperative Education office for information. CR/NC grading only. May be repeated for a maximum of 24 units.

**A U 694 Integrating Interdisciplinary Perspectives on Study Abroad (1) [GE]**

*Prerequisites:* ENG 214 or equivalent; acceptance into a study abroad program. Culminating experience for students fulfilling GE Segment III through Study Abroad: Exploring Cultural Diversity. Student works with a faculty advisor to complete a paper of ten or more pages that integrates disciplinary perspectives gained from study abroad with the student's own experiences living in a different culture.

**A U 697 Tutoring Across Disciplines: Skills and Practices (2)**

*Prerequisites:* upper division or graduate standing and consent of instructor. Current topics, principles, philosophy, and practice of tutoring across disciplines in a university academic tutoring setting. Interactive instruction and experience in techniques, strategies and communication for effective tutoring and learning.

*Graduate Course***A U 793 Cooperative Education Program (1-3)**

*Prerequisite:* graduate adviser or faculty approval. Intended for all academic majors. Supervised employment in academically relevant fields of study. Objectives are career development, occupational experience, and educational subsidy. CR/NC grading only. May be repeated for a maximum of 3 units.

**AMERICAN INDIAN STUDIES***Undergraduate Courses***AIS 100 Introduction to American Indian Studies (3)**

Introduction to American Indian Studies: the histories, cultures, identities and contemporary issues of the indigenous American Indian, Alaskan Native and Native Hawaiian groups. Topics range from colonialism, racialization, social formation, identity politics, and environmental issues to law and politics.

**AIS 150 American Indian History in the United States (3) [GE]**

The major indigenous cultures residing in the present U.S.; regional groups, structures, world views; major events that took place between the first Americans and new Americans from contact up to 1930.

**AIS 160 Survey of Native California (3)**

Native California from origin to contemporary times. Comparative data, adaptive strategies and relations between the indigenous populations and European and Anglo-American contact.

**AIS 162 American Indian Oral Literature (3) [GE]**

Traditional Indian literatures: legend, origin stories, pre-contact poetry, oratory, and stories of the people. Forms, styles, images, and themes used by selected tribes to express the experience of their daily lives.

**AIS 205 American Indians and U.S. Laws (3) [USG, CSLG]**

The legal history that has developed between the earliest settlers and the existing peoples of the American continent. Legal and social concepts that the settling communities had toward Indian Nations. (Fulfills the U.S. Government and California State and Local Government components of the U.S. History and Government Requirement) [CSL may be available; consult index for page reference.]

**AIS 230 Urban Indians (3) [GE]**

Comparative examination of American Indian experiences in urban areas, in distinction from reservation and rural life.

**AIS 235 American Indians: Image and Issues in the Mass Media (3) [GE]**

Recurring images and treatment of American Indians, especially in film, television, advertising, popular literature, and commercial arts. Cultural, economic, social, and political forces that influence image and artistic expression.

**AIS 260 American Indian Health and Cultural Recovery (3)**

Native-based models of health and wellness and contemporary health disparities resulting from colonization. Traditional health models and concepts from different tribal perspectives as integrated into daily practices and ways American Indians combine the best of traditional and modern medicine.

**AIS 300 American Indian Studies Research Methodologies (3)**

*Prerequisite:* AIS 100 (may be concurrent), ENG 214 or equivalent, and upper division standing. Overview of social scientific and literary theories/methods useful in the gathering and study of data on historical and contemporary American Indian nations, tribal groups, communities, individuals, and literature.

**AIS 310 American Indian Religion and Philosophy (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Religious and philosophical aspects of the life styles of certain plains tribes in what is now called the U.S. Ancient religion, visions, and deity structures and how they have survived and have been modified by the impact of European cultures.

**AIS 320 American Indian Music (3) [GE]**

*Prerequisite:* AIS 100 or consent of instructor. Relationships among music, cultural perspectives, and collective and individual selves of American Indians, Alaskan Natives, and Native Hawaiians. (Formerly AIS 220.)

**AIS 325 American Indian Art (3) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Contemporary and comparative examination of American Indian art, including American Indian theories of art and connections of art with other forms of cultural expression such as novels, poetry, songs, dances, and oral histories.

**AIS 330 American Indian Law (3)**

*Prerequisite:* upper division standing or consent of instructor. Introduction to Native epistemologies, worldviews, social structures and institutions relating to customary or "traditional" law, governance, justice, and ethics; overview of customary perspectives and practices; examination of contemporary revitalization efforts to restructure colonial paradigms of Native governance.

**AIS 350 Black-Indians in the Americas (3)**

*Prerequisite:* upper division standing or consent of instructor. Examines factors impacting on multiracial identity formation among Native communities throughout the Americas with a specific focus on Black-Indians; explores concepts and theories regarding blood quantum, sovereignty and land rights, and the social, legal, and political understanding of mixed-race Native Americans. (Cross listed with AFRS 350/LTNS 355. May not be repeated under alternate prefix.)

**AIS 400 American Indian Education (3)**

*Prerequisite:* upper division standing or consent of instructor. Content, curriculum, and structure of education in reservation and off-reservation schools. Problems, goals, innovative restructuring, proposals for future.

**AIS 410 Perspectives of Native California Indians (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cultural and historical perspective of California Indians. Contemporary problems, issues, and developments involving American Indians, both urban and rural.

**AIS 420 American Indian Women (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Social systems of American Indian cultures and the role of women in these societies. Democratic consensual social structures as equality was a feature in American Indian societies. Comparison with Euro-American structures.

**AIS 430 American Indian Sovereignty (3)**

*Prerequisite:* upper division standing or consent of instructor. Examination of American Indian sovereignty as a culturally embedded term within areas of law, policy, legal theory, and political debate. Classic works and comparative emphasis studies address the construction of sovereignty in international, federal/state, and tribal law and policy. [CSL may be available; consult index for page reference.]

**AIS 450 American Indian Science (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. American Indian sciences, theory and practice, traditional herbology, agricultural and environmental sciences, methods of food production, preservation, and preparation. Indian architectural modes and thermal clothing used by tribes from six regions of North America.

**AIS 460 Power and Politics in American Indian History (3) [USH]**

*Prerequisite:* upper division standing or consent of instructor. Modern political and social issues arising from U.S.-American Indian relations: land, water, civil, and tribal rights with underlying historical and attitudinal differences behind these problems. (Fulfills the U.S. History component of the U.S. History and Government Requirement) [CSL may be available; consult index for page reference.]

**AIS 490 Ancestors or Data?: Culture, Conflict and NAGPRA (3)**

*Prerequisite:* upper division standing or consent of instructor. Political struggles surrounding the creation and implementation of the 1990 Native American Graves Protection and Repatriation Act (NAGPRA). Analysis of the law, impact of recent court decisions and specific focus on cultural conflicts related to the concept of knowledge. (Cross listed with ANTH 490/SOC 491. May not be repeated under alternate prefix.)

**AIS 500 Language and Cultural Systems of North American Indians (3)**

*Prerequisite:* AIS 100 or consent of instructor. Relationship between American Indian language and culture, including topics and skills related to language learning and the historical conditions of cultural retention and revitalization efforts. (Cross listed with ANTH 500. May not be repeated under alternate prefix.)

**AIS 520 Before the Wilderness: American Indian Ecology (3)**

*Prerequisite:* upper division standing or consent of instructor. Examines the environmental thought, ecological worldviews, and resource management practices of North American native peoples; reviews how European and American colonists justified the expropriation of native lands, the different perceptions of land and its connections to major ecological and cultural change.

**AIS 535 American Indian Film (3)**

*Prerequisite:* ENG 214 or equivalent; upper division standing. Examines how Native peoples have used film as a means of reclaiming and representing their histories, cultures, and identities. (Plus-minus letter grade only.)

**AIS 550 American Indians in Contemporary U.S. History (3)**

*Prerequisite:* upper division standing or consent of instructor. Overview of the historical lived realities of major indigenous cultures and people residing within the present day boundaries of the United States from 1930 through 2000. (Plus-minus letter grade only)

**AIS 680 American Indian Studies Senior Seminar (3)**

*Prerequisites:* AIS 300 and 694. Directed guidance leading to the completion of a senior research project based on intensive study of a topic or problem related to American Indian peoples.

**AIS 685 Projects in the Teaching of American Indian Studies (1-4)**

*Prerequisites:* upper division standing and consent of instructor. Academic service learning practicum/internship experience as an undergraduate instructional aide. Participation in the teaching of a regular instructionally-related class. Limited to undergraduate students only. May be repeated for a total of 4 units.

**AIS 694 Community Service Learning (1-3)**

*Prerequisites:* consent of instructor. Must be taken concurrently with any AIS course offering opportunity for community service learning. Community service learning to be taken with any AIS course that supports community service learning. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**AIS 699 Special Study (1-3)**

Supervised, individual study of a particular problem in American Indian studies. Student may select the supervisor and must state the problem, the method of data gathering, and the method of data analysis. AIS 699 is repeatable for a maximum of 6 units.

**Graduate Course****AIS 701 Seminar in American Indian Studies (3)**

*Prerequisite:* consent of instructor. Issues in the study of American Indians: understanding of the Indian tribes and nations as sovereign political entities; political, economic, and social developments of self-determination and its implications for Indian tribes.

**AMERICAN STUDIES****Undergraduate Courses****AMST 300 Perspectives on American Culture (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. American culture from the perspectives of different social sciences. American national character, social thought, and political order. (Cross listed with S S 410. May not be repeated under alternate prefix.)

**AMST 310 The Arts and American Culture (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Figures in visual, literary, and performing arts who have reflected American culture through mastery of their arts; relationships between arts in periods of American cultural development. (Cross listed with HUM 485. May not be repeated under alternate prefix.)

**AMST 410 California Culture (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Dynamics of California society and culture in recent times; world oasis, flawed paradise, lifestyle crucible, and creative milieu; function in American culture and Pacific relations. (Cross listed with HUM 450. May not be repeated under alternate prefix.)

**ANTHROPOLOGY****Undergraduate Courses****ANTH 100 Introduction to Biological Anthropology (3) [GE]**

Human beings in relation to the animal kingdom, geological time, and human evolution; fossil humans; human heredity; anthropometry; criteria of race; racial theories and problems.

**ANTH 110 Introduction to Archaeology (3) [GE]**

Old and New World prehistory: discovery and invention, domestication of plants and animals, science, technology, and other aspects of culture.

**ANTH 120 Introductory Social and Cultural Anthropology (3) [GE]**

Principles and concepts of sociocultural anthropology. People and environment. Social relations: kinship, religion, social control, racism. Social change and applied anthropology.

**ANTH 300 Foundations of Anthropology: History (3)**

*Prerequisites:* ANTH 100, ANTH 110, and ANTH 120. Theoretical foundations of anthropology: major trends in anthropological thought and practice up to the present.

**ANTH 301 Foundations of Archaeology (3)**

*Prerequisites:* ANTH 110, upper division standing, or consent of instructor. Introduces and develops archaeological theory in its archaeological-anthropological paradigms with emphasis on the role of material culture. (Formerly ANTH 340)

**ANTH 302 Foundations of Human Variation (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Examines the nature and extent of heritable differences among human populations in an evolutionary perspective. The role of genetics and environment in the formation of these differences is considered, as well as the social and biological concept of race. (Formerly ANTH 332)

**ANTH 305 GW Writing Anthropology-GWAR (3)**

*Prerequisites:* ENG 214 or equivalent with grade of C- or better, ANTH 120. Advanced development of writing skills in anthropology; descriptive, interpretive, critical analyses, popular media, and scholarly research. Regional or topical theme varies. ABC/NR grading only.

**ANTH 310 Family, Kin, and Community (3) [GE]**

*Prerequisite:* introductory course in social/cultural anthropology and upper division standing. Comparative study of the family structures, kinship systems, gender, and age relations, and forms of community organization across the globe, spanning both non-industrial and post-industrial peoples and cultures.

**ANTH 315 Regional Ethnography (3)**

*Prerequisite:* ENG 214. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ANTH 316 Contemporary Culture of Greece (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with MGS 316. For course description, see MGS 316. (May not be repeated under alternate prefix.)

**ANTH 318 Islam: Interpretation and Practice (3)**

*Prerequisite:* upper division standing. Cross listed with MEIS 301. For course description, see MEIS 301. (May not be repeated under an alternate prefix.)

**ANTH 319 Cultures of the Middle East and North Africa (3) [GE]**

*Prerequisites:* ENG 214 or equivalent and upper division standing. An introduction to the variety of cultures and communities in the Middle East and North Africa. Differences in history, religion, social organization, language, politics, and power are highlighted in lectures, ethnographies, and film.

**ANTH 320 Racism: Cross-Cultural Analysis (3) [GE]**

*Prerequisite:* Upper division standing or consent of instructor. Cultural history of racism as related to colonialism and imperialism. Racism as on-going intellectual, political movement. Anti-racism and educational-anthropological methods to defeat racism. (Cross listed with CST 320. May not be repeated under alternate prefix.)

**ANTH 321 Endangered Cultures (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Interaction between non-industrial and industrial societies; cultural degradation and extermination of non-industrial societies beginning 150 years ago.

**ANTH 325 Class: Cross-Cultural Analysis (3)**

*Prerequisites:* upper division standing or consent of instructor. Exploration of the cultural production of class and status in a comparative perspective. Reading of theoretical texts as well as ethnographies, exploration of class markers, and the production of distinction in students' own lives.

**ANTH 327 Anthropology and Film (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Social and cultural anthropology through films, ethnographies, and popular writings of anthropologists. (Cross listed with CINE 327. May not be repeated under alternate prefix.)

**ANTH 333 Primate Behavior (3)**

*Prerequisite:* upper division standing or consent of instructor. Social behavior of prosimians, monkeys, and apes. Reproduction, play, communication, aggression, ranging, and territoriality. Interrelationships between ecology and social organization.

**ANTH 343 Women and Work (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with S S/LABR 343. For course description, see S S 343. (May not be repeated under alternate prefix.)

**ANTH 356 Archaeology of California (3)**

*Prerequisite:* upper division standing or consent of instructor. Prehistoric heritage of California's Native American cultures studied in the comparative light of ethnohistoric and ethnographic data. Archaeological focus on culture-history, economy, settlement pattern, ecology, political organization, and processual adaptation.

**ANTH 415 Culture and Sex in East Asia (3) [GE]**

*Prerequisites:* ANTH 120 and upper division standing or consent of instructor. Examines from the perspective of critical anthropology on the role of culture in sex/gender power relations in East Asian societies. (Cross listed with SXS 438. May not be repeated under alternate prefix.)

**ANTH 420 Indigenous Media and Social Change (4)**

*Prerequisite:* completion of all GE Segment I requirements and upper division standing. Cross listed with SOC 420. For course description, see SOC 420. (May not be repeated under alternate prefix.)

**ANTH 471 The Ancient Maya (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Civilization of the Maya Indians of Mexico and Guatemala. Recent findings in Maya archaeology and on interpretations of Maya history, politics, art, economy, and writing.

**ANTH 481 Archaeology of the Far East (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. An anthropological/archaeological examination of the development of human culture in eastern Asia. Archaeological data and interpretation of the Asian Paleolithic, Neolithic, and the foundation of Asian cultures as civilizations.

**ANTH 490 Ancestors or Data?: Culture, Conflict and NAGPRA (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with AIS 490. For course description, see AIS 490. (May not be repeated under alternate prefix.)

**ANTH 500 Language and Cultural Systems of North American Indians (3)**

*Prerequisite:* AIS 100 or consent of instructor. Cross listed with AIS 500. For course description, see AIS 500. (May not be repeated under alternate prefix.)

**ANTH 501 Latin America: The National Period (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST/S 501 and LTNS 501 [formerly RAZA 501]. For course description, see HIST 501. (May not be repeated under alternate prefix.)

**ANTH 515 The Two Koreas (3)**

*Prerequisite:* upper division standing. Examines the Korean problem of unification in the historical context of US-Korea relations and sociocultural and political developments in the two antagonistic states on the Korean peninsula. (Cross listed with IR 515. May not be repeated under alternate prefix.)

**ANTH 525 Diversity in the Workplace (3) [GE]**

*Prerequisite:* upper division standing. Cross listed with LABR/S 525. For course description, see LABR 525. (May not be repeated under alternate prefix.)

**ANTH 530 Human Osteology Practicum (4)**

*Prerequisite:* ANTH 100. Human skeleton, bone dynamics, and anthropometric and morphological analysis of modern and fossil skeletal materials. Research on osteological and fossil materials. Paired with ANTH 730. Students who have taken ANTH 730 may not take ANTH 530 for credit. Classwork, 2 units; laboratory, 2 units. (Formerly ANTH 330)

**ANTH 531 Fossil Humans Practicum (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. The fossil evidence for human evolution. Comparative primate anatomy and function; skeletal morphology of hominid fossils. Ecological and geological settings. Trends and processes in human evolution. Paired with ANTH 731. Students who have taken ANTH 731 may not take ANTH 531 for credit. Classwork, 2 units; laboratory, 2 units. (Formerly ANTH 331)

**ANTH 535 Paleopathology (3)**

*Prerequisite:* ANTH 530/730 or consent of instructor. Bioarchaeology of disease and human health. Evolutionary, cultural, and biological factors of prehistoric epidemiology. Paired with ANTH 735. Students who complete ANTH 535 may not take ANTH 735 for credit.

**ANTH 545 Bioarchaeology (3)**

*Prerequisites:* ANTH 530 or consent of instructor. Reconstruction of past lifeways from examination of the human skeleton. Patterns of subsistence, diet, disease, demography, and physical activity reconstructed from skeletal populations.

**ANTH 555 Urban Anthropology (3) [GE]**

*Prerequisites:* one course in cultural anthropology and upper division standing or USP 400. Impact of urban environments upon human behavior cross-culturally. Ethnographic fieldwork techniques, the history and theoretical roots of urban anthropology, and case studies from around the world. (Cross listed with USP 555. May not be repeated under alternate prefix.)

**ANTH 557 Ethnography of the Inner City (4)**

*Prerequisite:* ANTH 555. Participant-observation fieldwork techniques; research projects in inner city communities in the Bay Area. Classwork, 3 units; activity, 1 unit. (Cross listed with USP 557. May not be repeated under alternate prefix.)

**ANTH 569 Cross-Cultural Aspects of Sex and Gender (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Sex, sexuality, and gender; the control of sexuality, cultural components of gender role and gender identity, and symbolic aspects of sex and gender. (Cross listed with SXS 567. May not be repeated under alternate prefix.)

**ANTH 581 Anthropology and Folklore (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Nature and form of folklore, its cultural setting, transmissions and dynamics. Psychological, ethnic, and philosophical considerations of folklore and its relationship to drama, art, and music.

**ANTH 585 Globalization and World Cultures (3) [GE]**

*Prerequisite:* ANTH 120 or consent of instructor. Effects of globalization and multinational corporations on cultures. Examination of contemporary globalization from a combined political-economic and cultural anthropological perspective. (Cross listed with CST 585. May not be repeated under alternate prefix.)

**ANTH 588 Anthropology and Human Rights (4)**

*Prerequisites:* ENG 214 and upper division standing. Globalization of human rights in the post-war era from an anthropological perspective. Cultural imperialism and political economy as ways to consider how human rights are constituted; transnational discourse and a field of action. Paired with ANTH 788. Students who complete ANTH 588 may not take ANTH 788 for credit. Classwork, 2 units; field work, 2 units.

**ANTH 590 Anthropology of Women (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Ethnographic, physical, anthropological, and pre-historical materials on women. Theories on origins of the family, social structuring of sexuality, and changing sex and gender in modern societies. (Cross listed with CST 590/WGS 595. May not be repeated under alternate prefix.)

**ANTH 591 Applied Anthropology Media Workshop (4)**

*Prerequisites:* ANTH 120 or equivalent, upper division standing or consent of instructor. Carrying out ethnographic media projects for local, community-based organizations. Principles of visual anthropology, ethnographic research, and community-based learning are linked to learning practical skills of digital media production.

**ANTH 592 Archaeological Methods (4)**

*Prerequisite:* ANTH 110. Archaeological theory and methods; field reconnaissance, research design, excavation and laboratory methods; archaeological chronology, typology, cartography, photography, and other skills. Classwork, 2 units; laboratory, 2 units. (Formerly ANTH 491)

**ANTH 595 Visual Anthropology I (6)**

*Prerequisites:* ANTH 120, 300, and consent of instructor. Priority given to anthropology majors. Introduction to ethnographic digital video production, including methods of ethnographic fieldwork, creation of field notes, and research design; basics of digital video planning, production and editing. Classwork 3 units; laboratory and fieldwork 3 units. [CSL may be available; consult index for page reference.]

**ANTH 596 Visual Anthropology II (4)**

*Prerequisite:* ANTH 595 or consent of instructor. Advanced filmmaking-based applied anthropological fieldwork, collaboration, and digital post-production techniques. Students complete a film for which they conducted research during the previous semester. Classwork, 2 units; lab and fieldwork, 2 units. [CSL may be available; consult index for page reference.]

**ANTH 609 Approaches to Africa Past (3)**

*Prerequisites:* ENG 214, upper division standing, or consent of instructor. Cross-listed with HIST 609. For course description, see HIST 609. May not be repeated under alternate prefix.

**ANTH 630 Medical Anthropology (3)**

*Prerequisite:* consent of instructor. The interplay of culture, genetics, population, and environment; cross-cultural medical education; folk and urban medical systems as moral, social, and cognitive systems.

**ANTH 651 Ethnographic Field Methods (6)**

*Prerequisite:* ANTH 310 or consent of instructor. Anthropological data-gathering methods, participant observation, scheduled and open-ended interview, life history, survey, questionnaire, projective techniques, electronic aids. May be repeated once. Classwork, 2 units; field work, 4 units.

**ANTH 652 Anthropological Statistics (4)**

*Prerequisite:* ANTH 300 or consent of instructor. Methods and techniques for analysis of data: collecting and describing data; statistical inference and hypothesis testing; parametric and non-parametric techniques; SPSS training for data analysis. Classwork, 2 units; laboratory, 2 units.

**ANTH 657 Ethnology of Dance (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with DANC 657. For course description, see DANC 657. (May not be repeated under alternate prefix.)

**ANTH 685 Projects in Teaching Anthropology (1-3)**

*Prerequisites:* minimum grade of B in course the student will be assisting in and consent of instructor. Training and assistance in the teaching of anthropology. Students work as teaching assistants to instructors and receive training and instruction in teaching anthropology. Responsibilities include working with supervising faculty, assist in preparing course material, tutoring students, and conducting small discussions. CR/NC grading only. May be repeated for a total of 4 units.

**ANTH 690 Senior Thesis (4)**

*Prerequisite:* major GPA 3.25 and successful completion with a grade of B or better in the following courses: 100, 110, 120, 300, and 310. Provides qualified students the opportunity to undertake a senior thesis. Supervised study of a topic mutually agreed upon by student and faculty.



**ANTH 695 Anthropology Internship (3)**

*Prerequisites:* ANTH 300, 301 or 302. Internship in research, governmental and non-governmental agencies, museums and other public and private institutions. Students must find an anthropology faculty to serve as the academic supervisor. May be repeated for 6 units for degree credit.

**ANTH 699 Special Study (1-3)**

*Prerequisites:* consent of major adviser, department chair, and instructor. Supervised, individual study of a particular problem in anthropology. The student must state the problem, method of data-gathering, and the method of data-analysis. [CSL may be available; consult index for page reference.]

*Graduate Courses***ANTH 701 Sexual Cultures, Sexual Identities (3)**

*Prerequisite:* graduate status or consent of instructor. Cross listed with SXS 701. For course description, see SXS 701. (May not be repeated under alternate prefix.)

**ANTH 710 Proseminar in Anthropological Theory and Method (3)**

*Prerequisite:* graduate status in anthropology or consent of instructor. Directed application of anthropological theory, methods and research techniques. Cannot be repeated for credit. Must be taken before or concurrently with other graduate seminars.

**ANTH 720 Topics in Graduate Anthropology (3)**

*Topic to be specified in Class Schedule.* Trends, data, and methodology beyond the coverage of the four subdiscipline general graduate seminars. May be repeated when topics vary. Classwork, 2 units; laboratory, 1 unit.

**ANTH 730 Human Osteology Practicum (4)**

*Prerequisite:* graduate standing. For course description, see ANTH 530. Paired with ANTH 530. Students who have taken ANTH 530 may not take ANTH 730 for credit. Classwork, 2 units; laboratory, 2 units.

**ANTH 731 Fossil Humans Practicum (4)**

*Prerequisite:* graduate standing. For description, see ANTH 531. Paired with ANTH 531. Students who have taken ANTH 531 may not take ANTH 731 for credit. Classwork, 2 units; laboratory, 2 units.

**ANTH 735 Paleopathology (3)**

*Prerequisite:* ANTH 530/730 or consent of instructor. Paired with ANTH 535. See ANTH 535 for course description. Students who complete ANTH 735 may not take ANTH 535 for credit.

**ANTH 740 Seminar in Archaeological Problems (3)**

*Prerequisites:* ANTH 491 and 710 or consent of instructor. Problems in archaeological theory and method, including synthetic techniques and culture-historical reconstruction. May be repeated once.

**ANTH 760 Seminar in Biological Anthropology (3)**

*Prerequisite:* graduate status and/or consent of instructor. Various aspects of current research and trends in biological anthropology. Fossil evidence, modern human variation, comparative anatomy, and behavior and evolutionary theory.

**ANTH 770 Seminar in Problems in Cultural Anthropology (3)**

*Prerequisite:* ANTH 710 or consent of instructor. Directed research in problems in cultural anthropology related to a specific cultural area, ethnic group, or specific topic. May be repeated once.

**ANTH 771 Domination and Resistance (3)**

*Prerequisite:* graduate standing or consent of instructor. Anthropological perspectives on domination, resistance, power, and agency. Traces the genealogy of debates from Marxist to post-structuralist approaches.

**ANTH 785 Teaching Anthropology (1-3)**

*Prerequisite:* Graduate standing. Minimum grade of B in course in which student will assist. Training and assistance in the teaching of anthropology.

**ANTH 788 Anthropology and Human Rights (4)**

*Prerequisite:* Graduate standing or consent of instructor. Paired with ANTH 588. See ANTH 588 for course description. Students who complete ANTH 788 may not take ANTH 588 for credit.

**ANTH 894 Creative Work Project (3)**

*Prerequisites:* advancement to candidacy for the Master of Arts and approval of major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**ANTH 897 Directed Thesis Advising and Support (3)**

Directed advising and support for development of theses and creative work projects both before and after enrollment in ANTH 894 or ANTH 898. Enrollment in ANTH 897 is required every spring semester until the culminating experience is completed. CR/NC grading only.

**ANTH 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the master's degree and consent of the chair of the thesis committee. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**ANTH 899 Special Study (1-3)**

*Prerequisites:* ANTH 710 and consent of student's graduate major adviser, department chair, and supervising faculty member. Individual research into a problem in anthropology. Student must state the problem, his method of data-gathering, and his method of data-analysis.

**APPAREL DESIGN AND MERCHANDISING***Undergraduate Courses***ADM 260 Textiles (3)**

*Prerequisite:* sophomore standing and above. Natural and chemical fibers; yarn and cloth construction; labeling, federal legislation, finishing, dyeing, stain removal, and detergency. (Formerly CFS 366.)

**ADM 261 Apparel Construction (3)**

*Enrollment limited to majors only or consent of instructor.* Principles and concepts in the clothing field. Pattern analysis, selection, fitting, and technical and experimental construction processes. Classwork, 2 units; laboratory, 1 unit. (Formerly CFS 160.)

**ADM 262 Fashion Illustration (3)**

Concepts, techniques, and media in illustrating contemporary and historical dress on the fashion figure. Classwork, 2 units; laboratory, 1 unit. (Formerly CFS 260.)

**ADM 265 Introduction to the Fashion Industry (3)**

The fashion industry: investigation of the design, manufacturing, and distribution of textile and apparel products for different markets. Career opportunities within all market segments. (Formerly ADM 160.)

**ADM 300 Designers of the 20th/21st Centuries (3)**

*Prerequisite:* Upper division standing. The impact that outstanding contemporary apparel and interior designers have on each other and the markets of both industries. Examination of common styles, media use, and characteristics of each designer as well as their typical market. (Cross listed with ID 300. May not be repeated under alternate prefix.) (Formerly CFS 310.)

**ADM 360 GW Fashion, Clothing, and Society - GWAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C or better. Enrollment limited to majors. Social, psychological, and economic forces which underlie fashion and affect both the consumer and the clothing market. Physiology and safety of clothing; clothing for specific individuals and family members. (ABC/NC grading only.)

**ADM 361 Apparel Design I: Flat Pattern (3)**

*Prerequisite:* ADM 261. Priority enrollment given to ADM majors. Trends in French and American fashion applied to the development of original designs by the flat pattern method. Development of basic pattern and fitting problems. Classwork, 2 units; laboratory, 1 unit. Extra fee required. (Formerly CFS 362.) Priority enrollment for ADM majors.

**ADM 362 Apparel Design II: Draping (3)**

*Prerequisite:* ADM 261. Priority enrollment for ADM majors. Original clothing designs by the French draping process. Historical perspective and influence on contemporary costume design. Classwork, 2 units; laboratory, 1 unit. Extra fee required. (Formerly CFS 363.)

**ADM 365 Textile Laboratory (1)**

*Prerequisite:* Majors only. Upper division standing. Yarn and cloth identification, textile fiber identification through microscopic and chemical testing; stain removal, detergency, dye, and finish tests. (Formerly CFS 367.)

**ADM 366 Forecasting Apparel and Interior Design Trends (3)**

*Prerequisites:* College level drawing course or consent of instructor; priority enrollment given to ADM/ID majors. Forces in society that influence apparel and interior design trends; data used to develop trend reports, color reports, retail reports, culminating in a professional forecasting presentation of colors, silhouettes, fabrications, and lifestyles. (Cross listed with ID 366. May not be repeated under alternate prefix.) (Formerly CFS 365.)

**ADM 369 Fashion Merchandising and Buying (3)**

*Prerequisites:* ADM 360. Priority enrollment given to ADM majors. Factors that affect the merchandising and management of fashion products. Buying functions and the differences of buying techniques used by various types of manufacturers and retailers. (Formerly CFS 369.)

**ADM 466 Computer Applications in Apparel Research (3)**

*Prerequisites:* ADM 360. Computer software applied to statistical analysis of data, research variables, and development of formal presentation of data based on apparel research. Extra fee required.

**ADM 560 Textiles and Apparel in the World Marketplace (3)**

*Prerequisite:* ADM 360GW; concurrent enrollment with ADM 600. World textile and apparel production and consumption. U.S. apparel import program including domestic policies and international agreements. U.S. textile and apparel exports, international apparel manufacturers and retailers.

**ADM 561 Culture and Historical Costume (3)**

*Prerequisites:* ADM 360 or equivalent. Variations in dress patterns developed from the study of historical and cultural influences on western clothing and textiles. (Formerly CFS 568.)

**ADM 566 Fashion and the Consumer (3)**

*Prerequisites:* ADM 360, ADM 466. Consumer influences: fashion, mass media, ready-to-wear market, demographics, societal trends, current developments and research in clothing and textiles; relation to behavior and satisfying clothing needs. (Formerly CFS 565.)

**ADM 569 Visual Merchandising and Promotion (3)**

*Prerequisites:* senior standing, ADM 369, ID 240, and a college level drawing class; concurrent enrollment with ADM 560 and ADM 600. Application of principles of visual presentation in window displays, point-of-purchase, and other retail venues. Practice with equipment, materials, and techniques used in presentation of merchandise. Principles and methods of promotion for manufacturers and retailers. (Paired with CFS 769. Students who complete CFS 769 may not take ADM 469 for credit.) (Formerly ADM 469)

**ADM 600 Professional Development (3)**

*Prerequisites:* graduating senior; completion of GVAR course, passing score on JEPET or ENG 411/414. Cross listed with CFS/ID 600. For course description, see CFS 600. (May not be repeated under alternate prefix.)

**ADM 661 Advanced Apparel Design Problems (3)**

*Prerequisites:* ADM 361, ADM 362; concurrent enrollment with ADM 560 and ADM 600. Clothing design problems related to specific populations. Development of design prototypes based on market analyses of fashion trends. Classwork, 2 units; laboratory, 1 unit. Extra fee required. (Paired with CFS 761. Students who have completed CFS 761 may not take ADM 661 for credit.)

**ADM 665 Product Development for Apparel (3)**

*Prerequisites:* ADM 260, ADM 265, ADM 360, ID 240, or consent of instructor. Design, merchandising, and quality assurance in the apparel and sewn products industry. Development and implementation of a design idea geared to a specific market.

**ADM 685 Projects in the Teaching of Apparel Design and Merchandising (1-3)**

*Prerequisites:* undergraduate standing in ADM, approval of supervising instructor, and grade of B or better in course in which student will be assisting. Teaching experiences in ADM through assigned instructional projects in a classroom and under the guidance of a member of the faculty. Training in pedagogical principles including supervised classroom teaching activities. May be repeated for a total of 4 units.

**ARABIC***Undergraduate Courses***ARAB 101 First Semester Arabic (5) [GE]**

Basic elementary Arabic. Conversation in the language, diction, reading, study of the fundamentals of grammar, simple oral and written exercises, and an introduction to Arabic-speaking cultures.

**ARAB 102 Second Semester Arabic (5) [GE]**

*Prerequisite:* ARAB 101 or equivalent. Continuation of First Semester Arabic.

**ARAB 103 Third Semester Arabic (5) [GE]**

*Prerequisite:* ARAB 102 or equivalent. Understanding, speaking, reading, and writing Modern Standard Arabic at the intermediate level. ARAB 104 Fourth Semester Arabic (5)

*Prerequisite:* ARAB 103 or consent of instructor. Continuation of ARAB 103. Expansion of vocabulary, comprehension, and communicative and writing abilities in Modern Standard Arabic at the intermediate level with a rich cultural component.

**ARAB 206 Intermediate Conversation (3)**

*Prerequisites:* ARAB 101 or equivalent or consent of instructor. The development of conversational skills focusing on topic-structures drills and activities appropriate to the context in which the language will be spoken.

**ARAB 401 Arab Culture and Identity in English (3)**

*Prerequisites:* ENG 214 and upper-division standing or consent of instructor. Arab cultures in context of history of Arab world, through its religious and ethnic diversity, Arab family structures, values, traditions and customs. Introduction of Arabic literatures and music. [Taught in English].

**ARAB 450 Contemporary Arabic and Arab American Literature (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ETHS 450. For course description, see ETHS 450. (May not be repeated under alternate prefix.)

**ARAB 600 Modern Arabic Literature and Film in English (3)**

*Prerequisites:* ENG 214 or equivalent. Fostering critical skills in reading literary texts and cultivating appreciation of literary concepts through different textual media. Understanding dynamics of exchange between modern Arabic fiction and film, including narrative elements.

**ARAB 650 Modern Arabic Fiction in English (3)**

*Prerequisite:* ENG 214 or consent of instructor. Introduction to modern Arabic literature and the intertwining of fiction and history. [Taught in English] (Paired with ARAB 850. Students who have completed ARAB 650 may not take ARAB 850 for credit.)

*Graduate Course***ARAB 850 Modern Arabic Fiction in English (3)**

*Prerequisite:* ENG 214 or consent of instructor. For description, see ARAB 650. Paired with ARAB 650. Students who have completed ARAB 850 may not take ARAB 650 for credit.

**ART**

*Students who are neither art majors nor minors, wishing to elect an art course, may have prerequisites waived only by consent of the instructor and by petition to the Art Department.*

*Undergraduate Courses*

**200 level courses:** Explorations in the various areas of the Art Department. Designed to serve as prerequisite experiences for upper division work.

**ART 201 Western Art History I (3) [GE]**

Conceptual and technical relationship of visual culture to the social, political, and economic life of the Ancient Greek, Ancient Roman, Byzantine, Early Medieval, Romanesque, Gothic, Renaissance, and Southern Baroque periods.

**ART 202 Western Art History II (3) [GE]**

Conceptual and technical relationship of visual culture to the social, political, and economic life of the Northern Baroque, Rococo, Neo-classical, Romantic, Impressionist, and Modernist periods.

**ART 205 Asian Art History (3) [GE]**

Conceptual and technical relationship of visual form to values in the art of China, Korea, Japan, India, Tibet, and South East Asia. (Cross listed with HUM 205. May not be repeated under alternate prefix.)

**ART 222 Introduction to Textile Art (3)**

*Prerequisite:* priority enrollment limited to art majors/minors. Studio experiences correlating textile media with basic techniques and processes. Laboratory. Extra fee required.

**ART 231 Drawing 1 (3)**

*Prerequisite:* priority registration limited to art majors/minors. Studio experiences with dry and wet materials. Basic linear, tonal and volumetric indication, perspective, composition, abstraction with other basic techniques and processes. Laboratory. Extra fee required.

**ART 235 Printmaking 1 (3) [GE]**

Studio experiences correlating drawing and printmaking media with basic techniques and processes. Activity. Extra fee required.

**ART 240 Sculpture 1 (3) [GE]**

Studio experiences exploring sculptural, theoretical, and visual processes using a variety of materials, methods, and context as means of investigation. Emphasis on personal creative growth and development. Laboratory. Extra fee required.

**ART 245 Ceramics 1 (3) [GE]**

Studio experiences correlating clay media with basic techniques and processes. Laboratory. Extra fee required.

**ART 260 Photography 1 (3)**

*Prerequisite:* priority registration limited to art majors/minors. Black and white film processing and printing. Study of photography as a creative medium. 35mm camera with manually adjustable apertures and shutter speeds required. Automatic cameras not acceptable. Laboratory. Extra fee required.

**ART 303 The Artist in the 20th-21st Centuries: Cultures in Collision--Cultures in Fusion (3)**

*Prerequisite:* upper division standing. Multi-cultural, multi-ethnic overview of selected topics in 20th-21st century art. Examines artists who have moved out of their own cultural frameworks to create alternative expressions.

**400 level courses:** Designed as basic disciplines within the various professional areas of the Art Department. College-level studio experiences and commitment in the discipline are required.

**ART 403 Queer Art History (3)**

*Prerequisites:* ART 201 or ART 202 or equivalent and consent of instructor. Case studies, primarily of Western art. Homophobia, censorship, reconstructing gay and lesbian history, major artists, visual codes, eroticism, lesbian feminism, families and communities, racial diversity, AIDS, other issues. (Cross listed with SXS 405. May not be repeated under alternate prefix.)

**ART 405 Art, Literature, and Power in the Renaissance (3) [GE]**

*Prerequisites:* ART 201 or 202 or equivalent. European renaissance and baroque art and literature, related to power structures affecting all aspects of culture and society. (Cross listed with HUM 405. May not be repeated under alternate prefix.)

**ART 406 Renaissance Art (3)**

*Prerequisites:* ART 201, ART 202, or equivalent. Painting, sculpture, and architecture of the 14th, 15th, and 16th centuries in Italy and Northern Europe.

**ART 410 Conceptual Strategies I (3)**

*Prerequisites:* upper division standing and/or consent of instructor. Must be taken concurrently with ART 412. Priority enrollment given to art majors. Conceptual strategies for artists: listing, indexing icons, language, chance, etc. Computers in art production. Laboratory. Extra fee required.

**ART 412 Computer Applications in Conceptual Design I (3)**

*Prerequisite:* upper division standing. Must be taken concurrently with ART 410. Priority enrollment given to art majors. Digital computer as a design tool. Programming to create and manipulate graphic imagery, including graphic, sound, and text events. No computer background required. Extra fee required.

**ART 422 Weaving I - Beginning (3)**

*Prerequisite:* ART 222 or equivalent. Basic weaving techniques using four harness looms. May be repeated for a total of 6 units on advisement. Laboratory. Extra fee required.

**ART 424 Surface Design Studio (3)**

*Prerequisite:* ART 222 or equivalent. Fundamental surface design techniques on fabric for producing two- and three-dimensional forms with emphasis on the design process and concept development. Studio activities from portfolio samples to larger fine art pieces are explored. May be repeated for a total of 6 units on advisement. Laboratory. Extra fee required.

**ART 431 Painting 1 (3)**

*Prerequisite:* ART 231 or equivalent. Priority enrollment given to art majors. Concepts, techniques, and disciplines of painting. Laboratory. Extra fee required.

**ART 432 Drawing 2 (3)**

*Prerequisite:* ART 231 or equivalent. Priority enrollment given to art majors. Drawing concepts and media. Laboratory. Extra fee required.

**ART 433 Figure Drawing (3)**

*Prerequisite:* ART 231 or equivalent. Priority enrollment given to art majors. Figure drawing concepts in varied media. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 434 Color Workshop (3)**

*Prerequisite:* ART 231 or equivalent. Priority enrollment given to art majors. Color vocabulary and theoretical concepts of color: Color is fundamental to painting and other disciplines. Pigments, dyes, inks. Laboratory. Extra fee required.

**ART 435 Printmaking Workshop: Relief (3)**

*Prerequisites:* ART 235 and 3 units of drawing from ART 231, 432, 433, 533, or equivalent. Relief workshop. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 436 Printmaking Workshop: Intaglio (3)**

*Prerequisites:* ART 235 and 3 units of drawing from ART 231, 432, 433, 533, or equivalent. Intaglio workshop. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 437 Printmaking Workshop: Lithography (3)**

*Prerequisites:* ART 235 and 3 units from ART 231, 432, 433, 533, or equivalent. Lithography workshop. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 438 Monoprinting (3)**

*Prerequisites:* ART 235 and 3 units of drawing from ART 231, 432, 433, 533, or equivalent. Exploration of process. Experimentation and re-evaluation of the medium and its relationship to traditional printmaking. May be repeated for a total of 6 units. Extra fee required. Laboratory.

**ART 440 Sculpture 2 (3)**

*Prerequisite:* ART 240 or equivalent. Priority enrollment given to art majors. Development of sculptural/artistic ideas, skills, materials, and steel and wood fabrication. Laboratory. Extra fee required.

**ART 445 Ceramics 2 (3)**

*Prerequisite:* ART 245 or equivalent. Priority enrollment given to art majors. Clay and glaze. Form exploration with wheel and handbuilding techniques. May be repeated for a total of 12 units with consent of instructor. Laboratory. Extra fee required.

**ART 450 Art for Children (3)**

*Prerequisite:* upper division standing or consent of instructor. Creative experiments with varied media to explore art in child development. Laboratory. Extra fee required.

**ART 460 Photography 2 (3)**

*Prerequisite:* ART 260 or equivalent beginning black and white chemical process photo course. Priority enrollment given to art majors. Advanced black and white photochemical processes, techniques that utilize contemporary art concepts and approaches. Laboratory. Extra fee required.

**500 level courses:** Advanced work within the area of emphasis. Proficiency is required, and courses may be repeated when so indicated.

**ART 501 Western Art: Special Areas (3)**

*Prerequisites:* upper division standing and courses specified by topic in Class Schedule. Topic to be specified in Class Schedule. May be repeated as topics vary.

**ART 502 Asian Art: Special Areas (3)**

*Prerequisite:* ART 205 or equivalent. Topic to be specified in Class Schedule. May be repeated as topics vary.

**ART 504 The Art and Architecture of Islam (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Case study examination of the tradition and practices of Islamic art and architecture, artistic developments from the 7th century to the present, and regional variations in Africa, Asia, and Europe.

**ART 506 American Painting and Sculpture: 1940 to Present (3)**

*Prerequisite:* ART 202 or equivalent and consent of instructor. Priority enrollment given to art majors. Developments in American painting and sculpture from WWII to present.

**ART 507 Art of China (3)**

*Prerequisite:* ART 205 or equivalent. Historical development of painting, sculpture, and other arts in China from earliest times to the 19th century within the larger context of Chinese culture. (Cross listed with HUM 507. May not be repeated under alternate prefix.)

**ART 509 Art Productions: Art History (1)**

*Prerequisite:* upper division standing; art majors and minors only. Research, design, and development of visual material for instructional purposes. Concurrent enrollment permitted in two different sections of Art Production Series. A total of 3 units from this series may be taken for credit. Laboratory.

**ART 511 Conceptual and Information Arts: Special Areas (1-3)**

*Prerequisite:* upper division standing or consent of instructor. Topic to be specified in Class Schedule. Priority enrollment given to art majors. May be repeated 3 times per topic for a total of 21 units. Extra fee required. Laboratory.

**ART 522 Weaving 2 - Intermediate (3)**

*Prerequisite:* ART 422 or equivalent. Expands on the technical and creative skills acquired in Weaving I. Intermediate hand weaving and textile concepts using eight-harness floor looms. Exploration of multi-harness weave structures from sampling towards individual art projects. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 523 Textiles: Special Areas (3)**

*Prerequisite:* ART 422 or 424 or equivalent. Topic to be specified in Class Schedule. May be repeated for a total of 12 units as topics vary. Laboratory. Extra fee required.

**ART 524 Surface Design 3 (3)**

*Prerequisite:* ART 424 or equivalent. Experimental surface design applied to the study of costume. May be repeated for a total of 6 units. Activity. Extra fee required.

**ART 531 Painting 2 (3)**

*Prerequisite:* ART 431. Priority enrollment given to art majors. Special problems in painting. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 533 Figure Painting (3)**

*Prerequisites:* ART 431 and 433 or equivalent. Priority enrollment given to art majors. Problems in painting the human figure. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 534 Mixed Media Painting (3)**

*Prerequisites:* ART 231 and 431 or equivalents. Priority enrollment given to art majors. Formal, conceptual, and structural aspects of painting using traditional and non-traditional mediums, including mechanical and digital reproduction. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 536 Printmaking: Special Areas (3)**

*Prerequisites:* three units of printmaking from ART 435, 436, 437, 438 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary. Laboratory. Extra fee required.

**ART 539 Art Productions: Drawing, Painting and Printmaking (1)**

*Prerequisite:* upper division standing; art majors and minors only. Course Description: Research, design, and development of visual material for instructional purposes. Concurrent enrollment permitted in two different sections of the Art Production Series. A total of 4 units from this Series may be taken for credit. Laboratory.

**ART 540 Sculpture 3 (3)**

*Prerequisite:* ART 440. Priority enrollment given to Art majors. Development of sculptural expertise and personal creative growth. May be repeated for a total of 9 units. Laboratory. Extra fee required.

**ART 541 Sculpture: Special Areas (3)**

*Prerequisite:* ART 540 or equivalent. Topic to be specified in Class Schedule. Priority enrollment given to art majors. May be repeated for a total of 12 units as topics vary. Laboratory. Extra fee required.

**ART 544 Raku (3)**

*Prerequisite:* ART 545 or consent of instructor. Priority enrollment given to art majors. Methods of obtaining basic glazes, advanced slip decoration and design, building and understanding of varied oriental raku kilns, and reduction and oxidation firing. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 545 Ceramics 3 (3)**

*Prerequisite:* ART 445 with a grade of C or better. Priority enrollment given to art majors. Problems in ceramics. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 546 Ceramics: Special Areas (3)**

*Prerequisite:* ART 545 or equivalent. Topic to be specified in Class Schedule. May be repeated for a total of 12 units as topics vary. Laboratory. Extra fee required.

**ART 547 Glass: Special Areas (3)**

*Prerequisite:* ART 247 or departmental permission. Topic to be specified in Class Schedule. Priority enrollment given to art majors. May be repeated for a total of 12 units as topics vary. Laboratory. Extra fee required.

**ART 550 Field Experience in Art Education (3)**

*Prerequisite:* ART 450 or equivalent. Seminar and supervised art education internships in a variety of Bay Area sites: schools, museums, cultural centers, social institutions, art and educational organizations. May be repeated for a maximum of 6 units.

**ART 551 GW Resources and Strategies for Art and Learning - GVAR (3)**

*Prerequisites:* studio art major; junior/senior standing; ENG 214 with grade of C- or better. Exercises in research, creative studio inquiry, writing about ideas, issues and resources in art education. Fulfills the junior level writing requirement for the studio art concentration. ABC/NC grading only.

**ART 560 Photography 3 (3)**

*Prerequisites:* ART 260 and ART 460 or equivalent. Priority enrollment given to art majors. Introduction to imaging processes using Adobe Photoshop. This is a bridge course where analog media is translated to digital information for printing. Assignments combine technical exercises with conceptual themes in contemporary photography. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 562 Color Photography I (3)**

*Prerequisite:* ART 560 and/or ART 563 Ways of Seeing. Priority enrollment given to art majors. Advanced digital color photography and image processing and printing. Digital camera with Camera Raw file capability required. May be repeated for a total of 6 units. Laboratory.

**ART 563 Photography: Special Areas (3)**

*Prerequisite:* ART 560 or equivalent and consent of instructor. Topic to be specified in Class Schedule. Priority enrollment given to art majors. May be repeated as topics vary. Laboratory. Extra fee required.

**600 level courses:** Senior seminars, "honors" courses, and further advanced work within the area of emphasis.

**ART 602 GW Art History Methods - GVAR (3)**

*Prerequisites:* ENG 214 or equivalent with a grade of C or better; junior or senior art major with art history emphasis. Advanced seminar in art history research methods. Course paper fulfills senior project for majors with art history emphasis. (ABC/NC grading only.)

**ART 610 Conceptual Strategies III (3)**

*Prerequisites:* ART 410, 412, six units of 511, and consent of instructor. Production and research projects. May be repeated for a total of 9 units. Laboratory.

**ART 612 Computer Applications in Conceptual Design III (3)**

*Prerequisites:* ART 410, 412, and three units of 511, and consent of instructor. Conceptual design computer applications workshop. May be repeated for a total of 9 units. Extra fee required.

**ART 619 Exhibition Design (3)**

*Prerequisites:* junior or senior standing and art major. Theory and production of exhibitions, including planning, collecting, preparation, annotation, and criticism. May be repeated for a total of 6 units.

**ART 624 Sculptural Cloth and Fiber (3)**

*Prerequisite:* ART 222 or consent of instructor. Exploration of object making, as well as ideas in installation, through the learning of ways to shape cloth and fiber into forms and structures using a variety of textile related techniques and approaches.

**ART 631 Painting 3 (3)**

*Prerequisites:* ART 431, 531, and painting area recommendation and permission. Priority enrollment given to art majors. Painting workshop. May be repeated for a total of 9 units. Laboratory. Extra fee required.

**ART 635 Advanced Printmaking (3)**

*Prerequisite:* departmental recommendation and permission. Advanced printmaking projects emphasizing aesthetic and technological developments. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**ART 640 Sculpture 4 (3)**

*Prerequisite:* ART 540 and departmental recommendation and permission. Priority enrollment given to art majors. Sculpture workshop. May be repeated for a total of 9 units. Laboratory. Extra fee required.

**ART 645 Ceramics 4 (3)**

*Prerequisite:* departmental recommendation and permission. Priority enrollment given to art majors. Ceramics workshop. May be repeated for a total of 9 units. Laboratory. Extra fee required.

**ART 650 Curriculum and Instruction in Art (3)**

*Prerequisite:* upper division standing or consent of instructor. Principles and practices of curriculum planning and instruction in the visual arts. Objectives, issues, problems; and teaching techniques. Extra fee required.

**ART 651 Service Learning in Art Education (1)**

*Prerequisite:* ART 231 or 240 or equivalent. Preparatory course in art education for residency in El Salvador. Includes readings in art education theory, discussions and lectures pertaining to Salvadoran culture and history, planning and preparation for working with a community in El Salvador. May be repeated for a total of 2 units.

**ART 655 Curriculum and Instruction II (3)**

*Prerequisite:* ART 650. Must be taken concurrently with student teaching. Continuation of ART 650. Provides a forum for examining issues and ideas related to contemporary classroom practice in the teaching of visual art.

**ART 660 Photography 4 (3)**

*Prerequisite:* ART 560 or equivalent. Priority enrollment given to art majors. Photography workshop. May be repeated for a total of 9 units. Laboratory. Extra fee required.

**ART 662 Color Photography II (3)**

*Prerequisites:* ART 562 or ART 563 (Ways of Seeing). Priority enrollment given to art majors. Advanced digital color printing and image processing. Digital camera with Camera Raw file capability required. Laboratory. Extra fee required. May be repeated for a total of 6 units.

**ART 685 Projects in the Teaching of the Visual Arts (1-3)**

*Prerequisites:* consent of instructor and completion of equivalent course in the subject matter. Teaching experiences in art, art education, and art history through assigned instructional projects as classroom aides. Training in teaching principles including supervised classroom teaching activities. May be repeated for a total of 4 units.

**ART 690 GW Professional Practices: Studio Art - GVAR (3)**

*Prerequisites:* studio art major in junior/senior standing; ENG 214 or equivalent with grade of C- or better. Professional skills within art practice methods, research, writing, and creative work development. Fulfills the junior level writing requirement for the studio art concentration. Laboratory. (ABC/NC grading only.)

**ART 699 Special Study (1-3)**

*Prerequisites:* upper division standing, consent of instructor, and approval of the student's adviser and dean of the college. Independent study, under supervision of a staff member selected by the student, of some aspect of the field not covered by regular courses. May be repeated for credit with consent of instructor, the adviser, and the department chair. No more than 3 units can be taken during any one semester.

**Graduate Courses**

**700 level courses:** Designed for the classified graduate student to provide an arena for very advanced work in a specialized area of art.

**ART 700 Seminar in Art Theory and Criticism (3)**

*Prerequisites:* classified graduate status in art. Art theory, aesthetics, and contemporary issues of art and art criticism as they apply to the creative artist. Should be completed in the first semester of enrollment of classified graduate studies.

**ART 701 Art History: Images and Meaning (3)**

*Prerequisites:* ART 602, ART 700, classified graduate status and/or consent of instructor. Advanced research seminar in art history. Historical area studies, iconography, and textual analyses. May be repeated for a total of 6 units with consent of the instructor.

**ART 702 Graduate Art History Methods (3)**

*Prerequisites:* classified graduate status. Graduate seminar in art history research methods. May be repeated for a total of 6 units.

**ART 703 Art History Research Applications (3)**

*Prerequisites:* ART 700 or ART 701 or consent of instructor. Develop professional skills in problem formulation, visual and textual analysis, and art historical argument.

**ART 704 Seminar in Art (3)**

*Prerequisites:* classified status in art, consent of instructor and graduate major adviser. Intensive critical investigation of selected aspects of the visual arts. May be repeated for a total of 18 units.

**ART 705 Contemporary Art (3)**

*Prerequisites:* ART 700 and not less than 6 units of art history including ART 203 or ART 506 or equivalents taken within the last 5 years. Focus on the research of both the visual theories and the accomplishments of the post-WW II period and the changing attitudes and styles that form contemporary traditions.

**ART 719 Exhibition Design (3)**

Theory and production of exhibitions, including planning, collecting, preparation, annotation, and criticism.

**ART 750 Seminar in Teaching Art Practice (3)**

*Prerequisites:* classified M.F.A. graduate status or consent of instructor. Development of teaching and related career preparation skills, philosophies and curriculum planning in art practice fields. Strongly recommended for teaching assistants in ART 850. May be taken by advanced undergraduates preparing for college level teaching careers in art.

**ART 780 Graduate Visiting Artist/Scholar Studio (3)**

*Prerequisite:* classified graduate status in art; consent of instructor. Integration of interdisciplinary studio with contemporary art issues. Students work with guest artists, critics, or scholars. May be repeated for a total of 6 units. Classwork, 1 unit; activity, 2 units.

**800 level courses:** Terminal experiences comprising the main body of work for the Master of Arts.

**ART 850 Directed Experience in Public Roles for Artists (3)**

*Prerequisites:* classified graduate status in art; consent of supervising instructor and graduate major adviser. Supervised directed experiences and seminar in the teaching of art and/or internship in other public roles that artists occupy, etc. May be repeated for a total of 6 units.

**ART 852 Directed Experience in Art Education (3)**

*Prerequisites:* classified graduate status; consent of the supervising instructor and the graduate major adviser. Experiences in the teaching of art under the supervision of an instructor.

**ART 853 Directed Experience in Museum Education (3)**

*Prerequisites:* ART 700, 705, or 602 and consent of the graduate major adviser. Intern experience in museums, community centers, and art programs under the supervision of an Art Department instructor. May be repeated for a total of 6 units.

**ART 882 Tutorial in Studio (3)**

*Prerequisites:* classified graduate status in art and consent of instructor and graduate major adviser. Critical direction on a one-to-one basis. Intended to develop a student's individual vision and capabilities as a professional artist. May be repeated for a total of 6 units.

**ART 890 Creative Work Research (3)**

*Prerequisites:* ART 700, 704, 705, and consent of major adviser. Development of creative research in the art area with direct application to the creative work project. Must be taken in the semester before acceptance in ART 894.

**ART 894 Creative Work Project (3)**

*Prerequisites:* ART 890 and advancement to candidacy for the Master of Fine Arts. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before enrollment. May be repeated with consent of the department chair if taken previously for an M.A. at SFSU.

**ART 897 Research Projects in Art (3)**

*Prerequisites:* ART 700, 704, 705, and consent of graduate major adviser. Development of a problem of major interest to a student with direct application of methods of research, research findings, and production to creative activity in the art area.

**ART 898 Master's Thesis (3)**

*Prerequisites:* ART 700, ART 701, ART 702, ART 703, and advancement to candidacy. One-semester paper demonstrating art historical theory, methods, research. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by Graduate Studies before registration. CR/NC grading only.

**ART 899 Special Study (1-3)**

*Prerequisites:* classified graduate status and consent of instructor. Independent study, under supervision, of some aspect of the field related to the student's final thesis or project. May be repeated for a total of 6 units with consent of instructor. CR/NC grading only

**ASIAN AMERICAN STUDIES***Undergraduate Courses***AA S 171 Speak Vietnamese I (3) [GE]**

Development of basic skills in spoken Vietnamese with a focus on the practical application of the spoken language in the Vietnamese American community. For non-native speakers.

**AA S 200 History of Asian Americans (3) [USH]**

The history of Asian Americans in the U.S. Comparative analysis of the experience of different Asian American groups and their place in the general history and development of American society. (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**AA S 205 Asian Americans and American Ideals and Institutions (3) [USG,CSLG]**

The Asian American experience in the U.S. with specific attention to basic governmental ideals and institutions. Impact of Asians on legal-constitutional America and the countervailing impact of political-legal structures imposed on Asians. (Fulfills the U.S. Government and California State and Local Government components of the U.S. History and Government Requirement)

**AA S 206 Introduction to Asian American Literature (3) [GE]**

Reading and analysis of Asian American literature. Appreciation of literature from a literary standpoint with attention paid to historical, psychological, and sociological enhancement.

**AA S 214 Second Year Written Composition: Asian American Studies (3) [GE]**

*Prerequisite:* grade of CR or C- or better in ENG 114 or equivalent. Reading and writing with speech as a supportive language skill. Must be taken after student has completed 24 units and before completing 60 units. ABC/NC grading, CR/NC allowed.

**AA S 300 Asian Americans in California (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Not open to students who have taken AA S 200. Asian American participation in the building of California from the 1840s, to anti-Asian movements since the 1870s, to contemporary California public policies in the 1990s.

**AA S 304 Asian American Community Arts Workshop (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Interdisciplinary collaboration in a variety of Asian American creative art forms through community-based workshops. Classwork, 2 units; activity, 1 unit. May be repeated once.

**AA S 308 Photographic Exploration of Asian America (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Photography as a personal tool for the exploration, recording, understanding, and expression of Asian American life. Classwork, 2 units; laboratory, 1 unit. May be repeated once.

**AA S 310 Chinese in America (3) [GE]**

*Prerequisite:* upper division standing. The Chinese American experience in critical historical perspective--from the beginning of immigration in the 1850s to the present.

**AA S 315 Chinese American Personality (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Historical, institutional, and cultural sources of Chinese American identity and sensibility. Mental health issues related to self-perception, stereotypes, family problems, institutional racism, and the development of autonomy. [CSL may be available; consult index for page reference.]

**AA S 322 Chinese American Culture-Language and Literature (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cultural identity of the Chinese American as it is expressed in the language and literature; Chinese community and its influence on the creative process in literature.

**AA S 331 Japanese Americans in the United States (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Historical experience of the Japanese in America; development of Japanese American communities in the context of the development of the western U.S.

**AA S 335 Japanese American Personality (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Japanese American character, identity, self-image, and behavioral manifestations of the interaction of American and Japanese cultural values.

**AA S 340 South Asians in America (3)**

*Prerequisite:* Upper division standing or consent of instructor. Examines the history of South Asian migration to US, and how South Asian Americans negotiate cultural identity and politics. Topics include racialization, popular culture, citizenship and ongoing ties to the homeland.

**AA S 355 Psyche and Behavior of Pilipinos (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Psychological and behavioral development of Pilipinos. The relationship between "traditional" values and problems of ethno-cultural identity, marginality in the American environment.

**AA S 363 Survey of Philippine Literature (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Representative literature in oral and written form: vernacular, Spanish, and English. Readings and analyses of literature in English; America as locale or concepts of America as a force.

**AA S 370 Vietnamese in America (3) [GE]**

*Prerequisite:* upper division standing. Origins and causes of Vietnamese movements to the U.S. and nature of Vietnamese experience in America in terms of political, cultural, and economic factors.

**AA S 372 Vietnamese American Literature (3) [GE]**

*Prerequisite:* upper division standing. A critical survey of Vietnamese American literature with reference to Vietnamese literature: from Vietnamese tradition to Asian American sensibilities.

**AA S 375 Vietnamese American Identity (3) [GE]**

*Prerequisite:* consent of instructor. Vietnamese American experience since 1975 with regards to its psychological adaptation, educational adjustment, socio-economic integration, and cultural/ethnic maintenance.

**AA S 380 Koreans in America (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Korean Americans in the U.S., examining the historical experience and the sociological, political, and economic implications of being a minority and immigrant in the U.S.

**AA S 390 Southeast Asian Americans and Their Experiences (3)**

Comparatively explore "Southeast Asian America" by examining the histories and experiences of Burmese, Cambodian, Filipino, Hmong, Indonesian, Lao, Mien, Mong, Vietnamese, and Thai Americans.

**AA S 393 Cambodian American Experience (3)**

*Prerequisite:* upper division standing or consent of instructor. Examine push-pull factors that led people to flee Cambodia; focus on constraints and strategies (institutional, artistic, community, cultural) deployed by Cambodian Americans to negotiate their status in the US: politically, culturally, economically, and socially.

**AA S 444 Japanese American Art and Expression (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Japanese American artistic expression. Development and evolution of Japanese American art; historical, social, and cultural factors influencing the artistic expression of the Japanese in America.

**AA S 456 Pilipinos in America: Problems of Transition (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Immigration of the Pilipinos to the U.S.; various coping mechanisms used in response to adjustment problems; changing structure of the community.

**AA S 502 Asian American Children's/Teen Literature (3) [GE]**

*Prerequisite:* upper division standing. Literary works by Asian American writers for the young, from preschool through secondary school; how Asian Americans are depicted in American literature written for the young and the impact on the youth. [CSL may be available; consult index for page reference.]

**AA S 550 Asian Americans of Mixed Heritages (3) [GE]**

*Prerequisite:* upper division standing. Issues concerning Asian Americans of mixed ethnic background and heritages, with focus on the groups' interracial profile in relation to their ethnic and cultural sensibilities.

**AA S 575 Asian American Community Health Issues (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Examination of community health concepts and needs specific to the Asian Pacific American Communities, to provide students with knowledge and practical skills in community health issues and service through service learning. May be repeated for a total of six units.

**AA S 603 Asian American Women (3) [GE]**

*Prerequisite:* upper division standing. The social, political, and economic situation of Asian American women. The situation within the family, their communities and larger society.

**AA S 622 Asian American Women's Literature and the Arts (3) [GE]**

*Prerequisite:* upper division standing. Works by Asian American women writers and artists; how Asian American women are depicted in American literature and the arts.

**AA S 629 Selected Topics in Chinese American Studies (2-5)**

*Topic to be specified in the Class Schedule.* May be repeated as topics vary.

**AA S 657 South Asian Diaspora (3)**

*Prerequisite:* Upper division standing. Cross listed with ETHS 657. For course description, see ETHS 657. (May not be repeated under alternate prefix.)

**AA S 680 Community: Changes and Development (3) [GE]**

*Prerequisite:* 6 units of upper division course work in AA S or consent of instructor. Asian American communities: origins, changes, economics, trends of residential and community patterns. Implications, effects of new immigration and population growth. [CSL may be available; consult index for page reference.]

**AA S 685 Projects in the Teaching of Asian American Studies (1-4)**

*Prerequisite:* upper division standing and consent of instructor. Academic service learning practicum/internship experience as an undergraduate instructional aide. Participation in the teaching of a regular instructionally-related class. Limited to undergraduate students only. May be repeated for a total of 4 units.

**AA S 688 Community Service Internship (3)**

*Prerequisite:* upper division standing or consent of instructor. Supervised fieldwork/service in an approved Asian American community organization or agency. Attendance at seminar required. May be repeated for a total of 6 units. CR/NC grading only.

**AA S 693 Asian Americans and the Mass Media (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Images and treatment of Asian Americans in mass media, especially motion pictures, television, advertising, popular literature, and commercial art. American minorities in the entertainment industry.

**AA S 697 Proseminar in Asian American Studies (3)**

*Prerequisite:* AA S major; with 24 upper division units in Asian American Studies. Practical application of research methodology in Asian American Studies through critical examination, analysis, and peer critique to develop a publishable product. [CSL may be available; consult index for page reference.]

**AA S 699 Special Study (1-3)**

*Prerequisites:* consent of instructor and department chair. Supervised individual study of a particular problem in Asian American Studies. Enrollment by petition (form available in Asian American Studies Office). AAS 699 is repeatable for a maximum of 6 units.

**Graduate Courses****AA S 710 Critical Approaches to Asian American Studies (3)**

*Prerequisite:* consent of instructor. Critical understanding of theory and research methodologies in Asian American Studies; available resources as preparation for graduate-level research. Guidance in literature review and bibliography in the student's chosen area.

**AA S 800 Theory and History in Asian American Studies (3)**

*Prerequisite:* graduate standing in AAS or consent of instructor. Integration of historical review with contemporary theory relating to Asian Americans.

**AA S 810 Seminar: Asian American Immigration (3)**

*Prerequisite:* consent of instructor. Theoretical and methodological understanding of Asian immigration to the U.S. Asian Americans within structures of American immigration history.

**AA S 822 Seminar: Asian American Literature and Arts (3)**

*Prerequisite:* consent of instructor. Intersections of history, gender, culture, and creativity as they pertain to the conception of an Asian American literary aesthetic; Asian American literature within the genre of U.S. literature.

**AA S 833 Seminar: Asian American Family and Identity (3)**

*Prerequisite:* consent of instructor. Issues concerning Asian Americans in family and group structures.

**AA S 865 Asian American Community and Public Policy (3)**

*Prerequisite:* consent of instructor. Assessment and critique of policy issues, their impact on, and the responses from, the Asian American community. Relationship and complexities of local, state, and federal policies facing the contemporary Asian American community.

**AA S 875 Asian American Community Health Issues (3)**

*Prerequisite:* consent of instructor. Major health issues, their impact on and the responses from the Asian American community. Health perspectives and practices affected by the cultural dichotomy between Asia and Euro-America.

**AA S 880 Selected Topics in Asian American Studies (1-3)**

*Prerequisite:* graduate standing or consent of instructor. Seminar in selected topics in Asian American Studies. May be repeated as topics vary.

**AA S 884 Critical Asian American Educational Experience and Pedagogy (3)**

*Prerequisite:* graduate standing or consent of instructor. Historical narratives and counter narratives of Asian Americans and education; the development of Asian American Studies; pedagogical issues and interventions that have shaped Asian American identities and communities. Plus-minus AB/NC.

**AA S 895 Field Study in Asian American Studies (3)**

*Prerequisite:* consent of instructor and graduate adviser and advancement to candidacy. An alternate culminating study in fulfillment of the requirement for the master's degree; student develops a project under advisement and direction of graduate adviser. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**AA S 896 Directed Reading in Asian American Studies (3)**

*Prerequisites:* consent of instructor and graduate adviser. Directed reading in one specific area of Asian American studies based upon a standing bibliography or reading list, in consultation and under supervision of a specialist in that field. May be repeated for a total of 6 units.

**AA S 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy and approval of thesis adviser. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**AA S 899 Special Study (3)**

*Prerequisites:* consent of instructor and graduate adviser. Plan, develop, and complete a project under the direction of a supervising faculty member who is a specialist in that field.

**ASTRONOMY***Undergraduate Courses***ASTR 115 Introduction to Astronomy (3) [GE]**

Designed for non-science majors (majors should take ASTR 320). Stonehenge; solar system; sun, stars and stellar evolution, pulsars; black holes; nebulae; galaxies, quasars, big bang, and expanding universe; search for extraterrestrial life. Opportunity for telescopic observation.

**ASTR 116 Astronomy Laboratory (1) [GE]**

*Prerequisite:* concurrent registration in or completion of ASTR 115. Fundamentals of astronomical observation, including optics and spectroscopy. Planetarium exploration of stars, Sun and moon. Opportunity for telescopic observation.

**ASTR 120 Introduction to Astrobiology: Life in the Universe (3)**

*Prerequisite:* Completion of ELM requirement. A scientifically quantitative and rigorous examination of topics and processes in astronomy, geology, and biology that bear on the possible formation and evolution of life on other planets. Motivated by the discovery of exoplanets and life in extreme environments

**ASTR 300 Stars, Planets, and the Milky Way (3)**

*Prerequisite:* PHYS 220 or PHYS 111 with grade of C- or better. Quantitative study of stars, stellar evolution, and the Milky Way; emphasis on the observational basis of our knowledge of the Galaxy's structure and contents. Application of Newton's laws to exoplanets, determination of stellar masses, and evidence for dark matter.

**ASTR 301 Observational Astronomy Laboratory (2)**

*Prerequisite:* ASTR 115 or ASTR 300 with grade of C or better; MATH 109 or equivalent. Principles and practice of astronomical observation including telescope design and operation, and coordinate and magnitude systems. Observations of the night sky, planets, stars, and nebulae using determination of stellar masses, and evidence for dark matter. Classwork, 1 unit; laboratory, 1 unit.

**ASTR 340 GW The Big Bang - GVAR (3)**

*Prerequisites:* ENG 214 (or equivalent) with grade of C or better; PHYS 320 (or equivalent) with grade of C- or better. Introduction to cosmology, from earlier human conceptions of the universe, through the hot big bang and inflation; early universe, nucleosynthesis, dark matter, dark energy, photon and neutrino backgrounds, and observational tests of cosmology. (Cross listed with PHYS 340. May not be repeated under alternate prefix.) ABC/NC grading only.

**ASTR 400 Stellar Astrophysics (3)**

*Prerequisites:* CSC 309, MATH 245 or 376, and PHYS 320, all with grades of C- or better. Introduction to stellar astrophysics: the birth, life and death of stars; stellar atmospheres and spectra; stellar interiors; energy generation and transport; star formation; stellar evolution and death; the Solar Cycle and the Sun-Earth connection. Paired with ASTR 700. Students who have completed ASTR 700 may not take ASTR 400 for credit.

**ASTR 442 Galaxies and Cosmology (3)**

*Prerequisites:* PHYS 320, ASTR 300, MATH 245 or 376, ASTR 400 recommended, all with grades of C- or better. Introduction to extragalactic astronomy, focusing on galaxies beyond the Milky Way, theories of galaxy formation, and the large-scale structure and evolution of the universe. Overview of modern astrophysical observations and the interplay between theory and observation. Paired with ASTR 742. Students who have completed ASTR 742 may not take ASTR 442 for credit. (Formerly 410.)

**ASTR 470 Observational Techniques in Astronomy (3)**

*Prerequisites:* ASTR 300; ASTR 301 recommended; CSC 309 strongly recommended; all with grades of C- or better. Astronomical instrumentation and data analysis; statistical analysis, CCD photometry, spectroscopy, image processing, instrument design. Paired with ASTR 770. Students who have completed ASTR 770 may not take ASTR 470 for credit. Classwork, 2 unit; laboratory, 1 unit.

**ASTR 498 Astronomy Research Literature (2)**

*Prerequisites:* ASTR 320, PHYS 320 or consent of instructor, with grades of C- or better. Critical reading and analysis of current literature in astronomy and astrophysics. Culminating experience for undergraduates. Paired with ASTR 798. Students who have completed ASTR 798 may not take ASTR 498 for credit.

**ASTR 685 Projects in the Teaching of Astronomy (1)**

*Prerequisite:* Grade of B or better in the ASTR 321 or ASTR 470 and consent of instructor. Methods for effective student teaching in the SFSU Observatory and/or Planetarium. Leading of Observatory Open Nights; development and/or presentation of Planetarium shows. May be repeated for a total of 3 units.

**ASTR 697 Senior Project (1-3)**

*Prerequisites:* ASTR 470 with grade of C- or better; senior standing. Culminating experience in the B.S. in Physics: Concentration in Astrophysics. Observational or theoretical projects under the direction of department faculty. Student must submit a written report of work accomplished. May be repeated for a total of three units.

**ASTR 699 Special Study (1-3)**

*Prerequisites:* approval of the department and of the instructor concerned. For advanced students majoring or minoring in astronomy or astrophysics. Special study in the laboratory, field, or library under the direction of a member of the astronomy faculty. The student must present a written report of the work accomplished to the faculty and to the department. May be repeated for a maximum of 12 units.

*Graduate Courses***ASTR 700 Stellar Astrophysics (3)**

*Prerequisites:* CSC 309, MATH 245 or 376, PHYS 320, all with grades of C- or better. Paired with ASTR 400. For course description, see ASTR 400. Students who have completed ASTR 400 may not take ASTR 700 for credit.

**ASTR 742 Galaxies and Cosmology (3)**

*Prerequisites:* PHYS 320, ASTR 300, MATH 245 or 376, ASTR 400 recommended, all with grades of C- or better. Paired with ASTR 442. For course description, see ASTR 442. Students who have completed ASTR 442 may not take ASTR 742 for credit.

**ASTR 770 Observational Techniques in Astronomy (3)**

*Prerequisites:* ASTR 300; ASTR 301 recommended; CSC 309 strongly recommended; all with grades of C- or better. For course description, see ASTR 470. Paired with ASTR 470. Students who have completed ASTR 470 may not take ASTR 770 for credit. Classwork, 2 unit; laboratory, 1 unit.

**ASTR 798 Astronomy Research Literature (2)**

*Prerequisites:* ASTR 320, PHYS 320 or consent of instructor, with grades of C- or better. Paired with ASTR 498. For course description, see ASTR 498. Students who have completed ASTR 498 may not take ASTR 798 for credit.

**ATHLETICS***Undergraduate Courses***ATHL 240 Off Season Conditioning (2)**

Conditioning for men's and women's basketball, men's baseball, men's and women's cross-country, men's and women's soccer, women's softball, men's and women's swimming, women's tennis, women's indoor track and field, men's and women's track and field, women's volleyball, men's wrestling. No more than 6 units of off season conditioning credit is allowed toward graduation requirements.

## Intercollegiate Athletic Series for Men and Women (2 each)

No more than 6 units of intercollegiate credit is allowed toward graduation requirements.

- 250 Men's Intercollegiate Basketball
- 252 Women's Intercollegiate Basketball
- 254 Women's Intercollegiate Cross-country
- 256 Women's Intercollegiate Soccer
- 258 Women's Intercollegiate Softball
- 268 Women's Intercollegiate Volleyball
- 271 Men's Intercollegiate Baseball
- 275 Men's Intercollegiate Cross-country
- 278 Men's Intercollegiate Soccer
- 283 Men's Intercollegiate Wrestling
- 292 Women's Intercollegiate Track and Field

## BEHAVIORAL AND SOCIAL SCIENCES

### Undergraduate Courses

#### BSS 275 Public Lecture Series in the Behavioral and Social Sciences (2)

Public lecture series on current issues within the behavioral and social sciences. Course is designed for the general community and student body. May be repeated as topics vary. CR/NC grading only.

#### BSS 300 Foundations in Middle East and Islamic Studies (3)

*Prerequisite:* upper division standing or consent of instructor. Cross listed with MEIS 300. For course description, see MEIS 300. (May not be repeated under an alternate prefix.)

#### BSS 600 Washington, D.C. Internship (9)

*Prerequisite:* upper division standing or consent of instructor. Concurrent enrollment in a course in the major area of study. Offers extensive exposure to selective aspects of the federal decision-making process. The Washington Center offers 35 hrs./week placement with weekly seminars and assemblies.

## BIOLOGY

### Undergraduate Courses

#### BIOL 100 Human Biology (3) [GE]

Not intended for biology majors. Principles of human biology. Body structure and function, reproduction, development, heredity, and evolution. Aspects of modern biology impacting the human species.

#### BIOL 101 Human Biology Laboratory (1) [GE]

*Prerequisite:* BIOL 100 or BIOL 175 (may be taken concurrently). Laboratory exercises demonstrating scientific processes, including the scientific method, analysis of data, and drawing appropriate conclusions. Extra fee required.

#### BIOL 150 The World of Plants (3) [GE]

Intended for non-biology majors. World of plants, their place in nature, and the relation to humans. Growing plants, field observations, and studies of the economic uses of plants. Classwork, 2 units; laboratory and field work, 1 unit. Extra fee required.

#### BIOL 160 Marine Biology (3) [GE]

Introduction to the marine environment including oceanic, intertidal, and near shore communities of plants, animals, and microbes. Emphasis is on marine biological and chemical processes and environmental issues both locally and globally.

#### BIOL 170 Animal Diversity (3) [GE]

*Intended for non-biology majors.* Describes the diversity of animal life and provides an overview of basic concepts of evolution, the fossil record, physiology, behavior, ecology, geographical distribution, and issues in the conservation of biodiversity.

#### BIOL 171 Animal Diversity Laboratory (1) [GE]

*Prerequisite:* BIOL 170 (may be taken concurrently). Examination of photographic specimens of animal species, their habitats, and their anatomy. Computer exercises to illustrate evolutionary, ecological, and physiological principles. Extra fee required.

#### BIOL 176 Science and Politics of Stem Cell Biology (3) [GE]

*Prerequisite:* Not open to biology majors. Foundation for understanding concepts in stem cell biology, social and political issues in stem cell research and regenerative medicine.

#### BIOL 210 General Microbiology and Public Health (3) [GE]

Intended for non-biology majors. Basic concepts of microbiology; practical applications to medicine, public health, and the environment.

#### BIOL 211 General Microbiology and Public Health Laboratory (1) [GE]

*Prerequisite:* BIOL 210 or concurrent enrollment. Intended for non-biology majors. Laboratory techniques in isolation, enumeration, and identification of microorganisms. Extra fee required.

#### BIOL 230 Introductory Biology I (5) [GE]

*Prerequisite:* score of 550 or above on Entry Level Mathematics (ELM) examination or approved exemption, or C- or better in MATH 70. Passing score on math and writing skills diagnostic test administered the first day of class. *Recommended:* CHEM 115; and qualified for ENG 114 or ENG 209. Intended for biology majors. Fundamentals of biology: chemical basis of life, cell structure, bioenergetics, plant and animal physiology, and genetics. Classwork, 3 units; laboratory, 2 units. Extra fee required. [CSL may be available; consult index for page reference.]

#### BIOL 240 Introductory Biology II (5)

*Prerequisite:* grade of C or better in BIOL 230. Fundamentals of biology: gene expression, development, evolution, ecology, and the diversity of microbes, plants, and animals. Classwork, 3 units; laboratory, 2 units. Extra fee required.

#### BIOL 300 Nature Study (3) [GE]

*Prerequisite:* one course in college biology. Intended for non-biology majors. Identification, structure, adaptation, life history, habits, habitat, economic status, conservation of common plants and animals. Two all-day field trips scheduled on two separate weekends. Classwork, 2 units; laboratory and field work, 1 unit. Extra fee required.

#### BIOL 310 Biology for Today's World (3) [GE]

*Prerequisite:* college course in biology. Fundamental concepts and processes in genetics, cell biology, evolution, ecology, and biodiversity. Scientific inquiry. Application of concepts to current issues in science and society.

#### BIOL 313 Principles of Ecology (3) [GE]

*Prerequisite:* one course in college biology or an environmentally-oriented subject. Intended for non-majors. Ecological principles and methods. Introduction to population, community, and ecosystem ecology. Trips to various habitats. Classwork, 2 units; laboratory and fieldwork, 1 unit. Extra fee required.

#### BIOL 317 Ecology of California (3) [GE]

*Prerequisite:* college course in biology. Examines ecology, natural history of California, and impact humans have on the environment in a perceptual and scientific content. Focus on principal processes underlying the evolution/diversity of California's terrestrial/aquatic flora/fauna.

#### BIOL 318 Our Endangered Planet (3) [GE]

*Prerequisite:* one course in college biology. Intended for non-majors. The effect of humans on the ecology of our environment. Species extinctions, the role of genetics, nature reserves, biology of small populations, and restoration ecology. [CSL may be available; consult index for page reference.]

#### BIOL 322 Human Sexuality: Integrative Science (3) [GE]

*Prerequisite:* BIOL 100 or equivalent or consent of instructor. Presents basic scientific foundations of human sexuality. Explores the symbiotic relationships between biology and society throughout the life cycle. Discusses the challenges associated with human sexuality and the tools for dealing with them.

#### BIOL 326 Disease! (3) [GE]

*Prerequisite:* BIOL 100 or equivalent or consent of instructor. Intended for non-majors. Origin and natural history of selected infectious and non-infectious human diseases including causal agents, mechanisms, and historical impact. Factors involved in the incidence and distribution of disease.

#### BIOL 327 AIDS: Biology of the Modern Epidemic (3) [GE]

*Prerequisite:* one course in college biology. Intended for biology majors and non-majors. Modern epidemic of AIDS is viewed from biological and social perspectives: virology, epidemiology, the immune system, disease states, diagnosis, treatment, prevention, public health issues, sexuality, response of the scientific community, comparison with other historical epidemics.

#### BIOL 328 Human Anatomy (4)

*Prerequisite:* sophomore, upper division, or graduate level major in biology, anthropology, biochemistry, chemistry, clinical science, dietetics, kinesiology, or pre-nursing; BIOL 100 & 101, or BIOL 230, with grades of C- or better in each, or consent of instructor. Gross structures of the human body. Classwork, 3 units; laboratory, 1 unit. Extra fee required.

#### BIOL 330 Human Sexuality (3) [GE]

*Prerequisite:* one course in college biology or consent of instructor. Intended for B.A. in General Biology majors and non-majors. Development, structure, function, and dysfunction of reproductive and sexual systems in humans, physiology of sexual response, variations in sexual expression, law, birth control and abortion, sexual health, sexual motivation, love, and sexual values.

#### BIOL 332 Health Disparities in Cancer (3) [GE]

*Prerequisite:* upper division standing. Major determinants of health disparities in cancer including ethnic differences in biology and prevention and treatment of cancer. Strategies to overcome these disparities through research, health education, outreach, advocacy, and policy changes. (formerly cross-listed with HED 330. Not open to students who completed HED 330.)



**BIOL 337 Evolution (3)**

*Prerequisites:* BIOL 230, 240, and BIOL 355. Intended for biology majors and nonmajors. The principles of evolutionary biology, concentrating on basic population genetic mechanisms and methods of analysis.

**BIOL 344 Research Skills (3)**

*Prerequisites:* BIOL 230, BIOL 240, and consent of instructor. Practical skills for successfully conducting undergraduate research. Focus on experimental design, critical review of literature, effective oral and written scientific presentation, and development of research plan. Paired with BIOL 844. Students who have completed BIOL 844 may not take BIOL 344 for credit.

**BIOL 349 Bioethics (3) [GE]**

*Prerequisite:* junior or senior standing. Biomedical ethics: experiments on humans and laboratory animals, genetic engineering, in vitro fertilization, fetal research, abortion, the health care system, organ transplants, death and dying. (Paired with BIOL 849. Students who complete BIOL 349 may not take BIOL 849 for credit.)

**BIOL 350 Cell Biology (3)**

*Prerequisites:* BIOL 230, 240; CHEM 130 with a grade of C- or better. Intended for upper division biology and biochemistry majors. Cell structure and function, extracellular matrix interactions, signal transduction, and regulatory mechanisms in cell growth and differentiation. BIOL 351 Experiments in Cell and Molecular Biology (4)

*Prerequisites:* BIOL 350 and 355. Intended for upper division biology and biochemistry majors. Experiments introducing laboratory techniques: microscopy, cytochemistry, spectrophotometric quantitation of macro-molecules, organelle isolation, animal cell culture, gene expression, protein analysis, recombinant DNA techniques. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**BIOL 355 Genetics (3)**

*Prerequisites:* BIOL 230, 240; CHEM 130 with a grade of C- or better. Intended for upper division biology and biochemistry majors. Viral, prokaryotic, and eukaryotic genetics. Population, human, and molecular genetics.

**BIOL 356 Honors Genetics (2)**

*Prerequisite:* BIOL 355 with a grade of B or better. Intended for biology majors. Advanced topics, new ideas, unsolved problems, reading of original research, and review of articles in genetics: Mendelian, molecular, and population.

**BIOL 357 Molecular Genetics (3)**

*Prerequisite:* grade of C- or better in BIOL 355 or equivalent. Intended for biology majors. Current ideas in molecular biology including the transfer and expression of genetic information, interaction and hybridization of genes, molecular mutagens, and molecular evolution. Ethical questions.

**BIOL 380 Evolutionary Developmental Biology (3)**

*Prerequisites:* BIOL 230 and 240 with grades of C- or better; BIOL 355 and 337 are highly recommended. Intended for biology majors. Examines embryogenesis in a comparative format to understand the diversity and evolution of developmental mechanisms from primitive multicellular organisms to mammals.

**BIOL 382 Developmental Biology (3)**

*Prerequisites:* grade of C- or better in BIOL 350 and 355. Intended for biology and biochemistry majors. Early embryonic development: exploration of the molecular genetic basis for tissue differentiation. Gene regulation, chromatin, sex determination, oncogenesis, aging, and pattern formation. (Paired with BIOL 782. Students who complete BIOL 782 may not take BIOL 382 for credit.)

**BIOL 391 Microscopy and Photomicrography (2)**

*Prerequisite:* one course in college physics or consent of instructor. Intended for upper division biology majors. The use of the microscope with brightfield, darkfield, phase contrast, and fluorescent optics. Principles of photomicrography. Classwork, 1 unit; laboratory, 1 unit. Extra fee required.

**BIOL 395 Topics in Biology (1-3)**

*Prerequisites:* to be designated with individual course topic. Topic to be specified in Class Schedule. For biology majors. May be repeated for a total of 6 units when topics vary.

**BIOL 396 Laboratory Topics in Biology (1-3)**

*Prerequisites:* to be designated with the individual course topic. Topic to be specified in Class Schedule. For biology majors. Laboratory. May be repeated for a total of 6 units when topics vary.

**BIOL 401 General Microbiology (3)**

*Prerequisites:* BIOL 230, 240; CHEM 233 (formerly CHEM 333) with a grade of C- or better. Intended for biology and biochemistry majors. Morphology, physiology, genetics, molecular biology, evolution, and taxonomy of microorganisms; bacteria and viruses; importance of microbes in biotechnology, ecology, and public health.

**BIOL 402 General Microbiology Laboratory (2)**

*Prerequisites:* BIOL 401 or concurrent enrollment. Intended for biology majors. Laboratory techniques in the isolation, cultivation, and identification of microbes, especially bacteria; microbial properties including nutrition, gene transfer, enzyme induction, and viral replication. Extra fee required.

**BIOL 411 Environmental Microbiology (3)**

*Prerequisites:* BIOL 401, 402, and 355; CHEM 340 or 349. Intended for BIOL majors. Study of microbes and microbial communities using molecular and genomic approaches; primary research data includes novel microbial genomes and metagenomes. Plus-minus letter grade only.

**BIOL 420 General Virology (3)**

*Prerequisites:* BIOL 401 and 402 with a grade of C- or better or consent of instructor. Concurrent enrollment in BIOL 421 is recommended. Intended for biology majors. Molecular aspects of virus structure, genetics, reproduction, and infection. Bacterial, animal, and plant viruses.

**BIOL 425 Emerging Diseases (3)**

*Prerequisite:* BIOL 230, 240 and one of (BIOL 355, 401 or 350) and one of (CHEM 130 or 333) Biology of the emerging diseases that threaten humans and wildlife. The molecular biology, genetics, epidemiology, ecology, and economic impact of emerging viruses.

**BIOL 430 Medical Microbiology (3)**

*Prerequisites:* BIOL 401 with minimum grade of C; consent of instructor. Preference to graduating biology seniors and majors requiring this course. Principles of infection, immunity, and characterization of medically important microbial agents. Extra fee required.

**BIOL 430 Medical Microbiology (5)**

*Prerequisites:* BIOL 401 and 402 with minimum grade of C-; consent of instructor. Preference to graduating seniors requiring this course. Intended for biology majors. Principles of infection and immunity of bacterial, mycotic, and viral diseases; isolation and identification of selected groups of medically important microorganisms. Classwork, 3 units; laboratory, 2 units. Extra fee required.

**BIOL 431 Medical Microbiology Laboratory (2)**

*Prerequisites:* BIOL 401 and 402 with grade of C- or better; BIOL 430 (may be concurrent); consent of instructor. Enrollment priority for biology BS majors. Basic principles and current standard diagnostic procedures in medical microbiology. (Class work 1 unit; lab 1 unit.)

**BIOL 435 Immunology (3)**

*Prerequisites:* BIOL 350 or BIOL 401. Intended for biology majors. Innate and acquired immunity. Recognition of antigens. Mechanisms of immune responses and their induction. Measurement and variations of immunity as in hypersensitivity and immune suppression, and their effects on the host.

**BIOL 436 Immunology Laboratory (2)**

*Prerequisites:* BIOL 402 or equivalent, and concurrent enrollment in BIOL 435 or 343. Laboratory illustrating antibody-antigen interactions, the cellular basis of immune responses, and the applications of immune and serological reactions. Extra fee required.

**BIOL 440 Ethical Issues in Science and Technology (3) [GE]**

*Prerequisites:* upper division standing and ENG 214 or equivalent. Ethical dimensions of science and technology. Conceptual and theoretical frameworks from the humanities and the life sciences. (Cross listed with ENGR 440. May not be repeated under alternate prefix.) (Formerly NEXA 440.)

**BIOL 442 Microbial Physiology (3)**

*Prerequisites:* BIOL 401, 402 with a grade of C- or better; CHEM 349 or equivalent. Intended for biology majors. Function, biosynthesis, structure, and chemistry of cells and viruses; transport, chemotaxis, and energy metabolism; the regulation of growth rate and growth efficiency; mechanisms of viral and microbial differentiation.

**BIOL 443 Microbial Physiology Laboratory (2)**

*Prerequisite:* BIOL 442 (may be taken concurrently). Intended for biology majors. Experiments in the physiology and metabolism of protists and bacteria: growth studies, cell fractionation procedures, enzyme preparations and assays, and analyses of cellular molecules; analytical instrumentation and statistical techniques. Extra fee required.

**BIOL 446 Microbial Genomics (4)**

*Prerequisites:* BIOL 401, 402, and 355 and consent of instructor. Techniques in comparative microbial genomics, analyzing and annotating a novel microbial genome as a class project. Plus-minus letter grade only.

**BIOL 453 General Parasitology (3)**

*Prerequisites:* BIOL 230, 240, and 355. Intended for biology majors. Biology of animal parasites: impact of parasitic infection on human health, culture, and socio-economic welfare; control and prevention; parasite structure/function; cellular, immunological, biochemical, and molecular parasitology.

**BIOL 454 Parasitology Laboratory (1)**

*Prerequisite:* BIOL 453 (may be taken concurrently). Methods and techniques in the examination, preparation, recognition, and identification of protozoan and metazoan parasites of animal hosts; human parasites with orientation toward clinical science. Extra fee required.

**BIOL 458 Biometry (4)**

*Prerequisite:* one course in college biology. Intended for biology majors. Biological measurements, experimental design, data analysis, statistical methods as applied to biological problems, methods of data resolution and presentation. Classwork, 3 units; laboratory, 1 unit.

**BIOL 460 General Entomology (4)**

*Prerequisites:* BIOL 230 and 240 or consent of instructor. Intended for biology majors. The insects and their close relatives; physiology; external and internal structures; life cycles; classification of insects to order; ecology in desert, field, forest, and aquatic habitats; economic and medical importance of orders. Classwork, 2 units; laboratory, 1 unit; field work, 1 unit. Extra fee required.

**BIOL 461 Insect Taxonomy (4)**

*Prerequisites:* BIOL 230 and 240. Intended for biology majors. Classification of insects and their close relatives to family; taxonomic categories and procedures. Classwork, 2 units; laboratory, 1 unit; field work, 1 unit. Extra fee required.

**BIOL 464 Medical Entomology (3)**

*Prerequisites:* BIOL 230 and 240. Intended for biology majors. Terrestrial arthropods and how they relate to human health. Arthropod-human interactions: entomophobia, allergy, venoms, parasitism, body infestations, disease vectors, epidemiology; major arthropod borne diseases and their impact on humans and society.

**BIOL 470 Natural History of Vertebrates (4)**

*Prerequisites:* BIOL 230, 240. Intended for biology majors. Structure, behavior, and distribution of amphibians, reptiles, birds and mammals, especially those of Central California. One all-day field trip required. Classwork, 2 units; laboratory, 1 unit; field work, 1 unit. Extra fee required.

**BIOL 475 Herpetology (3)**

*Prerequisite:* BIOL 230 and 240. Intended for biology majors. Evolution, classification, and distribution of amphibians and reptiles. The ecology and behavior of California species. Classwork, 2 units; laboratory and field work, 1 unit. Two weekend field trips. Extra fee required.

**BIOL 478 Ornithology (4)**

*Prerequisite:* BIOL 470 or consent of instructor. Intended for biology majors. Anatomy, physiology, behavior, distribution, classification, and evolution of birds; visits to the San Francisco Zoo, private aviaries and museums. Classwork, 2 units; laboratory, 1 unit; field work, 1 unit. One weekend field trip required. Extra fee required.

**BIOL 478 Ornithology (4)**

*Prerequisites:* BIOL 230 and BIOL 240. Intended for biology majors. Anatomy, physiology, behavior, distribution, classification, and evolution of birds; visits to the San Francisco Zoo, private aviaries and museums. Classwork, 2 units; laboratory, 1 unit; field work, 1 unit. One weekend field trip required. Extra fee required.

**BIOL 482 Ecology (4)**

*Prerequisites:* BIOL 230, 240. Intended for biology majors. Interrelationships between organisms and their environment, studied at the individual, population, community, and ecosystem levels. Field trips to various environments. Classwork, 3 units; laboratory and field work, 1 unit. Extra fee required.

**BIOL 492 Comparative Anatomy of Vertebrates (4)**

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Organ systems of selected vertebrate types. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**BIOL 500 Evolution and Diversity of Plants (4)**

*Prerequisites:* BIOL 230 and 240. Comparative biology and phylogeny of the major lineages of plants. Evolution and diversification of vegetative and reproductive structures, life histories, and ecological adaptations. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**BIOL 502 Biology of the Algae (3)**

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Collection, preservation, identification, and culturing of marine and freshwater algae. Comparative studies of morphology, life history, and ecology. Field trips. Classwork, 2 units; laboratory, 1 unit. Paired with BIOL 702. Students who complete BIOL 702 may not take BIOL 502 for credit. Extra fee required.

**BIOL 504 Biology of the Fungi (4)**

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Groups of fungi including their classification, life cycles, morphology and development, and economic significance. Classwork, 2 units; laboratory, 1 unit; field work, 1 unit. Extra fee required.

**BIOL 505 Comparative Anatomy of Vascular Plants (4)**

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Plant cells and tissues, their structure, development, and organization into vegetative and reproductive structures; evolutionary and ecological interpretation of tissues of vascular plants. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**BIOL 508 Plants and Human Affairs (3)**

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Plants useful or harmful to humans; origins and history, botanical relationships, chemical constituents that make them economically important, and their roles in literate and preliterate cultures. Classwork, 2 units; laboratory, 1 unit.

**BIOL 514 Plant Taxonomy (5)**

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Principles of plant taxonomy including classification systems and phylogenetic relationships within the flowering plants; practice in identification and collecting. Classwork, 2 units; laboratory and field work, 3 units. Paired with BIOL 814. Students who complete BIOL 814 may not take BIOL 514 for credit.

**BIOL 525 Plant Physiology (3)**

*Prerequisites:* BIOL 230, 240; CHEM 130. Intended for biology majors. Plant physiology: photosynthesis, water and mineral uptake and distribution, translocation of organic materials; environmental and internal plant regulatory factors, and their effect on growth and metabolism.

**BIOL 526 Plant Physiology Laboratory (2)**

*Prerequisite:* BIOL 525 (may be taken concurrently). Intended for biology majors. Physiology and metabolism of plants including photosynthesis, water balance, mineral nutrition, enzyme isolation and assay, cell fractionation, plant growth and development. Extra fee required.

**BIOL 527 Plant Physiological Ecology (3)**

*Prerequisite:* BIOL 230 and BIOL 240. Focus on physiological mechanisms influencing ecological processes in plants. Overview of fundamental processes such as carbon, water and nutrient relations. Paired with BIOL 827. Students who complete BIOL 827 may not take BIOL 527 for credit.

**BIOL 529 Plant Ecology (4)**

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Principles of ecology through the study of plants and plant associations. Ecological concepts, biotic-environmental dynamics and relationships, and levels of ecological integration. Biotic provinces and plant associations in California. Classwork, 2 units; laboratory, 1 unit; field work, 1 unit. Extra fee required.

**BIOL 530 Conservation Biology (3)**

*Prerequisite:* BIOL 230 and 240 or consent of instructor. Intended for biology majors. Principles of nature conservation, preservation, and management. Theory, laws, and practice of conservation science.

**BIOL 532 Restoration Ecology (3)**

*Prerequisites:* BIOL 230, 240. Focuses on restoration of degraded habitats, with emphasis on the application of ecological theory to restoration practice. A variety of habitats will be covered, especially those common to the Bay Area. (Formerly BIOL 531 Restoration Ecology.)

**BIOL 534 Wetland Ecology (4)**

*Prerequisites:* BIOL 230 and 240, or consent of instructor. Ecology of a variety of wetland types; biotic and abiotic characteristics and processes; conservation, restoration and management. Fieldtrips to wetland habitats and participation in field and/or greenhouse experiments. Classwork, three units; laboratory, one unit. Extra fee required.

**BIOL 550 Plant and Animal Interactions (4)**

*Prerequisites:* BIOL 230, 240, and an upper division course in ecology. Intended for biology majors. Interactions between animals and plants, including such general topics as herbivory, seed dispersal and predation, mycorrhizae, mimicry, myrmecochory, and the coevolutionary processes that lead to such interactions. Classwork, 3 units; laboratory, 1 unit. (Formerly BIOL 532 Plant and Animal Interactions.) Extra fee required.

**BIOL 555 Marine Invertebrate Zoology (4)**

*Prerequisites:* BIOL 230, 240. Intended for biology majors. Comparative laboratory and field study of local marine invertebrate animals; evolution and functional morphology. Classwork, 2 units; laboratory and field work, 2 units. Extra fee required.

**BIOL 556 Natural History of Marine Invertebrates (4)**

*Prerequisites:* BIOL 230, 240. *Recommended:* BIOL 555. Investigation of concept of biodiversity using California coastal communities in local intertidal and nearshore habitats as a field laboratory. Field trips required. Classwork, 2 units; Laboratory, 2 units.

**BIOL 570 Biology of Fishes (4)**

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Morphology, physiology, behavior, ecology, distribution, classification, and evolution of marine and fresh water fishes; California species. Classwork, 2 units; laboratory and field work, 2 units. Two weekend field trips. Extra fee required.

**BIOL 572 Colloquium in Ecology, Evolution, and Conservation (2)**

*Prerequisite:* Upper division standing or consent of instructor. Presentation of student and faculty research, recent journal articles, and presentations by outside speakers. Student speakers receive graduate seminar credit. May be repeated for a total of 8 units. This course is paired with BIOL 872. Students who complete BIOL 872 may not take BIOL 572 for credit.

**BIOL 575 Fisheries Biology (3)**

*Prerequisite:* BIOL 570 or a course in ecology. Intended for biology majors. Principles and practices in fish ecology and population dynamics, fishing methods and economics, and fisheries management. Classwork, 2 units; laboratory and field work, 1 unit. Extra fee required.

**BIOL 577 Ecological and Environmental Modeling (4)**

*Prerequisite:* BIOL 230 and 240 or a course in ecology, CHEM 111, MATH 109, or consent of instructor. Intended for biology majors. Theory and practice of mathematical and computer modeling of organisms, ecosystems, and their environment. Classwork, 3 units; laboratory, 1 unit.

**BIOL 580 Limnology (3)**

*Prerequisites:* BIOL 230, 240; CHEM 215, 216. *Recommended:* a course in ecology. Intended for biology majors. Physical, chemical, and biological characteristics of inland waters. Individual field projects. Several Saturday field trips. Classwork, 2 units; laboratory and field work, 1 unit. Extra fee required.

**BIOL 582 Biological Oceanography (4)**

*Prerequisites:* BIOL 230, BIOL 240. *Intended for biology majors.* Physical characteristics of oceans; biology of plankton and benthos, emphasizing production and food webs. Identification, sampling, and productivity measurements of marine organisms. Classwork, 3 units; laboratory and field work, 1 unit. Extra fee required.

**BIOL 584 Marine Microbial Ecology Laboratory (1)**

*Prerequisites:* BIOL 583 (may be taken concurrently) and CHEM 115. Laboratory section covers methods of measuring microbial rate processes (growth, nutrient uptake, etc.) and assessment of cell concentration in situ; isolation and culture of microbes. Extra fee required.

**BIOL 585 Marine Ecology (3)**

*Prerequisites:* BIOL 230, 240. Intended for biology majors. Plant and animal relationships in near-shore marine communities; temperate zone communities of the central California coast. Extra fee required.

**BIOL 586 Marine Ecology Laboratory (2)**

*Prerequisites:* BIOL 585 (may be concurrent). Laboratory and fieldwork in marine ecology introducing students to sampling methods, laboratory techniques, data collection and analysis. Field work in a variety of marine field environments. Includes use of primary literature and oral and written presentations.

**BIOL 600 Animal Behavior (3)**

*Prerequisites:* BIOL 230, BIOL 240. General introduction to animal behavior. Mechanisms of behavior including development, hormones, neural processes, and cognition. Evolutionary approaches including foraging, habitat selection, communication, sexual selection, mating systems, parental care, and social behavior.

**BIOL 609 Physics in Medicine (3)**

*Prerequisite:* PHYS 121 or equivalent and BIOL 230 or equivalent, or consent of instructor. Mechanics, thermodynamics and electricity applied to mechanical properties of tissues, metabolism, membrane transport, control and regulation of physical parameters. Sonography, electromagnetism and quantum physics applied to medical diagnostic technology and imaging.

**BIOL 610 Principles of Human Physiology (3)**

*Prerequisites:* BIOL 328, CHEM 101, or consent of instructor. Intended for non-majors. Physiology of human organ systems and principles of homeostasis.

**BIOL 611 Principles of Human Physiology Laboratory (1)**

*Prerequisite:* BIOL 610 (may be taken concurrently). Laboratory exercises in mammalian physiology. To accompany or follow BIOL 610. Extra fee required.

**BIOL 612 Human Physiology (3)**

*Prerequisites:* BIOL 230, 240; CHEM 130; PHYS 121. Intended for biology majors. Integrative mechanisms; control systems in cardio-vascular and respiratory physiology. Circulation; distribution and regulation of body fluids; digestive systems; metabolism.

**BIOL 613 Human Physiology Laboratory (2)**

*Prerequisite:* BIOL 612 (may be taken concurrently). Intended for biology majors. Experiments in preparation, recording, and analysis of functioning of human and other vertebrate organ systems and tissues. Laboratory. Extra fee required.

**BIOL 614 Vertebrate Histology (4)**

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Microscopic anatomy of tissues and organ systems of vertebrates. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**BIOL 615 Molecular Pathophysiology (3)**

*Prerequisites:* BIOL 350, 355, and 612. Intended for biology majors. Globally important diseases caused by genetic errors, environmental factors, or parasites. Each disease is studied at the molecular, cellular, and physiological levels.

**BIOL 616 Cardiorespiratory Physiology (3)**

*Prerequisites:* BIOL 230/240; BIOL 612 or 630 or consent of instructor; and PHYS 121. Intended for biology majors. The physiology of the cardiovascular and respiratory systems, and their interrelationship. Organ function in health and disease.

**BIOL 617 Environmental Physiology (3)**

*Prerequisite:* BIOL 612 or 630. *Intended for majors.* The physiological and biochemical mechanisms underlying adaptation of animals to diverse environments.

**BIOL 620 Endocrinology (3)**

*Prerequisites:* BIOL 230, 240; CHEM 130. Intended for biology majors. Mammalian endocrine system: regulation of reproduction, metabolism, water and mineral balance, and growth. Molecular mechanisms of hormone action.

**BIOL 621 Reproductive Physiology (3)**

*Prerequisites:* BIOL 230, 240, 330; CHEM 130. *Recommended:* BIOL 492 or other course in vertebrate anatomy. Intended for biology majors. Reproductive morphology and physiology of vertebrates.

**BIOL 622 Hormones and Behavior (3)**

*Prerequisites:* BIOL 230, 240, or consent of instructor; course in physiology or endocrinology strongly recommended. Intended for biology majors. Effects that hormones exert on behavior. Hormonal activation and organization of behavior and the nervous system. Actions of hormones compared in humans and in non-human species.

**BIOL 625 Hematology (3)**

*Prerequisites:* one semester of college physiology. Intended for biology majors. Origin and function of mammalian blood cells and plasma. Cell variations in health and disease. Classwork, 2 units; laboratory, 1 unit. Extra fee required.

**BIOL 627 Biophysics (3)**

*Prerequisites:* PHYS 121, CHEM 115, and BIOL 230, or equivalents or consent of instructor. Physical description of free energies and driving forces, energetic and time-scales of biological processes, interactions of biomolecules, diffusion transport and signaling, protein DNA and membrane structure, molecular motors, cooperative binding, membrane potentials and excitability, regulation of gene expression.

**BIOL 630 Animal Physiology (3)**

*Prerequisites:* BIOL 230, 240; CHEM 130. Intended for biology majors. The physiology of animals, including structure, function, and regulation of organ systems. Unifying principles and natural adjustments to stress.

**BIOL 631 Animal Physiology Laboratory (4)**

*Prerequisite:* BIOL 612 or BIOL 630. Intended for biology majors. Laboratory measurement of physiological, biochemical, and molecular responses of animals. Classical and modern methods in physiological research. Classwork, 2 units; laboratory 2 units. Paired with BIOL 731. Students who complete BIOL 631 may not take BIOL 731 for credit. Extra fee required.

**BIOL 638 Bioinformatics & Genome Annotation (4)**

*Prerequisite:* BIOL 230 or consent of instructor. Analyze and annotate a different chunk of genomic DNA. Results from this course will be incorporated into peer-reviewed publications, students listed as an author. Paired with BIOL 738. Students who have completed BIOL 638 may not take BIOL 738 for credit.

**BIOL 640 Cellular Neurosciences (3)**

*Prerequisites:* BIOL 230, 240, CHEM 130, and PHYS 121. *Recommended:* BIOL 350, 612. Intended for biology majors. Cellular and molecular analysis of neurons. Cellular, synaptic, and retinal neurophysiology. Electrical and chemical mechanisms underlying intra-neuronal and inter-neuronal signaling.

**BIOL 642 Neural Systems Physiology (3)**

*Prerequisites:* BIOL 328 or 329, and BIOL 612; BIOL 620, 630, and 640 recommended. Intended for biology majors. Communication between neural centers controlling sensory and motor systems, homeostasis, learning, thought, and affect. Connectivity, neurophysiological regulation, and neuropathology.

**BIOL 652 Science Education Partners in Biology (4)**

*Prerequisites:* BIOL 230 and 240, or one upper division biology course and consent of instructor. Introduction to biology teaching and learning; engage in K-12 classroom teaching; examine understanding of biology, discuss science education literature, and analyze biology lessons and student learning. Class work, 2 units; field work, 2 units. Extra fee required. [CSL may be available; consult index for page reference.]

**BIOL 694 Cooperative Internship in Biology (2-4)**

*Prerequisites:* sophomore standing and consent of biology faculty adviser. Written and oral report of work performed with outside agency; requested written report from agency supervisor. Evaluation of work by biology adviser and/or faculty committee. Open to biology majors. May be repeated for credit.

**BIOL 699 Special Study in Biology (1-3)**

*Prerequisites:* senior standing in biology and approval of the department and instructor concerned. Special study in the laboratory, field, or library under the direction of a member of the department. The student must present a written detailed report of the work accomplished to the staff of the department. May be repeated for credit.

## Graduate Courses

**BIOL 702 Biology of the Algae (3)**

*Prerequisite:* BIOL 230 and BIOL 240 Paired with BIOL 502. For course description see BIOL 502. Students who complete BIOL 502 may not take BIOL 702 for credit.

**BIOL 710 Advanced Biometry (3)**

*Prerequisite:* BIOL 458. Use of computers for critical data evaluation and decision-making. Accessing and using available statistical packages, database management, construction of phylogenetic tree models, and detection systems. Enzyme, luminescent and fluorescent assays, and their successful application in laboratory medicine or biological research are emphasized.

**BIOL 711 Immunoassays (3)**

*Prerequisite:* CHEM 349 and BIOL 435 or equivalent. (BIOL 435 may be concurrent.) Principles and applications of antigen-antibody interactions, immunoassay design, and detection systems. Enzyme, luminescent and fluorescent assays, and their successful application in laboratory medicine or biological research are emphasized.

**BIOL 712 Biomedical Chemistry Laboratory (1-3)**

*Topic to be specified in Class Schedule.* May be repeated as topics vary.

**BIOL 713 Advances in Biomedical Chemistry (1-3)**

*Topic to be specified in Class Schedule.* May be repeated as topics vary.

**BIOL 714 Biomedical Enzymology (3)**

*Prerequisite:* CHEM 349 or equivalent. Fundamental knowledge of enzymes, cofactors, and enzyme kinetics. Laboratory and computer exercises focus on action and kinetics of enzymes commonly used in medical diagnosis and/or biotechnology research. Classwork, two units; laboratory, one unit. Extra fee required.

**BIOL 716 Skills for Scientific Proposal Writing (3)**

*Prerequisites:* graduate standing and consent of instructor. Development of technical writing skills through the process of writing and editing research proposals based on students' own research projects.

**BIOL 730 Pharmacology (3)**

*Prerequisites:* BIOL 350, BIOL 612, CHEM 349, or consent of instructor. Pharmacology principles, including pharmacokinetics of drug absorption and elimination. Mechanisms of drug action on the body. Commonly used pharmaceutical drugs.

**BIOL 731 Animal Physiology Laboratory (4)**

*Prerequisite:* BIOL 630 or BIOL 612 Paired with BIOL 631. For course description see BIOL 631. Students who complete BIOL 731 may not take BIOL 631 for credit.

**BIOL 737 Plant Metabolism (3)**

*Prerequisite:* BIOL 525 or CHEM 340 or 349. Intended for biology and chemistry majors. Plant metabolism: photosynthesis, cell wall biosynthesis, nitrogen and sulfur metabolism, secondary plant products. Common metabolic pathways with emphasis on functioning and regulation of these pathways in plants.

**BIOL 738 Bioinformatics & Genome Annotation (4)**

*Prerequisite:* BIOL 357 or consent of instructor. For course description, see BIOL 638. Paired with BIOL 638. Students who have completed BIOL 738 may not take BIOL 638 for credit.

**BIOL 741 Electron Microscopy (4)**

*Prerequisite:* graduate or senior standing, and consent of instructor. Preparation of biological and inorganic materials for scanning and transmission electron microscopy, x-ray microanalysis, EBSD, CL, operation of the electron microscope(s), and data interpretation. (Cross listed with CHEM/GEOL 741. May not be repeated under alternate prefix.) Classwork, 1 unit; laboratory, 3 units. Extra fee required.

**BIOL 743 Cell and Molecular Techniques (3)**

*Prerequisites:* graduate standing; BIOL 357 (may be concurrent); CHEM 340 and 341. Lecture and discussion of modern techniques and design of strategies used in cell and molecular biology research. Includes discussion of societal issues.

**BIOL 756 Principles of Human Genetics (3)**

*Prerequisite:* Upper-division genetics course and consent of instructor. Intended for graduate students in biology and genetic counseling. Inheritance, molecular genetics, cytogenetics, variation, mutation, family history, pedigree analysis, genetic risk calculation, quantitative traits, evolution and population genetics.

**BIOL 760 Cancer Biology (3)**

*Prerequisites:* CHEM 340 or CHEM 349; BIOL 350 or BIOL 401; BIOL 357; and classified graduate status or consent of instructor. Molecular and cellular basis of cancer. Emphasis on potential therapeutic targets, including cell cycle regulators, signal transduction mechanisms, cellular differentiation factors, oncogenes, tumor suppressors.

**BIOL 761 Molecular and Cellular Immunology I (2-3)**

The realm of immunology with emphasis on areas of current interest and advances. Both theory and clinical applications are included for such relevant topics as: major histocompatibility locus, monoclonal antibodies, T-cell regulation, immunosuppression, autoimmunity, immunotherapy. (Formerly BIOM 760.)

**BIOL 763 Advances in Biomedical Immunology (1-3)**

*Topic to be specified in Class Schedule.* May be repeated as topics vary.

**BIOL 765 Biomedical Immunology Advanced Topics (1-2)**

Faculty direct and evaluate student presentations of seminars on selected advanced topics in clinical immunology. (Formerly BIOM 884.)

**BIOL 772 Molecular Methods in Medical Microbiology (4)**

*Prerequisite:* graduate status, biochemistry and microbiology courses with laboratory, or consent of instructor. Overview of clinically significant microorganisms, emphasizing functional roles of biological macromolecules in pathogenesis and genetic applications. Lab covers basic principles and current molecular techniques used in model microbes. Classwork, 1 or 2 units; laboratory, 1 or 2 units. Extra fee required.

**BIOL 773 Advances in Biomedical Microbiology (1-3)**

*Topic to be specified in Class Schedule.* May be repeated as topics vary.

**BIOL 775 Biomedical Microbiology Advanced Topics (2)**

*Prerequisite:* graduate standing or consent of instructor. Primary scientific articles on important human microbial diseases and a centenary perspective of scientific discovery in microbiology are emphasized. Students are required to participate in article presentations and discussion. (Formerly BIOM 882.)

**BIOL 781 Biomedical Virology Foundations (1-3)**

*Topic to be specified in Class Schedule.* Core lectures with emphasis on virology. May be repeated as topics vary.

**BIOL 782 Developmental Biology (3)**

*Prerequisite:* graduate standing; grade of C- or better in BIOL 350 and 355 or equivalent, or consent of instructor. Paired with BIOL 382. See BIOL 382 for course description. Students who complete BIOL 782 may not take BIOL 382 for credit.

**BIOL 783 Advances in Biomedical Virology (1-3)**

*Topic to be specified in Class Schedule.* May be repeated as topics vary.

**BIOL 784 Biomedical Virology Applications (1-3)**

*Topic to be specified in Class Schedule.* May be repeated as topics vary.

**BIOL 792 Molecular Virology (4)**

Virology laboratory covering the growth and detection of viruses. Techniques include the propagation and titration of viruses in cell culture as well as the detection of viral infections by immunochemical and nucleic acid-based techniques. Classwork, 2 units; laboratory, 2 units. (Formerly BIOM 879.)

**BIOL 793 Advances in Biomedical Hematology (1-3)**

*Topic to be specified in Class Schedule.* May be repeated as topics vary.

**BIOL 800 The Higher Fungi (3)**

*Prerequisites:* graduate or senior standing, BIOL 504 or equivalent and/or consent of instructor. Morphology, microscopic anatomy, taxonomy: biochemical and cytological aspects, ecology and artificial cultivation of the macroscopic fungi. Classwork, 2 units; laboratory and field work, 1 unit. Extra fee required.

**BIOL 801 Population Genetics (3)**

*Prerequisites:* graduate or senior standing and BIOL 355 or consent of instructor. Genetic basis of evolution. Effects of mating system, drift, migration, selection on genetic variation. Quantitative genetics, applications of molecular techniques in evolutionary biology. Classwork, 2 units; laboratory, 1 unit. Extra fee required.

**BIOL 803 Core Concepts of Biotechnology (3)**

*Prerequisites:* CHEM 340 and 341, or BIOL 355 or BIOL 357, or equivalent background with consent of instructor. Introductory course for students interested in careers in biotechnology. Core concepts of biotechnology to keep abreast of current trends, biomedical applications and historical foundations.

**BIOL 805 Evolutionary Genetics (4)**

*Prerequisites:* graduate or senior standing and BIOL 355 or consent of instructor. Principles of evolutionary genetics, including an emphasis on evolutionary quantitative genetics, molecular population genetics, molecular evolution and genomics. Classwork, 2 units; Laboratory 2 units. Extra fee required.

**BIOL 814 Plant Taxonomy (5)**

*Prerequisite:* BIOL 230 and BIOL 240 Paired with BIOL 514. For course description see BIOL 514. Students who complete BIOL 514 may not take BIOL 814 for credit.

**BIOL 815 Advanced Phylogenetic Analysis (4)**

*Prerequisite:* BIOL 812 or consent of instructor. Methods and techniques of phylogenetic inference. Parsimony, maximum likelihood, quantitative phylogenetic analysis, and comparative methods. Molecular data in evolution. Classwork, 3 units; laboratory, 1 unit. Extra fee required.

**BIOL 818 Molecular Techniques in Evolution and Ecology (4)**

*Prerequisites:* BIOL 355 or equivalent and consent of instructor. Molecular techniques commonly used in the fields of evolutionary biology and ecology. PCR and direct DNA sequencing. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**BIOL 821 Fire Ecology (3)**

*Prerequisites:* graduate or senior standing and BIOL 529 or consent of instructor. Role of fire as an environmental factor in the life histories and succession of plants and/or animals. Classwork, 2 units; laboratory, 1 unit. Extra fee required.

**BIOL 827 Plant Physiological Ecology (3)**

*Prerequisite:* BIOL 230 and BIOL 240; Graduate standing. Paired with BIOL 527. See BIOL 527 for course description. Students who complete BIOL 527 may not take BIOL 827 for credit.

**BIOL 830 Advanced Conservation Biology (3)**

*Prerequisites:* BIOL 530 and graduate status or consent of instructor. Theory and practice of nature conservation; traditional resource management; new theory of the conservation of small populations. Classwork, 2 units; laboratory, 1 unit. Extra fee required.

**BIOL 840 Community Ecology (3)**

*Prerequisites:* graduate or senior standing in biology; course in ecology. Modern concepts and approaches to natural community structure, organization, and dynamics. Historical and current theoretical models, forces structuring communities, interactions among communities, role of exotic species.

**BIOL 843 Population Biology (3)**

*Prerequisites:* graduate or senior standing, a course in genetics, ecology, biometry. Modern concepts of structure, organization, and evolution of plant and animal populations. Genetical, ecological, evolutionary, and theoretical approaches to the study of populations.

**BIOL 844 Research Skills (3)**

*Prerequisite:* graduate standing or consent of instructor. Paired with BIOL 344. See BIOL 344 for course description. Students who have completed BIOL 344 may not take BIOL 844 for credit.

**BIOL 848 Behavioral Ecology (3)**

*Prerequisite:* Graduate standing or consent of instructor. Evolution of behavior: optimal foraging, predation, sexual selection, social organization, habitat selection, and communication.

**BIOL 849 Bioethics (3)**

*Prerequisite:* graduate standing or consent of instructor. Paired with BIOL 349. See BIOL 349 for course description. Students who complete BIOL 849 may not take BIOL 349 for credit.

**BIOL 861 Advances in Cell and Molecular Biology (2)**

*Prerequisites:* graduate status and consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**BIOL 862 Advances in Ecology and Systematic Biology (2)**

*Prerequisites:* graduate status and consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**BIOL 863 Advances in Marine Biology (2)**

*Prerequisites:* graduate status and consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**BIOL 864 Advances in Microbiology (2)**

*Prerequisites:* graduate status and consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**BIOL 865 Advances in Physiology and Behavioral Biology (2)**

*Prerequisites:* graduate status and consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**BIOL 871 Colloquium in Microbiology, Cell and Molecular Biology (2)**

*Prerequisite:* consent of instructor. Presentation of student and faculty research, recent journal articles, and presentations by outside speakers. Does not fulfill graduate seminar requirement. May be repeated for a total of 4 units toward the Graduate Approved Program (GAP).

**BIOL 872 Colloquium in Ecology, Evolution, and Conservation (2)**

*Prerequisite:* Graduate standing. Paired with BIOL 572. See BIOL 572 for course description. Students who complete BIOL 572 may not take BIOL 872 for credit.

**BIOL 880 Seminar in Biology (1)**

*Prerequisites:* completed undergraduate major or minor in biology and BIOL 700 (enrollment may be concurrent). Topic to be specified in Class Schedule. May be repeated 4 times when topics vary.

**BIOL 881 Seminar: Cell and Molecular Biology (1)**

*Prerequisites:* graduate status and consent of instructor. Topic to be specified in Class Schedule. May be repeated 4 times when topics vary.

**BIOL 882 Seminar: Ecology and Systematic Biology (1)**

*Prerequisites:* graduate status and consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**BIOL 883 Seminar in Marine Biology (1)**

Topic to be specified in Class Schedule. Seminar on topics in marine biology.

**BIOL 884 Seminar: Microbiology (1)**

*Prerequisites:* completed undergraduate major or minor in biology and BIOL 700 (enrollment may be concurrent). Topic to be specified in Class Schedule. May be repeated 4 times when topics vary.

**BIOL 890 Cooperative Internship (2-3)**

*Prerequisite:* Graduate standing. For students who are conducting cooperative internship and work-related research experience. May be repeated for a total of 6 units.

**BIOL 891 Biomedical Research Design (1-2)**

*Prerequisite:* Must have fulfilled the GET requirement and have a specific research topic approved by a mentor. Exercises encompass the elements of biomedical laboratory science research proposals: needs assessment, literature review, clinical significance, feasibility, controls, materials and methods, budget, data presentation, human/animal aspects, record keeping, reference notation, and statistical significance. (Formerly BIOM 801/802.)

**BIOL 895 Research Project (3)**

*Prerequisite:* BIOL 896. Supervised independent and original laboratory or field investigation. Guidelines available at the biology department office. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by Graduate Studies before registration. CR/NC grading only. (Formerly BIOM 895.)

**BIOL 896 Directed Reading (1)**

*Prerequisite:* departmental approval; permission is required for concurrent enrollment in BIOL 897 or BIOL 895. Supervised preparation of the research proposal for research project or thesis research, and completion of the preliminary oral examination. May not be repeated. (Formerly BIOM 896.)

**BIOL 897 Research (1-3)**

*Prerequisites:* completed undergraduate major in biology and classified status. Independent and original laboratory or field investigation under supervision of a faculty member. May be repeated.

**BIOL 898 Master's Thesis (4)**

*Prerequisites:* advancement to candidacy for the Master of Arts in Biology. Advancement to Candidacy and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**BROADCAST AND ELECTRONIC COMMUNICATION ARTS***Undergraduate Courses***BECA 200 Introduction to Electronic Communication (3)**

*Enrollment priority given to BECA majors.* Evolution of the major electronic media institutions of radio, television, and cable as social, political, economic, and vocational forces in American society. Impact and development of new electronic communication technologies.

**BECA 201 Life on TV: A Critical View (3) [GE]**

Elements of basic kinds of television programs: drama, sports, comedy, documentary, and variety; critical criteria for evaluating programs.

**BECA 230 Audio Production I (3)**

*Prerequisites:* BECA major and departmental permission. Must be taken concurrently with BECA 231. Theoretical aspects of sound, acoustics, and audio signal flow in radio, television, and recording operations. Aesthetic aspects of sound mixing in broadcasting applications. Extra fee required.

**BECA 231 Audio Laboratory (1)**

*Prerequisites:* BECA major and departmental permission. Must be taken concurrently with BECA 230. Production procedures and student projects utilizing control consoles, turntables, microphones, tape recorders, and editing. Extra fee required.

**BECA 240 Video Production (3)**

*Prerequisites:* BECA major and departmental permission. Must be taken concurrently with BECA 241. Use of television equipment and facilities; camera operations, audio and video control, lighting, tape recorders, graphics, scenery, and portable audio and video production units. Extra fee required.

**BECA 241 Video Laboratory (1)**

*Prerequisites:* BECA major and departmental permission. Must be taken concurrently with BECA 240. Extra fee required.

**BECA 300 GW Broadcast and Electronic Communication Arts Research - GVAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C- or better. Enrollment priority for BECA majors. Communication research. Acquiring and evaluating information and organizing the results into written form. Investigation of sources, methods, cataloging, philosophies of media research, and questions of reliability and validity. (ABC/NC grading only.)

**BECA 301 Media Literacy in the Electronic Culture (3) [GE]**

*Prerequisite:* upper division standing. Content, effects, and influence of electronic media. Analytical and critical skills necessary to become a discerning user of television, radio, and the Internet. Application of visual, informational, and media literacy models.

**BECA 305 KSFS Radio I (3)**

*Prerequisite:* consent of instructor. Production and performance for radio; development of skills used in the daily operation of a radio station: programming, scheduling, and planning.

**BECA 310 Radio Production (3)**

*Prerequisite:* BECA 230, 231; BECA major status; and consent of instructor. Analysis and production of radio programs; experimental approaches designed to explore the potential of radio. Laboratory.

**BECA 321 Critical Study of Popular Culture (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Public arts from the standpoint of structures and themes; relationship to social value systems; form, vision, and function in the public arts.

**BECA 324 Law and Regulation of the Electronic Media (3)**

*Prerequisites:* BECA 200, junior standing, and consent of instructor. Enrollment priority given to BECA majors. Legal and regulatory aspects of electronic media: impact of F.C.C. licensing and regulation within framework of First Amendment.

**BECA 330 Audio Production II (3)**

*Prerequisites:* BECA 230, 231, or equivalents; BECA major status; departmental permission; and consent of instructor. Radio and television production, in-studio recording on multi-channel recording consoles. Use of board equalization, reverberation systems, graphic equalizers, limiters, and the art of overdubbing. Laboratory.

**BECA 335 Audio for Video (3)**

*Prerequisites:* BECA 230/231; BECA major; departmental permission. Production theory and practice as applied to audio recording for video. Pre-production planning and location/studio recording situations.

**BECA 340 Media Aesthetics I (3)**

*Prerequisites:* sophomore standing or above or consent of instructor. Enrollment priority given to BECA majors. Aesthetic analysis of video, film, and related electronic media based on an examination of fundamental image and sound elements.

**BECA 348 Video Editing I (3)**

*Prerequisite:* departmental permission; BECA 240 and 241. Introduction to major aesthetic and technical considerations in video editing, and practical application in electronic media production.

**BECA 350 Media Performance I (3)**

*Prerequisites:* BECA 240, 241; BECA major; departmental permission. Performance training for the electronic media; exercises for improving articulation, pronunciation, interpretation, vocal quality, and communicative abilities; the international phonetic alphabet. Laboratory.

**BECA 370 Writing for the Electronic Media (3)**

*Prerequisites:* BECA 300 and consent of instructor; enrollment priority given to BECA majors. Writing scripts for video productions, television and radio programs, public service announcements, commercials, and documentaries.

**BECA 390 The Age of Information (3) [GE]**

*Prerequisite:* upper division standing. Age of information explores the historical, social, political, and personal implications of modern communication technology. Understanding how it contributes to change in our society.

**BECA 395 Close up on Electronic Media (1)**

*Prerequisite:* upper division standing or consent of instructor. Topic to be specified in Class Schedule. Topics in video, audio, or interactive electronic media. May be repeated for a total of 4 units as topics vary. Only 3-units of BECA 395 may count for credit in BECA major. (CR/NC grading only.)

**BECA 415 Advanced Television Production Workshop (3)**

*Prerequisites:* departmental permission, BECA 240/241, and consent of instructor. Development and production of Television Center programming for cable or broadcast. May be repeated for a total of 6 units with consent of instructor.

**BECA 422 Social Aspects of Electronic Media (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Functions, effects, and uses of public media; roles of media in affecting social, cultural, and political values; avenues of freedom and control in media; problems and opportunities presented by evolving media technology.

**BECA 423 Economic Aspects of Broadcasting and Electronic Media (3)**

*Prerequisites:* BECA 200, junior standing, and consent of instructor. Enrollment priority given to BECA majors. Business practices and interrelationships of broadcast stations, networks, advertising agencies, and cable companies; buying and selling media, programming, promotion, and legal and ethical issues.

**BECA 425 Television/Video Program Design (3)**

*Prerequisites:* BECA 200 and junior standing or consent of instructor. Process of designing educational television series. Pre-production stages of series development. Paired with BECA 725. Students who have taken BECA 425 may not take BECA 725 later for credit.

**BECA 428 Electronic Media Management (3)**

*Prerequisites:* BECA major and upper division standing. Concepts, methods, and current practices in electronic media organization and management. Decision making, implementation approaches, and communication applications for the small electronic media operation. Resource allocation, facility design and operation, project management, operation scheduling, and quality control.

**BECA 430 Advanced Audio Production I (3)**

*Prerequisites:* BECA 330, BECA major status, departmental permission, and consent of instructor. Audio techniques in the specialized fields of audio recording and sound reinforcement for television, film, and music recording. May be repeated for a total of 9 units.

**BECA 435 Aesthetics of Sound (3)**

*Prerequisites:* BECA 230/231 or equivalent. Aesthetics of sound and the basic principles involved in theoretical and critical analysis of audio in media, including radio, television, film, music, and other audio-visual communication. Paired with BECA 735. Students who have completed BECA 435 may not take BECA 735 later for credit.

**BECA 440 Media Aesthetics II (3)**

*Prerequisites:* BECA 240, 241, 340, or equivalents; BECA major; and consent of instructor. Problems in applied aesthetics. Laboratory.

**BECA 450 Media Performance II (3)**

*Prerequisites:* BECA 350 and consent of department or instructor. Development and rehearsal of electronic media presentation and communication skills. Theories of the presentation of self via electronic media. Studio and laboratory practice. Strategies for management of performer, director, and crew relationships.

**BECA 460 Introduction to News on Broadcast and Electronic Media (3) [GE]**

*Prerequisites:* BECA 200; upper division standing or consent of instructor. Values, theories, sources, and content of radio and television newscasts. Professional roles, management, and operations of broadcast and cable news at international, national, and local levels.

**BECA 462 The Television Documentary in the United States (3)**

*Prerequisites:* BECA major; departmental permission. History and analysis of documentary programming on American broadcast television and cable: terminology, standards, and accepted practices associated with television documentary production in the U.S.

**BECA 470 Dramatic Writing for Television and Electronic Media (3)**

*Prerequisites:* BECA 370 and consent of instructor. Television as a unique medium for drama; limitations and potentialities of the medium in relation to form, style, timing, characterization, and story selection.

**BECA 485 Women and Media (3) [GE]**

*Prerequisite:* upper division standing. Analytic modes, including feminist, psychoanalytic, and economic criticism, to assess both how women are represented in mass media and the status of women employed in mass media. (Cross listed with WGS 485. May not be repeated under alternate prefix.)

**BECA 487 Children and Television (3)**

*Prerequisite:* upper division standing. How children use and are affected by mass media, particularly television. Theory and research describing children and television. Role of television in children's development. (Cross listed with ITEC 487. May not be repeated under alternate prefix.)

**BECA 488 Asian Media (3)**

*Prerequisite:* upper division standing. Critical, theoretical, and cultural analysis of China, India, and Japan. Aesthetics of aural and visual representations in Asian television and cinema productions.

**BECA 490 Television and Social Change (3) [GE]**

*Prerequisite:* upper division standing. Nature of social change: television's potential--or lack of potential--to bring about social change, role of television in achieving that change, and critique of relevant programming intended to effect change. (Plus-minus letter grading only.)

**BECA 500 International Broadcasting (3)**

*Prerequisite:* consent of instructor. Broadcast systems of the world: developed and developing nations. Programming of many cultures; the role of satellites in promoting exchange of programs. Relationship between governments, societies, and the media. Issues in international communication.

**BECA 502 Environmental Communication on the Electronic Media (3) [GE]**

*Prerequisite:* upper division standing. Representation of environmental issues in the electronic media, including radio, television, Internet, and CD ROMs. Strategies for using electronic media to communicate environmental topics.

**BECA 505 KSFS Radio II (3)**

*Prerequisites:* BECA 305 and consent of instructor. Students become managers and staff responsible for the daily operation of KSFS Radio. May be repeated for a total of 9 units.

**BECA 510 Music Performance Recording and Production (3)**

*Prerequisites:* BECA 230/231; BECA major; departmental permission. Student teams have responsibility for the production of weekly, on-air, stereo radio concert program featuring major campus concert performances. May be repeated for a total of 9 units.

**BECA 515 Television Center Crew (3)**

*Prerequisites:* BECA 240/241; BECA major; departmental permission. "Hands-on" experience: camera operator, lighting, technical director, audio technician, videotape recorder, floor director. Complex productions with multiple cameras, sets, and lighting set-up.

**BECA 516 Television News Crew (3)**

*Prerequisites:* BECA 240, BECA 241; BECA major. Production crew for Television Center newscasts; practical experience as director, technical director, floor director, camera operator, audio engineer, and in other production positions.

**BECA 530 Advanced Audio Production II (3)**

*Prerequisites:* BECA 430; BECA major; departmental permission. Major audio productions skills through active participation in challenging audio media productions. Audio for television, film, record production, and sound reinforcement. May be repeated for a total of 9 units.

**BECA 533 Advanced Music Recording Workshop (3)**

*Prerequisite:* BECA 433 or BECA 330 and BECA 430 or equivalent. Aesthetics of current commercial recording techniques. Studio and simulated remote live recording session. Complex mixes. Laboratories in editing and music inter-cutting.

**BECA 535 Advanced Audio for Video (3)**

*Prerequisites:* BECA 335; BECA major; departmental permission. Sound theory and practice as applied to post-production audio for video. Time code synchronization of sound effects, music, and dialogue. Field recording and mixing for picture.

**BECA 536 Creativity and Problem Solving in Electronic Media (3)**

*Prerequisite:* departmental permission and consent of instructor. Enrollment priority given for BECA majors. Exploration of the creative process for media students. Use of multimedia, computers, and games as tools to enhance creativity and to develop problem-solving skills.

**BECA 545 Television Directing I (3)**

*Prerequisites:* BECA 240/241; BECA major status; departmental permission; and consent of instructor. Creating and directing a variety of television productions. Extra fee required. Laboratory.

**BECA 546 Electronic Field Production I (3)**

*Prerequisites:* BECA 240, 241; BECA major; departmental permission. Technical and aesthetic elements of video field production and editing. Program conceptualization, pre-production, production, and post-production. Extra fee required.

**BECA 547 Video Editing II (3)**

*Prerequisites:* BECA 348; BECA major; departmental permission. Developmental study of the video editing process. Focus on editing stages, editing decision making, editing styles for different program genres. Media asset management and the role of the editor in the production process. Project based course.

**BECA 550 The Broadcast Interview (3)**

*Prerequisites:* BECA 240/241 and departmental permission. Interview as an essential tool for broadcast information gathering and presentation. Interview styles, question research, production approaches for television and radio, and special interview formats such as talk shows and political debates.

**BECA 559 Sports Reporting for Television (3)**

*Prerequisites:* BECA 560, BECA 546. Specialized skills and practices of television sports journalism: writing to visuals, sports field reporting, and interviewing athletes. Emphasis on the student's ability to research and select relevant topics and issues.

**BECA 560 Radio and Television News Writing (3)**

*Prerequisites:* BECA major, departmental permission, or consent of instructor. Reporting and writing for broadcast news, writing and editing the newscast, and field reporting techniques.

**BECA 561 News Reporting for Television (3)**

*Prerequisites:* BECA 240/241 and BECA 560; BECA major; departmental permission. Techniques of broadcast and cable reporting; writing for visual production; production of field reports; use of research retention techniques; and experimental use of visuals in newscasts.

**BECA 562 Television/Video Documentary Production (3)**

*Prerequisites:* BECA 462; BECA 546; BECA major; departmental permission. Methods for the production of documentaries for broadcast and cable television.

**BECA 570 Writing for Electronic Media Genres (3)**

*Prerequisites:* BECA 370, 470, or consent of instructor. Topic to be specified in the Class Schedule. Writing scripts for the generic forms of electronic media: situation comedies, soap operas, and serial dramas. May be repeated when topics vary.

**BECA 576 Internship in Broadcast and Electronic Communication Arts (3)**

*Prerequisites:* BECA major, departmental permission, junior standing or higher, and consent of instructor. Internship experience in professional broadcast and electronic media organization. May be repeated once; repeat credit may not be counted for major. CR/NC grading only.

**BECA 580 Media in Community Service (3)**

*Prerequisites:* BECA 546 or consent of instructor. Use of media for public agencies and institutions and by non-profit groups; creating and placing public service announcements; developing media programs for agencies, institutions, and community groups; budgeting; grant-seeking. Field work. May be repeated for a total of 6 units with consent of instructor. [CSL may be available; consult index for page reference.]

**BECA 581 Electronic Media and Social Justice I (3)**

*Prerequisites:* BECA major, BECA 546 (may be taken concurrently), or consent of instructor. Planning and production of electronic media content for social justice goals. Community integration via domestic non-profit organizations. Preparation for production in international contexts. (Plus-minus letter grade only.)

**BECA 590 New Electronic Communication Technologies (3)**

*Prerequisites:* HTML or equivalent; BECA major; department and instructor permission. Lecture/laboratory course focusing on innovation and change in acquisition, distribution, storage, and display systems of electronic communication. Emphasis on the interactive aesthetic of electronic media.

**BECA 593 Interactive Electronic Media Workshop (3)**

*Prerequisite:* BECA major; departmental permission. Design and production of online interactive media, such as web pages, with emphasis on broadcast technologies and distribution principles.

**BECA 594 Mobile Electronic Media (3)**

*Prerequisite:* BECA Major and senior standing. Aspects of mobile media: business and legal environments; social and personal impact; writing for mobile, news on mobile, producing and marketing mobile content.

**BECA 595 Explorations in Broadcast and Electronic Communication Arts Production (3)**

*Prerequisite:* departmental permission. Topic to be specified in Class Schedule. Laboratory. May be repeated as topics vary.

**BECA 600 Senior Seminar (3)**

*Prerequisite:* senior standing. Relationships between various academic disciplines and the broadcast media.

**BECA 623 Ethics and Responsibility in the Electronic Media (3) [GE]**

*Prerequisites:* upper division standing. Concept of professionalism and roles of individuals, law and government in determining ethical standards in the electronic media.

**BECA 626 Corporate and Institutional Media Production (3)**

*Prerequisites:* BECA 546 and consent of instructor. Organization and production of television projects in corporate and institutional settings, including health care facilities and governmental agencies: employee information and training projects, teleconferencing, interactive media, and live multi-camera narrowcasting.

**BECA 646 Electronic Field Production II (3)**

*Prerequisites:* BECA 546, BECA major, departmental permission, and consent of instructor. Electronic field production and editing; production and analysis of field-based television program material; relationship between production variables and aesthetic practices. Paired with BECA 746. Students who have completed BECA 646 may not take BECA 746 for credit.

**BECA 647 Advanced Video Production (3)**

*Prerequisites:* BECA 546, BECA major, departmental permission, and consent of instructor. Professional-level production of announcements and messages created for a client and intended for broadcast. Production planning and effective acquisition and post production. [CSL may be available; consult index for page reference.]

**BECA 648 Digital Video Editing II (3)**

*Prerequisites:* BECA 547; BECA major; departmental permission; consent of instructor. Theoretical and practical aspects of the principles of digitizing and editing videotape.

**BECA 650 TV Center Sports I (3)**

*Prerequisites:* BECA 240/241, BECA 546, and BECA 370. Demanding advanced studio and field production, news writing, reporting, and performance. Shoot/edit sports highlights and features. Capstone course produces weekly TV program for SF media market. (May be repeated for a total of 6 units.)

**BECA 660 Television Center News (4)**

*Prerequisites:* BECA 560 and 561; BECA major status; departmental permission; and consent of instructor. Operation of a cablecast news service covering the city of San Francisco; research and production of stories for newscasts; coverage of San Francisco beats; researching, editing, and compiling of television news packages. May be repeated for a total of 8 units.

**BECA 665 News Reporting and Producing for Radio (3)**

*Prerequisites:* BECA 560, departmental permission, and consent of instructor. Basics of radio news: gathering, writing, editing, and producing news reports and features and anchoring newscasts for campus radio station KSFS. Activity.

**BECA 670 Writing for Interactive Electronic Media (3)**

*Prerequisites:* BECA 370; BECA major; departmental permission. Script writer's role in the creation of interactive electronic media. Differences between conventional screen narrative and interactive story telling and information presentation.

**BECA 685 Projects in the Teaching of Broadcast and Communication Arts (1-4)**

*Prerequisites:* BECA major, departmental permission, and consent of instructor. Developing courses and lectures, leading discussions, and teaching and evaluating students of the broadcast and electronic communication arts. Teaching experiences as instructional aide in assigned BECA course. May be repeated for a total of 4 units.

**BECA 693 Interactive Electronic Media Workshop II (3)**

*Prerequisites:* BECA 593; BECA major; departmental permission. Advanced workshop in design and production of on-line interactive media.

**BECA 695 Practicum in Broadcast and Electronic Communication Arts (3)**

*Prerequisites:* consent of supervising staff and department chair. Advanced projects in broadcast and communication arts under faculty supervision. May be repeated for a total of six units. Laboratory.

**BECA 699 Special Study (1-3)**

*Prerequisites:* upper division standing and written consent of supervising instructor, major adviser, and department chair. Individual study, under the supervision of a faculty member selected by the student, of an aspect of broadcast and electronic communication arts not included in the curriculum.

**Graduate Courses****BECA 700 Introduction to Graduate Study (4)**

*Prerequisites:* admission to M.A. in Radio and Television. Introduction to graduate study in broadcast and electronic communication. History of mass communication and electronic media theory. Academic writing, graduate-level research, and survey of BECA faculty's teaching, research, and production activity.

**BECA 701 Formula and Creativity in the Public Arts (3)**

*Prerequisite:* BECA 700 or consent of instructor. Relationship between formula and creativity; theory and practice of formulas and genres, particularly in relation to the public arts; systems of criticism.

**BECA 702 Ethics and Responsibility in the Electronic Media (3)**

*Prerequisite:* BECA 700 or consent of instructor. Broadcast industry self-regulatory codes of ethics and responsibility; concepts of freedom and responsibility as they relate to broadcasters, the government, and the public.

**BECA 703 Seminar in Theory and Research (3)**

*Prerequisite:* BECA 700. Graduate seminar in broadcast theory and research methods.

**BECA 706 Seminar in Media Aesthetics and Production Theory (3)**

*Prerequisite:* BECA 700 or consent of instructor. Investigation of perceptual conditions and aesthetic theories that guide the interpretation, analysis, and creation of visual and sound images in the electronic media; how these theories may be creatively applied in the production process.

**BECA 707 Seminar in International Broadcasting (3)**

*Prerequisite:* BECA 700 or consent of instructor. International broadcasting: research methods and theory, comparative broadcast systems, new technology, short-wave, the influence of international politics and legislation, media ownership, and international broadcasting ethics.

**BECA 725 Television/Video Program Design (3)**

*Prerequisite:* BECA 700 or consent of instructor. Process of designing educational television series. Pre-production stages of series development. Paired with BECA 425. Students who have taken BECA 725 may not take BECA 425 for credit.

**BECA 735 Aesthetics of Sound (3)**

*Prerequisites:* BECA 230/231 or equivalent, BECA 700 or consent of instructor. For course description, see BECA 435. Paired with BECA 435. Students who have completed BECA 435 may not take BECA 735 for credit.

**BECA 746 Electronic Field Production II (3)**

*Prerequisites:* BECA 546, BECA 700, and consent of instructor. For course description, see BECA 646. Paired with BECA 646. Students who have completed BECA 746 may not take BECA 646 for credit.

**BECA 752 Seminar in Broadcast and Electronic Communication Arts Pedagogy (3)**

*Prerequisite:* BECA 700 or consent of instructor. Process of curricular and instructional preparation for students who wish to teach broadcast and electronic communication arts.

**BECA 770 Media Writing and Performance (3)**

*Prerequisite:* BECA 700 or consent of instructor. Writing and performance for the electronic media; writing scripts for features, persuasive messages, informational programs, and drama; script analysis and development of performance skills for camera and microphone.

**BECA 790 Seminar in New Electronic Communication Technologies (3)**

*Prerequisites:* BECA 700, graduate status, and consent of instructor. Evolving communication technologies: cable television, digital broadcasting, satellite transmission, video telephony, the Internet. Hardware, software, and social integration issues.

**BECA 797 Seminar in Electronic Media Production (3)**

*Prerequisite:* BECA 700 and consent of instructor. Close study of specifies area of audio, visual, or interactive media production. Course combines readings and discussion of production or other theory with applies work in media production practice. May be repeated for a total of 6 units as topics vary.

**BECA 822 Seminar in Media and Society (3)**

*Prerequisite:* BECA 700 or consent of instructor. Social implications of broadcasting; theoretical and methodological issues surrounding electronic media processes and effects; effects of electronic media on cultural and social institutions.

**BECA 852 Directed Experience in Broadcast and Electronic Communication Arts Education (3)**

*Prerequisites:* BECA 700 and consent of graduate major adviser, sponsoring faculty member, and department chair. Directed experience in teaching the broadcast communication arts. Students assist in course preparation and instruction and receive supervision from the instructor in charge.

**BECA 870 Seminar in Television Dramatic Writing (3)**

*Prerequisites:* graduate status and BECA 700 or consent of instructor. Writing the teleplay: premise, character, conflict, dialogue, and structure and how these elements are influenced by television as a unique dramatic medium.

**BECA 894 Creative Work Project (3)**

*Prerequisites:* advancement to candidacy, BECA 897, and consent of instructor and department chair. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.



**BECA 896 Readings for the Written Comprehensive Examination (3)**

*Prerequisites:* completion of the student's academic program and consent of graduate major adviser. Readings and discussion concerning principles, issues, and theories in mass communication research, criticism, aesthetics, and production. Culminates in the written comprehensive examination.

**BECA 897 Research for Thesis and Creative Project Proposals (3)**

*Prerequisites:* completion of student's academic program and consent of graduate coordinator. Preparation of proposal for master's thesis or creative project under supervision of instructor and thesis committee. CR/NC grading only.

**BECA 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the Master of Arts, BECA 897, and consent of instructor and department chair. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**BECA 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser, supervising instructor, and department chair. Problems in broadcast communication arts for graduate students who have demonstrated ability to do independent work. May be repeated for a total of 6 units.

**BUSINESS***Undergraduate Courses***BUS 320 Legal Aspects of Business Transactions (3)**

*Prerequisite:* BUS/ENG 214 recommended. Rights and obligations arising out of common business transactions such as contracts, agency, employment, business organizations, and negotiable instruments. Consideration of the law related to investors, including securities law and the professional and legal responsibilities of accountants.

**BUS 360 Business Communication (3)**

*Prerequisites:* COMM 150 and ENG 214 or equivalent with grades of C- or better and upper division standing. Enrollment priority for Business majors. Written and oral communication including theory, business writing, oral reports, problem-solving, data analysis, use of visual aids in communication, and ethical/legal issues.

**BUS 440 Ethics at Work II: Business (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Ethical theory in the business enterprise from a variety of perspectives. Role of work, co-workers, superiors, and environment.

**BUS 450 Greening of Business (3) [GE]**

*Prerequisites:* ENG 214, COMM 150. Impact of business firms on the natural environment; forces driving businesses to become environmentally sustainable and types of approaches businesses are taking to respond to environmental issues.

**BUS 682 Seminar in the Environment of Business (3)**

*Prerequisites:* MGMT 405 and BUS 360 with grades of C- or better and upper division standing. Evolution of business and its interaction with the political, legal, social, and ethical environments. Effects of environment upon managing the business enterprise.

**BUS 690 Seminar in Business Policy and Strategic Management (3)**

*Prerequisites:* grade of C- or better in BUS 360, FIN 350, DS 412, MKTG 431, MGMT 405, ISYS 363 (ACCT 307); and upper division standing. Capstone seminar in business policy and strategic management. Case studies provide background for organizational and functional problems. Emphasizes international environment. Solutions (oral and written) include implementation and methods of quantifiable evaluations.

**BUS 699 Special Projects in Business (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive problem analysis under the direction of a business faculty member. Open only to upper division students who have demonstrated ability to do independent work. [CSL may be available; consult index for page reference.]

*Graduate Courses***BUS 714 Elements of Business Writing (3)**

*Prerequisites:* classified graduate status in business. For students who do not meet minimum written English proficiency. Integrated basic writing skills with principles of business writing and organizational communication. May not be used to meet master's degree GAP requirements. CR/NC grading only.

**BUS 780 Financial Accounting (3)**

*Prerequisite:* Passing mathematics proficiency test or DS 710. Enrollment priority for graduate students in business, and computing and business. Survey of financial accounting including relevant standards and concepts. Preparation and use of financial statements; measurement and reporting of financial information to external parties.

**BUS 781 Managerial Accounting (3)**

*Prerequisites:* BUS 780 (may be taken concurrently with approval of instructor). Enrollment priority for graduate students in business, and computing and business. Survey of managerial accounting including concepts and techniques. Preparation and use of financial and non-financial information in managerial planning, decisions making and performance measurement.

**BUS 782 Information Systems for Management (3)**

*Prerequisite:* Enrollment priority for graduate students in business, and computing and business. Information systems and their use in business management. Information technology for managers, role of different types of information systems in businesses, common information systems, problem solving, and application development.

**BUS 783 Economics for Managers (3)**

*Prerequisite:* DS 510 or equivalent mathematical literacy; ECON 100 and ECON 101 or equivalent economics literacy. Enrollment priority for graduate students in business, and computing and business. Macroeconomic and microeconomic environments within which businesses operate. Applications of intermediate level economic theory to business operations and management decisions on a local, national, and multinational basis.

**BUS 784 The Political, Social, and Legal Environment of Business (3)**

*Prerequisite:* Enrollment priority for graduate students in business, and computing and business. Contemporary social, political, and legal issues that demonstrate the mutual impacts of economic and non-economic institutions both here and abroad.

**BUS 785 Financial Management (3)**

*Prerequisites:* BUS 780, DS 510 and DS 712. Enrollment priority for graduate students in business, and computing and business. Using valuation as the theme, the course covers the conceptual, analytical, and institutional aspects of financial decision making. Specific topics include valuation models, required rate of return, modern portfolio theory, factor models, capital structure and budgeting, financial and real options.

**BUS 786 Operations Analysis (3)**

*Prerequisites:* DS 710, DS 712, and spreadsheet proficiency. Production management and control with related computer applications: production and distribution planning, inventory control, and demand forecasting. Quantitative analysis. Plus-minus letter grade only.

**BUS 787 Marketing Management (3)**

*Prerequisite:* BUS 783. Enrollment priority for graduate students in business, and computing and business. Introduction to basic marketing concepts, principles, theories and techniques.

**BUS 788 Management Principles and Organizational Behavior (3)**

*Prerequisite:* Enrollment priority for graduate students in business, and computing and business. Management, organization theory, and behavioral analysis applied to conventional management problems in domestic and international environments. [CSL may be available; consult index for page reference.]

**BUS 857 Business Management, Ecology, and Environmental Leadership (3)**

Impact of business organizations on the natural environment. Approaches to effectively respond to environmental issues.

**BUS 859 International Business Negotiating (3)**

*Prerequisites:* six units in SFSU graduate program. Development of intercultural negotiating skills through cases involving protagonists, organizational contexts, and situations. (Cross listed with IBUS 859. May not be repeated under alternate prefix.)

**BUS 867 Graduate Internship in Business (1-3)**

*Prerequisites:* BUS 700 series, consent of instructor, and an internship in business. Analysis of actual experience in a business field. Organization and operation evaluated with respect to management theories. Individual study and conferences with instructor. May be repeated for a total of 3 units.

**BUS 881 Financial and Managerial Accounting (4)**

*Prerequisites:* classified graduate status; admission to off-campus M.B.A. Preparation and use of corporate financial and managerial accounting information. Measurement and reporting of financial statements. Use of managerial accounting information in planning, control, decision making, and cost management.

**BUS 882 Seminar in Advanced Computer Applications and Information Systems for Management (4)**

*Prerequisites:* admission to off-campus M.B.A. program and elementary calculus. Information systems architectures and internet/intranet sites in information technology (IT) strategy, N-tier IT solutions development tools, and project management methodology for IT solutions. In-depth treatment of IT solution specifications, IT architecture development, IT development tools, and IT infrastructure.

**BUS 883 Economics for Managers (4)**

Micro- and macroeconomic analysis for business decisions. Numerical, geometric, and essay applications of intermediate-level economic theory to business operations and management decisions on a local, national, and global basis.

**BUS 884 The Political, Social, and Legal Environment of Business (3)**

Role and impact of business in society. Contemporary social, political, legal, and ethical issues that demonstrate mutual impact of economic and non-economic institutions both domestically and abroad.

**BUS 885 Corporate Financial Management (4)**

*Prerequisites:* BUS 881, BUS 886; admission to off-campus M.B.A. Financial management. Corporate finance: financial statement analysis, valuation, capital budgeting, capital structures, dividend policy, and risk management.

**BUS 886 Seminar in Statistics and Operations Analysis (4)**

*Prerequisites:* admission to off-campus M.B.A. program and elementary calculus. Operations planning and control and related computer applications. Elements of probability and statistics, quality management, inventory control, project management, and demand forecasting. Quantitative analysis and computer applications.

**BUS 887 Strategic Marketing Management (4)**

*Prerequisites:* classified graduate status; admission to off-campus M.B.A. Strategic marketing management: the development, evaluation and implementation of marketing plans for product-markets. Strategic decisions, decisions which have a long-term impact on the organization.

**BUS 888 Managing Organizational Change (4)**

How organizations evolve, how they are structured and designed, and how they function. Provides a basis for the application of practical models to increase organizational effectiveness. Diagnosis of organizational problems, management of change, and influence on organizational structure.

**BUS 890 Culminating Experience in Strategic Management (3)**

*Prerequisite:* advancement to candidacy. Case study analysis as a culminating experience option in fulfillment of the requirements for the master's degree. Strategy formulation, implementation, techniques and decision-making in the context of the economic, social, political and competitive global environment.

**BUS 895 Research Project in Business (3)**

*Prerequisites:* minimum 12 units of 800-level business course and approval of Business graduate office. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**BUS 898 Master's Thesis (3)**

*Prerequisites:* minimum 12 units at the 800 level and approval of Business graduate studies office. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**BUS 899 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive study of a particular problem under the direction of a business faculty member. Open only to graduate students of demonstrated ability to do independent work. [CSL may be available; consult index for page reference.]

**CENTER FOR HUMANISTIC STUDIES***Undergraduate Courses***CHS 350 Credit by Evaluation for Experiential Learning (3-6)**

Preparation of a portfolio documenting prior learning experiences and translating the learning into academic format. Individual work done under the supervision of a faculty member. May be repeated for credit.

**CHS 430 Selected Topics in Humanistic Studies (3)**

*Topic to be specified in Class Schedule.* May be repeated when topics vary.

**CHS 514 Preparation for Graduate Writing (3)**

*Prerequisites:* graduate status; must have taken Graduate Essay Test (GET). Designed for students who need to increase their writing proficiency in preparation for graduate-level work. May not be used to meet master's degree GAP requirements. CR/NC grading only.

**CHS 699 Special Study (1-3)**

Individual supervision of independent work on a particular interdisciplinary problem or subject in the humanities chosen by the student.

**CHEMISTRY***Undergraduate Courses***CHEM 100 Preparation for Chemistry (3)**

Elementary concepts of chemistry. Development of skills in applying mathematics to chemistry concepts. Preparation for CHEM 111 or 115. CR/NC grading only.

**CHEM 101 Survey of Chemistry (3) [GE]**

*Prerequisite:* 50 or higher on ELM or exemption, or C or better in MATH 70. High school chemistry recommended. Principles of general and organic chemistry and biochemistry for pre-nursing, exercise science or health science majors. Not for CHEM 115 preparation.

**CHEM 102 Survey of Chemistry Laboratory (1) [GE]**

Laboratory to accompany or follow CHEM 101. Extra fee required.

**CHEM 107 Exploration of the Chemistry of Plants (3) [GE]**

Chemistry of plants. Plant nutrients, soils, photosynthesis. Primary and secondary plant metabolites. Plant attractants. Plant defenses. Plants and humans: foods from plants, toxic plants, medicinal plants.

**CHEM 108 Exploration of the Chemistry of Plants Laboratory (1) [GE]**

*Must be taken concurrently with CHEM 107.* Water quality; soil composition; molecular modeling; and isolation and analysis of plant pigments, odors, and defensive compounds. Laboratory.

**CHEM 109 Fundamentals of Food Chemistry: Natural Constituents and Additives (3) [GE]**

Chemical composition of foods including sugars, starches, fats, and oils; protein, vitamins, and minerals; additives used in food; government role in food processing and distribution.

**CHEM 110 Fundamentals of Food Chemistry: Natural Constituents and Additives Laboratory (1) [GE]**

*Must be taken concurrently with CHEM 109.* Laboratory to accompany CHEM 109. Hands-on experience in assessing food constituents using modern chemical methods and techniques including chemical instrumentation.

**CHEM 115 General Chemistry I: Essential Concepts of Chemistry (5) [GE]**

*Prerequisite:* 550 or above on ELM or approved exemption, or C in MATH 70 and satisfactory score on chemistry placement exam. Essential concepts of atomic properties, atomic interactions, reaction chemistry, stoichiometry, thermodynamics, chemical kinetics, and equilibria. (Charges for missing or damaged laboratory locker items apply.) Classwork, 3 units; laboratory, 2 units. Extra fee required.

**CHEM 130 General Organic Chemistry (3)**

*Prerequisite:* CHEM 115 with a grade of C or better. Common organic compounds and basic principles. For laboratory, see CHEM 234 (formerly CHEM 334). Students who have completed CHEM 233 (formerly CHEM 333) may not take CHEM 130 later for credit. Cannot be used for the chemistry or biochemistry degrees.

**CHEM 215 General Chemistry II: Quantitative Applications of Chemistry Concepts (3)**

*Prerequisites:* C or better in CHEM 115; C- or better in PHYS 111 or 220, and in PHYS 121 or MATH 226. Quantitative aspects of nuclear, coordination, and quantum chemistry; kinetics; equilibria (acid-base, solubility and buffer); thermodynamics; electrochemistry; spectroscopy; states of matter.

**CHEM 216 General Chemistry II Laboratory: Quantitative Applications of Chemistry Concepts (2)**

*Prerequisite:* C or better in CHEM 215 or concurrent enrollment. Determination of thermodynamic quantities; rate laws; acid dissociation constants; preparation and analysis of buffer solutions; synthesis and analysis of a molecular complex. (Charges for missing or damaged laboratory locker items apply.) Laboratory. Extra fee required.

**CHEM 233 Organic Chemistry I (3)**

*Prerequisites:* CHEM 115 with grade of C or better. Principles of organic chemistry. Primarily for students majoring in chemistry and biochemistry. [Formerly CHEM 333. CHEM 233 is not open to students who have completed CHEM 333.]

**CHEM 234 Organic Chemistry I Laboratory (2)**

*Prerequisite:* CHEM 233 or 130 with grade of C or better, or concurrent enrollment in either. Techniques and selected experiments in organic chemistry. (Charges for missing or damaged laboratory locker items apply.) Classwork, 1 unit; laboratory, 1 unit. Extra fee required. [Formerly CHEM 334. CHEM 234 is not open to students who have completed CHEM 334.]

**CHEM 251 Mathematics and Physics for Chemistry (3)**

*Prerequisites:* MATH 226, MATH 227; PHYS 220, PHYS 222, PHYS 230, and PHYS 232, or consent of instructor. Integrated mathematics and physics for physical chemistry, fluids, wave motion, or thermodynamics, partial derivatives, multiple integrals, introductory vector calculus, introductory differential equations.

**CHEM 300 General Physical Chemistry I (3)**

*Prerequisites:* CHEM 321 (or CHEM 320), CHEM 335, MATH 227, and PHYS 121 (or PHYS 240), each with grade of C or better. CHEM 340 or CHEM 349 recommended. Chemical thermodynamics; kinetic theory of gases; properties of solutions. Designed for students in biology, preprofessional curricula, biochemistry and chemistry majors.

**CHEM 301 General Physical Chemistry II (3)**

*Prerequisite:* CHEM 300 with a grade of C or better or consent of instructor. Quantum mechanics, spectroscopy, biophysical spectroscopy, intermolecular forces, macromolecules, and statistical thermodynamics. (Concurrent enrollment in CHEM 340 or CHEM 349.)

**CHEM 321 Quantitative Chemical Analysis (3)**

*Prerequisites:* CHEM 215 and 216, with grades of C or better. Foundation course in analytical chemistry with focus on quantitative analysis. Topics include uncertainties, statistics, equilibria, titrimetric methods, electrochemistry and potentiometry, molecular and atomic spectroscopy, mass spectroscopy, and chromatography. Plus-minus letter grade only. [Formerly CHEM 320]

**CHEM 322 Quantitative Chemical Analysis Laboratory (2)**

*Prerequisite:* concurrent enrollment in CHEM 321, or grade of C or better in CHEM 321. Practical experience in performing accurate and precise measurements of chemical species in a variety of real world samples using gravimetric, titrimetric, potentiometric, spectroscopic, and chromatographic methods. Students who have taken CHEM 320 cannot take CHEM 321/322 for credit. Plus-minus letter grade only.

**CHEM 325 Inorganic Chemistry (3)**

*Prerequisites:* CHEM 215 and CHEM 335 with grades of C or better. Theories of chemical bonding and their application to inorganic systems with emphasis on transition metal complexes. Molecular symmetry; acid/base, redox and solid-state chemistry; introduction to organometallic and bioinorganic chemistry. (Formerly CHEM 425.)

**CHEM 327 Practical GC and HPLC (4)**

*Prerequisites:* CHEM 320, or CHEM 321 and 322, and CHEM 334 with grades of C or better. Theory, hardware and experience in GC and HPLC separations. Emphasis on practical skills and common applications in natural products, environmental, and pharmaceutical analyses. Students who have taken CHEM 377 cannot take CHEM 327 for credit. Plus-minus letter grade only.

**CHEM 335 Organic Chemistry II (3)**

*Prerequisite:* CHEM 233 (formerly CHEM 333) with grade of C or better. Continuation of CHEM 333.

**CHEM 336 Organic Chemistry II Laboratory (2)**

*Prerequisites:* CHEM 234 (formerly CHEM 334) with grade of C or better; CHEM 335 with grade of C or better or concurrent enrollment. Techniques and experiments in organic synthesis, isolation, purification and characterization. Intended for science majors. Not open to students who have completed CHEM 377. Classwork, 1 unit; laboratory, 1 unit. Extra fee required.

**CHEM 338 Organic Chemistry II: Laboratory Honors (3)**

*Prerequisites:* CHEM 233 (formerly CHEM 333) and CHEM 234 (formerly CHEM 334), each with grade of B or better. Must be taken concurrently with CHEM 335. Substitute for CHEM 336. Experiments in organic synthesis and analysis plus a research project directed by faculty. (Charges for missing or damaged laboratory locker items apply.) Classwork, one unit; laboratory, two units. Extra fee required.

**CHEM 340 Biochemistry I (3)**

*Prerequisites:* CHEM 215, CHEM 233 (formerly CHEM 333), and CHEM 335 with grades of C or better. Protein structure and function; carbohydrate metabolism; enzyme kinetics and thermodynamics; electron transport chain.

**CHEM 341 Biochemistry II (3)**

*Prerequisite:* CHEM 340 with a grade of C or better. Biosynthesis and degradation of lipids, amino acids, and nucleotides; protein synthesis, folding and degradation; DNA and RNA structure; DNA replication and transcription.

**CHEM 343 Biochemistry I Laboratory (3)**

*Prerequisites:* CHEM 234 (formerly CHEM 334) with grade of C or better; CHEM 321 recommended; concurrent enrollment with CHEM 340 or CHEM 349 or consent of instructor. Chemical and enzymatic experiments involving proteins, carbohydrates, and nucleic acids with emphasis on enzyme kinetics. Utilization of standard and modern biochemical techniques. (Charges for missing or damaged laboratory locker items apply.) Classwork, 1 unit; laboratory, 2 units. Extra fee required.

**CHEM 349 General Biochemistry (3)**

*Prerequisites:* CHEM 115 and CHEM 130 or 335 with a grade of C or better, or consent of instructor. Survey of major areas in biochemistry including enzymology, bioenergetics, and carbohydrate, lipid and nucleic acid metabolism. Students who have completed CHEM 340 may not take CHEM 349 for credit. Not for biochemistry or cell and molecular biology majors.

**CHEM 351 Physical Chemistry I: Thermodynamics and Kinetics (3)**

*Prerequisites:* CHEM 215, CHEM 233 (formerly CHEM 333), PHYS 230, PHYS 232, CHEM 251 (or MATH 228 and PHYS 240), each with grade of C or better. Thermodynamics and kinetic theory.

**CHEM 353 Physical Chemistry II: Quantum Chemistry and Spectroscopy (3)**

*Prerequisites:* CHEM 321 and CHEM 322 (or CHEM 320), and CHEM 233 (formerly CHEM 333), PHYS 230, PHYS 232, CHEM 251 (or MATH 228 and PHYS 240), each with grade of C or better. Quantum chemistry, spectroscopy of atoms and molecules, statistical thermodynamics. Continuation of CHEM 351.

**CHEM 370 Computer Applications in Chemistry and Biochemistry (3)**

*Prerequisite:* CHEM 321 (formerly CHEM 320) and CHEM 233 (formerly CHEM 333), each with grade of C or better. Data acquisition, manipulation, and presentation with emphasis on software used in chemistry and biochemistry laboratories. Computational chemistry and molecular visualization software for small and large molecules. Development of interactive molecular visualization web pages. Classwork, 2 units; laboratory, 1 unit.

**CHEM 380 Chemistry Behind Environmental Pollution (3) [GE]**

*Prerequisite:* CHEM 115 with grade of C- or better. Traditional and contemporary topics in environmental chemistry. Understanding and appreciation of various chemical processes and principles underlying environmental problems facing society. (Cross listed with ENVS 380. May not be repeated under alternate prefix.)

**CHEM 390 Contemporary Chemistry and Biochemistry Research - GWAR (3)**

*Prerequisites:* Grade of C or better in ENG 214 or ENG 310, and CHEM 321 or CHEM 335; junior level standing. Improve skills in written and oral communication with an emphasis on the communication skills expected of chemists and biochemists in their professional activities. Classwork, 2 units; laboratory, 1 unit. (ABC/NC grading only)

**CHEM 399 Careers in Chemistry and Biochemistry (1)**

*Prerequisite:* senior standing. Discussion of the full spectrum of careers in chemistry and biochemistry: career counseling, resume and interview guidance and strategies, outside speakers from education and industry

**CHEM 420 Environmental Analysis (3)**

*Prerequisites:* CHEM 321 and CHEM 322, or CHEM 320, each with grade of C or better. Practical analysis of real world samples and environmental pollutants. Statistics, QA/QC, heavy metal analysis via atomic spectroscopy, and organic pollutant analysis via GC/MS. (Charges for missing or damaged laboratory locker items apply.) Classwork, 2 units; laboratory, 1 unit. Extra fee required.

**CHEM 422 Instrumental Analysis (4)**

*Prerequisites:* CHEM 321 and CHEM 322, or CHEM 320, each with grade of C or better. Instrumental methods for chemical and biochemical analysis including basic electronics, molecular and atomic spectroscopy, IR and Raman spectroscopy, mass spectrometry, and chromatography. (Charges for missing or damaged laboratory locker items apply.) Classwork, 2 units; laboratory, 2 units. Extra fee required.

**CHEM 426 Advanced Inorganic Chemistry Laboratory (2)**

*Prerequisites:* CHEM 422 and 425 with grades of C or better. Modern techniques in inorganic chemistry with an emphasis on synthesis, characterization, and reactivity of metals in a variety of materials including biological and environmental samples. (Charges for missing or damaged laboratory locker items apply.) Classwork, 1 unit; laboratory, 1 unit. Extra fee required.

**CHEM 433 Advanced Organic Chemistry (3)**

*Prerequisite:* CHEM 335 with a grade of C or better. Concurrent registration in or completion of CHEM 301 or 353 is required. Theoretical aspects of organic chemistry, molecular structure, and reaction mechanisms.

**CHEM 443 Biophysical Chemistry Laboratory (4)**

*Prerequisites:* CHEM 343 with grade of C or better; prior or concurrent enrollment in CHEM 301 or 353. Experiments using modern techniques in biochemistry, bioinformatics, molecular biology and biophysics for the study of biological macromolecules. (Charges for missing or damaged laboratory locker items apply.) Classwork, 2 units; laboratory, 2 units. Extra fee required. Plus-minus letter grade only.

**CHEM 451 Experimental Physical Chemistry (2)**

*Prerequisites:* CHEM 353 or 301, CHEM 351 (may be taken concurrently), with grades of C or higher, or consent of instructor. Emphasis on molecular spectroscopy, thermodynamics, kinetics, electrochemistry, applications of computational chemistry, and error analysis. 2 laboratory periods per week. Plus-minus letter grade only.

**CHEM 470 Research (3)**

*Prerequisites:* one year each of general and organic chemistry and consent of instructor and faculty research advisor. Intended for motivated students interested in independent research. Requires 6-9 hours of research each week, lecture attendance, formal poster presentation, and written report. May be repeated for a total of 6 units.

**CHEM 640 Advanced Topics in Biochemistry (1-3)**

*Prerequisite:* CHEM 340 or 349 with a grade of C or better. Topic to be specified in Class Schedule. May be repeated as topics vary.

**CHEM 641 Advanced Topics in Chemistry (1-3)**

*Prerequisite:* upper division standing. Topic to be specified in Class Schedule. May be repeated for a total of 9 units as topics vary.

**CHEM 645 Research Trends in Chemistry and Biochemistry (3)**

*Prerequisite:* GPA of 3.0 or better, CHEM 340 and one semester of physical chemistry. Self-directed learning experience for undergraduates in modern research topics in chemistry and biochemistry.

**CHEM 680 Chemical Oceanography (3)**

*Prerequisite:* CHEM 215 or equivalent. Investigation of the composition and dynamics of the ocean through chemistry.

**CHEM 693 Cooperative Education Program (6-12)**

*Prerequisite:* consent of instructor. Supervised chemistry laboratory employment. Enrollment by prior arrangement with the employer and department. Final written report is required. A maximum of 2 units (1 unit for each semester) may be used to meet elective requirements in chemistry major programs. May be repeated for up to 24 units. CR/NC grading only.

**CHEM 694 Cooperative Education in Chemistry (1)**

*Prerequisite:* upper division standing or consent of instructor. Supervised chemistry laboratory experience in industry. Enrollment by prior arrangement with supervising faculty member and industry sponsor. See department adviser for details. A final written report is required. May be repeated for a total of three units for credit.

**CHEM 699 Special Study in Chemistry (1-3)**

*Prerequisites:* consent of the department and the instructor concerned. Laboratory or library research work focused on chemistry and biochemistry problems directed by a department faculty. For advanced, superior students majoring or minoring in chemistry or biochemistry. Final written report required.

*Graduate Courses***CHEM 741 Electron Microscopy (4)**

*Prerequisite:* graduate or senior standing, and consent of instructor. Cross listed with BIOL/GEOL 741. For course description, see BIOL 741. (May not be repeated under an alternate prefix.)

**CHEM 800 Special Topics in Chemistry (1-3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**CHEM 820 NMR Applications and Techniques (3)**

*Prerequisites:* classified graduate standing in chemistry and CHEM 452 with a grade of C or better, or consent of instructor. FT NMR concepts and operating techniques; 1D and 2D experiments; relaxation and dynamics. Spectral interpretation. Classwork, 2 units; laboratory, 1 unit.

**CHEM 821 Mass Spectrometry - Principles and Practice (3)**

*Prerequisite:* classified graduate standing in chemistry or consent of instructor. Fundamental principles and modern practice of mass spectrometry, instrumentation (mass analyzers, ionization modes, sample introduction systems) and applications (qualitative and quantitative analysis, environmental and biomedical applications).

**CHEM 832 Organic Synthesis (3)**

*Prerequisite:* classified graduate standing in chemistry or consent of instructor. Problems relating to current organic synthetic methods. Synthesis and reactions of the major classes of mono- and polyfunctional compounds.

**CHEM 834 Organic Spectroscopic Methods (3)**

*Prerequisite:* classified graduate standing in chemistry and CHEM 301 or 353, or consent of instructor. Relations between molecular structure and spectroscopic behavior. Mass spectrometry, infrared, electronic and magnetic resonance spectroscopy.

**CHEM 841 Enzymology (3)**

*Prerequisites:* classified graduate standing in chemistry and CHEM 341 and CHEM 301 or 353, or consent of instructor. The relationships between enzyme structure and catalytic activity, including enzyme kinetics and mechanisms.

**CHEM 842 Bioorganic and Medicinal Chemistry (3)**

*Prerequisite:* classified graduate status in chemistry or consent of instructor. Molecular recognition, enzymatic reaction mechanisms, catalytic antibodies/polymers, enzymes in organic synthesis, pharmacodynamics, and drug action, drug design for pharmacokinetic problems.

**CHEM 850 Valency and Spectroscopy (3)**

*Prerequisite:* classified graduate standing in chemistry and passing score on the ACS diagnostic examination in quantum chemistry, or consent of instructor. Quantum mechanics of atomic and molecular structure using computers and group theory. Elementary microwave, infrared, optical, and magnetic resonance spectroscopy.

**CHEM 851 Biochemical Spectroscopy (3)**

*Prerequisites:* classified graduate standing in chemistry and passing ACS diagnostic examination in quantum chemistry, a biochemistry course, or consent of instructor. Quantum chemistry elements. Principles, techniques, and biochemical applications of spectroscopy.

**CHEM 880 Seminar (3)**

*Prerequisite:* classified graduate standing in chemistry or consent of instructor. Exploration of current areas and methods of chemical research. Oral presentations and scientific writing. Should be taken during the first year of graduate work.

**CHEM 897 Research (1-9)**

*Prerequisites:* classified graduate standing in chemistry and CHEM 880 (may be taken concurrently), or consent of instructor. Independent and original laboratory, computational, or theoretical research under faculty supervision. Maximum of 9 units may be applied toward graduation.

**CHEM 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the Master of Science in Chemistry. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**CHILD AND ADOLESCENT DEVELOPMENT***Undergraduate Courses***CAD 120 Child Development, Social Justice, and Academic Success (3)**

*Prerequisite:* enrollment in CAD Metro program; restricted to freshmen only. Child and adolescent development and social justice.

**CAD 210 Introduction to Applied Child and Adolescent Development (3)**

*Prerequisites:* ENG 114 or equivalent; CAD major; or undeclared with an interest in CAD. Growth and development of children from prenatal stage through adolescence and its relevant application in work with children and families; physical, cognitive, linguistic, social, moral and emotional aspects of development. (Plus-minus letter grade only.)

**CAD 215 Foundations in Early Childhood (3)**

*Prerequisite:* declared CAD Early Childhood major. Supervised experience in high quality licensed center. Designed to provide experiential and developmental knowledge of young children. (Plus-minus letter grade only.)

**CAD 260 Children, Families, and Community: An Ecological Perspective (3)**

*Prerequisite:* ENG 214 or equivalent; CAD major or undeclared with an interest in CAD, or consent of instructor. Understanding children, families, and community from an ecological perspective. Emphasis on contribution of basic and applied research to development in relation to family and community. (formerly CAD 360.)

**CAD 300 Professional Roles and Careers in Child and Adolescent Development (3)**

*Prerequisites:* CFS 320, PSY 330, or equivalent or consent of instructor. Overview of child and adolescent development and careers related to children, youth, and families.

**CAD 325 Jumpstart: Mentoring Young Children (3)**

*Prerequisites:* enrollment in Jumpstart program and consent of instructor. Models of early childhood intervention are explored, with emphasis on Jumpstart For Young Children model. Topics include: developmentally appropriate child-centered activities to enhance learning, positive adult-child interactions, family involvement.

**CAD 326 Jumpstart: Developing Literacy Skills in Young Children (3)**

*Prerequisite:* enrollment in Jumpstart and consent of instructor. Training and experience for students working with young children in preschool settings in the development of literacy activities for young children and their families.

**CAD 400 Community Youth Development (3)**

*Prerequisites:* CAD major, ENG 214 or equivalent, CAD 410, or consent of instructor. Introduction to youth and community development, emphasizing community supports and opportunities for healthy youth development. Theories and research used to construct a framework for youth development; program models and legislation examined. Ten hours of an off-campus field observation of a youth/community program is required. (Letter grade only.)

**CAD 410 Applied Child and Youth Development (3)**

*Prerequisites:* declared CAD major; ENG 214, CAD 260, and CAD 210 or equivalents, or consent of instructor. Understanding of child and adolescent development based upon research and particularly its application to practice. Current and emerging issues associated with the promotion of child and youth development will be reviewed. (Plus-minus letter grade only.)

**CAD 430 Experiential and Activity Based Learning Seminar (2)**

*Prerequisites:* declared CAD major; CAD 400, CAD 415, or consent of instructor; concurrent enrollment with CAD 431. Development and implementation of an experiential learning activity for youth; incorporation of foundations of the youth development model. Plus-minus letter grade only.

**CAD 431 Experiential and Activity Based Learning Practice (2)**

*Prerequisites:* declared CAD major; CAD 400, CAD 415, or consent of instructor; concurrent enrollment with CAD 430. 125 hours of supervised youth work in the community to practice the development, implementation of experiential and activity based learning opportunities. Plus-minus letter grade only.

**CAD 450 Understanding and working with Diverse Families (3)**

*Prerequisites:* declared CAD major; ENG 214, CAD 260, and CAD 210 or equivalents, or consent of instructor. Drawing on a variety of disciplines, examination of experiences of families; including family diversity, theories on families, and challenges families face; application in the areas of family engagement, involvement, and support. (Plus-minus letter grade only.)

**CAD 460 Globalization and Family Relations (3)**

*Prerequisite:* CAD major; ENG 214; CAD 210 and CAD 260, or equivalents, or consent of instructor. Examination of the concepts of globalization, migration, and transnationalism to understand families and family relations within the larger context of cultural and social influences. (Plus-minus letter grading only.)

**CAD 500 GW Action Research Methods in Child and Adolescent Development - GWAR (3)**

*Prerequisites:* CAD major; ENG 214 and CAD 410 or equivalents with grades of C or better, or consent of instructor. Introduces students to action research, with a research approach, design and methodology to develop a systematic plan for action, with a goal of resolving specific social problems that affect children, youth, and families. (ABC/NC grading only.)

**CAD 510 Adult Supervision and Leadership in Early Childhood Programs (3)**

*Prerequisites:* CAD major; ENG 214; CAD 210 and CAD 260 or equivalents, or consent of instructor. Exploration of adult supervision, administration and leadership in early childhood programs from theoretical and personal perspectives. (Plus-minus letter grade only.)

**CAD 520 Demography of Children, Adolescents, and Their Families (3)**

*Prerequisite:* CAD major; ENG 214; CAD 210 or CAD 260 or equivalents, or consent of instructor. Understand, interpret, and apply univariate data to support various child and adolescent issues. Emphasis on population level analysis including birth and death rates. (Plus-minus letter grading only.)

**CAD 540 Ethics and Principles in Serving Youth (3)**

*Prerequisites:* declared CAD major; CAD 400, or consent of instructor. Understanding of practice and service provision, key ethical issues, the values that underpin them, and how youth work can be professionally conducted; ethics within the framework of ecological model. Plus-minus letter grade only.

**CAD 600 Child and Adolescent Development Internship Seminar (2)**

*Prerequisites:* CAD major in senior standing, minimum 2.0 GPA in major, minimum grade of C- in each course in major. Must be taken concurrently with CAD 601. Capstone course. Application of theoretical concepts in cross-disciplinary communication and collaboration, leadership, interprofessional program development, and outcomes-based evaluations.

**CAD 601 Child and Adolescent Development Internship (2)**

*Prerequisites:* consent of instructor; must be taken concurrently with CAD 600. Supervised experience in educational institutions, health and human service agencies, and organizations focusing on issues related to children, youth, and families. CR/NC Grading only.

**CAD 610 Early Childhood Internship Seminar (1)**

*Prerequisites:* formal department approval, 150 hours documented in a licensed center; minimum overall GPA of 2.0, concurrent enrollment with CAD 611; restricted to CAD major with Early Childhood concentration. Preparation for professional employment in organizations that serve young children and their families; discussion of issues with peers, reflection of initial classroom practices, identification of teaching strengths and weaknesses, and enhancement of own professional development. Plus-minus letter grade only.

**CAD 611 Early Childhood Internship (2)**

*Prerequisites:* formal department approval, 150 hours documented in a licensed center; minimum overall GPA of 2.0, concurrent enrollment with CAD 610; restricted to CAD major with Early Childhood concentration. Preparation for professional employment in organizations that serve young children and their families; evaluation based on growth and development within standards, competencies and practices to best support development outcomes of children and management of classroom environments. CR/NC grading only.

**CAD 625 Children, Youth, and Public Policy (3)**

*Prerequisites:* declared CAD major; ENG 214; CAD 210 and CAD 260 or equivalents, or consent of instructor. Overview of how public policies for services for children and youth are developed, adopted, and implemented; policy process and historical and current policy issues in areas of education and child care. (Plus-minus letter grading; CR/NC not allowed.)

**CAD 630 Youth Work and Out of School Time Internship Seminar (1)**

*Prerequisites:* formal department approval, CAD 430, CAD 431, minimum overall GPA of 2.0, concurrent enrollment with CAD 631; restricted to CAD major with Youth concentration. Reflection on CAD 631 experience; sharing experiences; enhancing tools to promote professional development. Plus-minus letter grade only.

**CAD 631 Youth Work and Out of School Time Internship (3)**

*Prerequisites:* formal department approval, CAD 430, CAD 431, minimum overall GPA of 2.0, concurrent enrollment with CAD 630; restricted to CAD major with Youth concentration. 175 hours of supervised youth work in the community. The experience will be guided by measurable goals that are relevant to the community site and students' aspiration. Plus-minus letter grade only.

**CAD 640 Policy, Advocacy, and Systems Capstone Experience (4)**

*Prerequisites:* formal department approval, minimum overall GPA of 2.0; restricted to CAD major with Policy, Advocacy, and System concentration. Synthesize, integrate, and apply the knowledge students have gained during their previous coursework in the major. Learning experiences include a community service learning volunteer placement and completion of an online portfolio of academic work. Plus-minus letter grade only.

**CAD 650 Child Advocacy (3)**

*Prerequisite:* upper division standing; ENG 214 or equivalent; CFS 320/CAD 360; PSY 330/431. Effective advocacy for children in a variety of settings: organizations, communities, human services systems, regional government, and legislatures. Strategies learned in class will be applied to real-life issues in a community service learning component. [CSL may be available; consult index for page reference.]

**CAD 680 International Field Study in Child and Adolescent Development (3)**

*Prerequisite:* upper division standing or consent of instructor. Comparison of child development programs and settings in international venues with that of the U.S. Involves travel as a group for 2 to 3 weeks to selected countries outside the U.S. May be repeated for a total of 6 units.

**CAD 685 Projects in the Teaching of CAD (1-4)**

*Prerequisites:* consent of instructor; grade of B+ or better in course assisting. Instructional aides have opportunity to increase knowledge of course topic and understanding of teaching and learning. Provide assistance to students in class activities. (May be repeated for a total of 4 units.)

**CAD 697 Topics in Child and Adolescent Development (1-3)**

*Prerequisite:* upper division standing or consent of instructor. Topic to be specified in Class Schedule. Intended for students who have completed some course work in the area of study. May be repeated when topics vary.

**CAD 699 Special Study (1-4)**

*Prerequisites:* upper division standing, consent of supervising instructor, major adviser, and CAD program coordinator. An intensive study of a particular issue in child and adolescent development selected by the student. Enrollment by petition. May be repeated for a total of 6 units.

**CHINESE**

All upper division courses are conducted in Chinese, unless otherwise indicated. Page references for the Department of Foreign Languages and Chinese statements can be found in the Index.

**Undergraduate Courses**

Entering students with prior knowledge of Chinese will be given a placement test. Contact program faculty for details.

**CHIN 101 First Semester Chinese (5) [GE]**

Understanding, speaking, reading, and writing modern Mandarin Chinese at the elementary level. Emphasis on the spoken language. Laboratory attendance required. (Page reference for the Department of Foreign Languages statement can be found in the Index.)

**CHIN 102 Second Semester Chinese (5) [GE]**

*Prerequisite:* CHIN 101 or consent of instructor. Further study of elementary Mandarin Chinese. Laboratory attendance required.

**CHIN 103 Third Semester Chinese (5) [GE]**

*Prerequisite:* CHIN 102 or consent of instructor. Understanding, speaking, reading, and writing modern Mandarin Chinese at the low-intermediate level. Laboratory attendance required.

**CHIN 175 Flagship Preparation I (1)**

*Prerequisite:* concurrent enrollment in CHIN 103 and consent of instructor. Augments CHIN 103 for preparation for the Chinese Flagship Program. Focus on writing; practice with traditional and simplified Chinese characters, composition, and use of electronic media for Chinese.

**CHIN 250 Intermediate Chinese (3) [GE]**

*Prerequisites:* CHIN 103 or consent of instructor. Balanced focus on spoken and written Mandarin Chinese. Developing students' oral fluency, expanding vocabulary, correcting pronunciation. Improving skills using basic texts written in Chinese characters and writing sentences in characters. Laboratory attendance required.

**CHIN 275 Flagship Preparation II (2)**

*Prerequisite:* concurrent enrollment in CHIN 250 and consent of instructor. Augments CHIN 250 for preparation for the Chinese Flagship Program. Focus on writing; practice with traditional and simplified Chinese characters, composition, and use of electronic media for Chinese.

**CHIN 311 Conversation and Reading (3) [GE]**

*Prerequisites:* CHIN 250 or consent of instructor. Developing proficiency in spoken Mandarin and written Chinese. Review of basic sentence patterns, vocabulary expansion, and acquisition of Chinese characters.

**CHIN 312 Speech and Writing (3) [GE]**

*Prerequisites:* CHIN 311 or consent of instructor. Developing proficiency in spoken Mandarin and written Chinese. Vocabulary expansion, acquisition, and retention of Chinese characters; speaking and writing skills in interactive context.

**CHIN 375 Introduction to Academic Prose (3)**

*Prerequisite:* intermediate Mandarin and acceptance to Flagship or permission of Director. Training in the four skills (listening, speaking, reading, and writing) and three modes (interpersonal, interpretive, and presentational), using materials from the humanities, social sciences, and professional disciplines.

**CHIN 401 Advanced Chinese (3) [GE]**

*Prerequisites:* CHIN 311 and 312 or consent of instructor. Developing Chinese proficiency at advanced level: vocabulary expansion, acquisition, and retention of Chinese characters in both full and simplified forms; communicative competence in four skills (listening, speaking, reading, and writing).

**CHIN 411 Media Chinese (3) [GE]**

*Prerequisite:* CHIN 311 and 312 or consent of instructor. Mandarin as it is used in various genres on radio/television and in newspapers/magazines; news reports and articles, editorials, interviews, and advertisements.

**CHIN 475 Flagship Chinese I (3)**

*Prerequisite:* intermediate level Mandarin Chinese skills and acceptance to Flagship Program or permission of its Director. Concurrent enrollment in a Flagship Content Area Course is required. Intermediate to advanced training in all four skills and three modes of language.

**CHIN 476 Flagship Chinese II (3)**

*Prerequisite:* intermediate level Mandarin Chinese skills and acceptance to Flagship Program or permission of its Director. Concurrent enrollment in a Flagship Content Area Course is required. Continuation of focus on intermediate to advanced training in all four skills and three modes of language.

**CHIN 501 Introduction to Classical Chinese (3) [GE]**

*Prerequisite:* CHIN 312 (may be taken concurrently) or consent of instructor. Stylistic and structural characteristics of classical Chinese; problems of interpretation; introduction to literary genres in cultural context.

**CHIN 507 Traditional Chinese Culture (3) [GE]**

*Prerequisite:* CHIN 401 (may be taken concurrently) or consent of instructor. Highlights of the development of Chinese culture from antiquity to the 19th century. Selected readings, films.

**CHIN 521 Chinese Modern Fiction (3) [GE]**

*Prerequisite:* CHIN 401 or consent of instructor. Major authors from the May Fourth Movement and subsequent periods.

**CHIN 525 Chinese Applied Linguistics (3) [GE]**

*Prerequisite:* CHIN 311 or consent of instructor. Application of modern descriptive linguistics to the analysis of phonological, morphological, and syntactic structures of Mandarin.

**CHIN 530 Oratory and Performance in Chinese (3) [GE]**

*Prerequisite:* CHIN 312 or consent of instructor. Intensive training or oral/aural skills in standard Mandarin (putonghua/guoyu) at the high intermediate to advanced levels, through preparation and participation in oratory and performance activities.

**CHIN 537 The Chinese Language and Modern China (3)**

*Prerequisite:* CHIN 312 or consent of instructor. Introduction to the linguistic structure, historical development, and present state of Modern Standard Chinese; its relationship to the major Chinese dialect families; aspects of Chinese sociolinguistics and pragmatics.

**CHIN 580 Topics in Chinese Language and Literature (3) [GE]**

*Prerequisite:* varies according to topic. Topic to be specified in Class Schedule. May be repeated when topics vary.

**CHIN 581 Translation (3) [GE]**

*Prerequisite:* CHIN 312 or consent of instructor. Translation theory and techniques used in linguistic transfer between English and Chinese. Paired with CHIN 881. Students who have completed CHIN 881 may not take CHIN 581 for credit.

**CHIN 600 Topics in Chinese Language, Literature, and Culture in English (3)**

*Prerequisite:* ENG 214 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**CHIN 601 The Poetic Tradition (3)**

*Prerequisite:* ENG 214 or consent of instructor. Major Chinese poets from antiquity to late imperial times, discussed in cultural context. (Paired with CHIN 801. Students who have completed 801 may not take 601 for credit.) [Taught in English.]

**CHIN 602 The Narrative Tradition in English (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Chinese literary tradition, ranging from philosophical essays, historical writings, fiction and drama, from 500 B.C. to novels of late 19th Century. Paired with CHIN 802. Students who have completed 802 may not take 602 for credit. [Taught in English.]

**CHIN 699 Special Study (1-3)**

*Prerequisites:* consent of department chair and instructor. Written projects requiring critical analysis and interpretation of literary, linguistic, or pedagogical problems. Open only to undergraduate students who have demonstrated ability to do independent work.

*Graduate Courses***CHIN 801 The Poetic Tradition (3)**

*Prerequisite:* admission to Chinese M.A. program or consent of instructor. For description, see CHIN 601. (Paired with CHIN 601. Students who have completed CHIN 601 may not take CHIN 801 for credit.)

**CHIN 802 The Narrative Tradition (3)**

*Prerequisite:* admission to Chinese M.A. program or consent of instructor. Paired with CHIN 602. For description see CHIN 602. 802 students read materials in Chinese, and have additional requirements. Students who have completed CHIN 602 may not take CHIN 802 for credit.

**CHIN 821 Modern Chinese Literature (3)**

*Prerequisite:* admission to Chinese program or consent of instructor. Readings by major authors from the May Fourth Movement to the present, as well as selections from secondary scholarship.

**CHIN 822 Classical Chinese Literature (3)**

*Prerequisite:* admission to Chinese program or consent of instructor. Classical philosophical, historical, and belletristic writings.

**CHIN 824 Testing & Assessment in Teaching/Learning Chinese as a Second Language (3)**

*Prerequisite:* admission to Chinese M.A. program or consent of instructor. Survey of research and methods in testing/assessment in Teaching Chinese as a 2nd/Foreign Language. Focus on standards for measuring language competence, professionalism, and program reviews.

**CHIN 825 Applied Linguistics and Teaching Chinese (3)**

*Prerequisites:* admission to Chinese program or consent of instructor. Investigation of practical issues pertinent to second language acquisition and pedagogy in Teaching Chinese as a Second Language.

**CHIN 826 Semantics and Morphology (3)**

*Prerequisites:* admission to Chinese M.A. program, or CHIN 401 and consent of instructor. Introduction to linguistic meaning and word formation in Chinese. Chinese semantics, pragmatics, morphology in light of recent findings in cognitive science.

**CHIN 827 Language Change and Dialectic Variation (3)**

*Prerequisites:* FL 325 or equivalent. Introduction to mechanisms of language change and their application to Chinese historical linguistics and modern dialect classification. Topics include sound change, lexical change, grammaticalization, linguistic reconstruction, language typology, and Chinese philology.

**CHIN 837 Materials Development for Teaching Chinese (3)**

*Prerequisite:* admission to Chinese M.A. program or consent of instructor. Strengthening skills in developing teaching materials and level-appropriate thematic units, adopted for national foreign language standards and California state-approved curriculum framework. Language learning assessment and student projects. Taught on-line.

**CHIN 881 Translation (3)**

*Prerequisite:* admission to Chinese M.A. program, or CHIN 312 and consent of instructor. Paired with CHIN 581. For course description, see CHIN 581. Students in 881 have additional requirements. Students who have completed CHIN 581 may not take CHIN 881 for credit.

**CHIN 882 Consecutive and Simultaneous Interpreting (3)**

*Prerequisite:* graduate standing or consent of instructor. Seminar focusing on general English-Chinese and Chinese-English liaison, consecutive and simultaneous interpreting. Training in shadowing, note-taking, and effort management, leading to build-up of skills inconsecutive and simultaneous interpreting.

**CHIN 899 Special Study (1-3)**

*Prerequisites:* consent of the graduate major adviser and the supervising faculty member. Study is planned, developed, and completed under the direction of a member of the departmental faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**CINEMA***Undergraduate Courses***CINE 102 Introduction to Contemporary Cinema (3) [GE]**

Studies in recent filmmaking. Dominant forms (Hollywood, Europe) and alternative modes (documentary, experimental). How films reflect and contribute to the values and culture of a society.

**CINE 301 Introduction to Film Studies and Production (3)**

*Prerequisite:* upper division standing; priority given to CINE majors. Introduction to the basic principles of film studies and production; historical development of film, taking into consideration technical developments and the evolution of film aesthetics. (Formerly CINE 203)

**CINE 303 GW Writing About Cinema - GVAR (3)**

*Prerequisite:* ENG 214 with a grade of C or better; CINE 200 and 202. Builds on analytical skills introduced in CINE 200; advanced analysis and persuasive writing.

**CINE 304 Gender and Film (3) [GE]**

*Prerequisites:* upper division standing or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 9 units as topics vary. (Formerly CINE 404.)

**CINE 305 Film and the Holocaust (3)**

*Prerequisite:* upper division standing or consent of instructor. The use of film to promote, document, and dramatize the Holocaust. Filmmakers who have sought to give expression to its human scale. Significant works which have helped define the issues. Formerly CINE 405. (Cross listed with JS 405. May not be repeated under alternate prefix.)

**CINE 306 Chinese Documentary Film (3)**

*Prerequisite:* CINE 200 and 202 or 203. Study of contemporary Chinese documentary since the 1980s; exploration of the cultural, social, and aesthetic context of Chinese documentary films and filmmaking.

**CINE 308 Third Cinema (3) [GE]**

*Prerequisites:* upper division standing and consent of instructor. Critical perspectives on the cultural and social values of formerly "third world" societies.

**CINE 310 Workshop in Film Production (3)**

*Prerequisites:* cinema major; CINE 200 and 202; upper division standing, and consent of instructor. Must be taken concurrently with CINE 316. Film production workshop where students are required to design and complete solutions to a set of exercises featuring camera, sound, editing, and writing. Extra fee required.

**CINE 311 Film History I (3)**

*Prerequisites:* CINE 200 or 301; ENG 214 or equivalent with grade of C or better; and upper division standing. Narrative, documentary, and experimental films (1895-1945), including directors such as Griffith, Murnau, Eisenstein, Pudovkin, Bunuel, Chaplin, Richter, Dreyer, Pabst, Lorentz, Deren, Cocteau. (Formerly CINE 300)

**CINE 312 Film History II (3)**

*Prerequisites:* CINE 203 or 301; ENG 214 or equivalent with grade of C or better; and upper division standing. Narrative, documentary and experimental films since 1945, including directors such as de Sica, Rossellini, Clair, Bergman, Fellini, Brakhage, Kurosawa, Ray, Truffaut, Antonioni, Rouch, and Godard. (Formerly CINE 302)

**CINE 315 Cinema Production: Technical Crew (1)**

*Prerequisites:* CINE 310/316 or equivalent, and consent of instructor. Experience in phases of technical crew work associated with cinema productions. May be repeated for a total of 6 units. CR/NC grading only.

**CINE 316 Film Production Laboratory (1)**

*Prerequisite:* cinema major; CINE 200 and 202; upper division standing, and consent of instructor. Must be taken concurrently with CINE 310. Experience in 16mm production, including use of camera, lighting, sound, and editing equipment.

**CINE 325 Focus on Film Topics (1) [GE]**

*Prerequisite:* upper division standing. Topic to be specified in Class Schedule. May be repeated for a total of 4 units as topics vary; only 3 units may count towards the cinema major and GE requirement. CR/NC grading only.

**CINE 327 Anthropology and Film (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ANTH 327. For course description, see ANTH 327. (May not be repeated under alternate prefix.)

**CINE 340 Critical Studies (3)**

*Prerequisite:* upper division standing and completion of second year written composition (ENG 214 or equivalent) with a grade of C or better; or passage of the JEPET or equivalent. Must be taken concurrently with CINE 341. Critical approaches for analyzing cinema.

**CINE 341 Critical Studies Discussion Group (1)**

*Prerequisite:* upper division standing and completion of second year composition (ENG 214 or equivalent) with a grade of C or better; or passage of the JEPET or equivalent; CINE 200 and 202 with a grade of C or better. Must be taken concurrently with CINE 340. Applied critical studies, including writing, discussion, and research about cinema.

**CINE 342 Documentary Film (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Development and shifting roles of non-fiction, live action film; significant work of such figures as Flaherty, Vertov, Riefenstahl, Grierson, Leacock-Pennebaker, and Marker.

**CINE 344 Film Genre (3)**

*Prerequisite:* CINE 200 and 202 or CINE 301; upper division standing. May be repeated for a total of 9 units as topics vary.

**CINE 353 Introduction to screenwriting (3)**

*Prerequisite:* cinema major/minor; completion of CINE 301. Introduction to the principles of screenwriting; historical context for the development of dramatic writing.

**CINE 354 Short Format Screenwriting (3)**

*Prerequisites:* upper division standing and consent of instructor. Exploration of visual and verbal screenwriting strategies for developing short films in both standard and experimental formats.

**CINE 355 Screenwriting I (3)**

*Prerequisites:* upper division standing and consent of instructor. Practice in film writing, emphasizing story and plot dynamics, characterization, narration, dialogue, script forms, and alternatives. Analysis of current motion picture scripts.

**CINE 360 Animation I (3)**

*Prerequisites:* upper division standing and consent of instructor. Aesthetics, dynamics of movement, and techniques of animation. Projects in varied media and methods. Laboratory. Extra fee required.

**CINE 361 Drawing for Animation (3)**

*Prerequisites:* upper division standing and consent of instructor. Studies in drawing techniques for animation: gesture and movement, kinetic volume, and abstraction of motion. May be repeated for a total of 9 units.

**CINE 362 Animation II (3)**

*Prerequisites:* CINE 360, CINE 423, and consent of instructor. CINE 423 may be taken concurrently. Developing storyboard and sound animation techniques. Laboratory. May be repeated for a total of 6 units. Extra fee required.

**CINE 364 Animation Pre-Production (3)**

*Prerequisites:* upper division standing and consent of instructor. Visual planning and picture/sound relationship including scripting, storyboarding, and soundtrack design.

**CINE 365 History of Animation (3)**

*Prerequisite:* upper division standing. Animated filmmaking around the world, from origins in graphic and photographic arts to current and future trends in film and electronic media. Varied techniques produced by studios and individual artists.

**CINE 372 Film Theory (3)**

*Prerequisites:* CINE 311 or 312; CINE 340 and 341. Seminar in aesthetics with an analysis of theoretical and critical writing on film.

**CINE 373 Film and Society (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Major social issues through analysis of film texts: race, class, gender and sexual role, feminism, ideology, political movements, social and historical change.

**CINE 376 Cinema Department Internship (1)**

*Prerequisite:* Cinema major; upper division standing. Development of research, writing, and technical skills; training in production practices and technical equipment. May be repeated for a total of 9 units. (CR/NC grading only)

**CINE 401 National/Regional Cinemas (3)**

*Prerequisites:* CINE 300 or 311; CINE 302 or 312; and CINE 340/341. May be repeated for a total of 9 units as topics vary.

**CINE 407 History and Film (3)**

*Prerequisites:* CINE 300 or 302 and CINE 340/341. Examination of historical events as they are presented in film. Representative examples might include narrative, documentary, and experimental films. May be repeated for a total of 6 units as topics vary.

**CINE 408 Israeli Cinema (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with JS 408. For course description, see JS 408. (May not be repeated under alternate prefix.)

**CINE 409 Latina/o Cinema (3) [GE]**

*Prerequisite:* upper division standing. Cross listed with LTNS 409 [RAZA 409]. For course description, see LTNS 409. (May not be repeated under alternate prefix.)

**CINE 423 Introduction to Digital Filmmaking (3)**

*Prerequisites:* CINE 310 or CINE 360 and consent of instructor. The aesthetics and production techniques of filmmaking using digital tools and processes.

**CINE 425 Art of Cinematography (3)**

*Prerequisite:* CINE 300, 302, 340/341, or consent of instructor. Survey of outstanding cinematographers and films in the world film history; examination of art, aesthetics, photography elements and cinematic techniques in cinematography.

**CINE 442 Producing and Financing Films (3)**

*Prerequisites:* CINE 300 or 311; CINE 302 or 312; and CINE 340/341. Economics of production, budgeting, breakdowns, financing and contracts, distribution and exhibition, censorship, copyright, libel and slander, law of privacy, releases.

**CINE 455 Screenwriting II (3)**

*Prerequisite:* CINE 354 or 355 or equivalent. Advanced practice in conceptualizing and writing scripts.

**CINE 466 Animation III (3)**

*Prerequisites:* CINE 362 and consent of instructor. Workshop emphasizing completion of soundtracks, editing, and laboratory operations for projects. May be repeated for a total of 9 units. Extra fee may be required.

**CINE 468 Advanced Animation Workshop (3)**

*Prerequisites:* CINE 362 and consent of instructor. Study, design, and execute a variety of visual effects. Aesthetic integration of effects into existing film projects and experimental animation. Laboratory. May be repeated for a total of 9 units.

**CINE 500 Variable Topics in Animation (3)**

*Prerequisites:* upper division standing and consent of instructor. Topic to be specified in Class Schedule. Exploration of animation aesthetics and techniques focusing on particular methods. May be repeated for a total of 9 units as topics vary.

**CINE 502 Experiments in Cinematic Form (3)**

*Prerequisites:* CINE 311, 312, and 340/341. See online Bulletin for list of topics. Focus on experimental cinematic forms, from radical experimental films emphasizing social aesthetic modes, periods, and artists, to contemporary explorations of forms outside the conventional cinematic infrastructure. May be repeated for a total of 9 units when topics vary.

**CINE 506 Cinematheque Management (3)**

*Prerequisites:* CINE 300 or 311; CINE 302 or 312; and CINE 340/341. Practical experience in presenting film and video offerings to the public. Program planning; promotion and publicity; house management and public relations. May be repeated once.

**CINE 508 Film Authorship (3)**

*Prerequisites:* CINE 300 or 311; CINE 302 or 312; and CINE 340/341. Focus may be on directors, stars, studios, writers, producers or others who may be the creative force behind a given film. May be repeated for a total of 9 units as topics vary.

**CINE 510 Film Directing (3)**

*Prerequisites:* CINE 310 or equivalent and consent of instructor. Function of the director; manipulation of space and time, problems of continuity, script planning and blocking, handling actors and crew. Laboratory.

**CINE 512 Sound for Film (3)**

*Prerequisites:* CINE 310 or 710 and consent of instructor. Laboratory in aesthetics of field and studio recording. Practice in sync recording, sound effects, narration, and Foley production. Preparation of tracks and post-production manipulation of sound across film genres.

**CINE 515 Narrative Directing (3)**

*Prerequisite:* cinema major/minor; completion of CINE 310/316 and consent of instructor. Creative role of the narrative film director; focus on directing actors for character driven work, and directorial styles and authorship.

**CINE 519 Soundstage Workshop (1)**

*Prerequisites:* CINE 310 or CINE 710 or equivalent and consent of instructor. Laboratory in lighting for film. Aesthetic and atmospheric effects of film lighting. Extra fee required. CR/NC grading only.

**CINE 520 Projects in Post-Production Sound (3)**

*Prerequisites:* CINE 310 or CINE 710 or equivalent and consent of instructor. Preparation and editing of multiple sound tracks. Recording and mixing of sound tracks for picture using file-based technologies. Extra fee required.

**CINE 522 Projects in Film Editing (3)**

*Prerequisites:* CINE 310 or CINE 710 and consent of instructor. Techniques and aesthetics of film editing. Extra fee required. May be repeated for a total of 6 units.

**CINE 523 Exploration in Interactive Cinema (3)**

*Prerequisites:* CINE 310 or CINE 360 and consent of instructor. Conceptualization, programming, production, and presentation of cinema using interactive digital tools and processes. May be repeated for a total of 6 units.

**CINE 524 Digital Sound for Film (3)**

*Prerequisites:* CINE 310 or 710 and consent of instructor. Examination of sound design for cinema focusing on computer-based technologies. Evaluation of sound/picture relationships.

**CINE 525 Cinematography and Lighting (3)**

*Prerequisites:* CINE 310 or CINE 710 or equivalent and consent of instructor. Skills and aesthetics of cinematography and lighting. Extra fee required.

**CINE 526 Optical Printing (3)**

*Prerequisites:* CINE 310 or CINE 710 or equivalent and consent of instructor. Optical printing for motion pictures.

**CINE 527 Documentary of Social Justice and Health (6)**

*Prerequisite:* upper division standing and consent of instructor. Hands-on collaborative production of social justice and health documentary films. Preproduction research includes identifying issues and community participants. Screening, critiquing, and editing. (Cross listed with H ED 527. May not be repeated under alternate prefix.)

**CINE 530 Digital Cinematography (3)**

*Prerequisite:* upper division standing and consent of instructor. Skills, techniques, and aesthetics in digital cinematography. Practice in fields and studio digital cinematography and lighting. Post-production digital workflow and imaging manipulation. May be repeated for 3 units for degree credit.

**CINE 532 International Documentary Workshop (6)**

*Prerequisite:* upper division standing and prior approval of project proposal. A cross-cultural student program with the collaboration of comparable film programs in other countries. Students will broaden their cultural vision and develop their cinematic techniques in a global context.

**CINE 540 Issues in Film Theory (3)**

*Prerequisites:* CINE 300 or 311; CINE 302 or 312; CINE 340/341. Advanced study of selected methods or issue in film theory. Topics to be specified in Class Schedule. May be repeated for a total of 6 units as topics vary.

**CINE 551 2D Digital Animation (3)**

*Prerequisites:* upper division standing and consent of instructor. Priority enrollment given to cinema majors. Exploring the aesthetics, structures and techniques of experimental, documentary and narrative 2D digital animation.

**CINE 555 Writing and Performing in Film and Theatre (3)**

*Prerequisite:* upper division standing and consent of instructor. Workshop brings each student through practical hands-on exercises in writing, directing and working with actors.

**CINE 610 Senior Critical Studies Seminar (3)**

*Prerequisites:* grade of C or better in CINE 300 or 311, CINE 302 or 312, and CINE 372. Original research, seminar reports, close analysis. Refining critical skills, developing project outline for work to be produced within an independent studies format.

**CINE 612 Digital Cinema Workshop (1)**

*Prerequisites:* CINE 310 or CINE 710 or equivalent and consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 6 units as topics vary.

**CINE 620 Advanced Film Production I (3)**

*Prerequisites:* CINE 310 or equivalent and departmental permission. Portfolio required. Must be taken concurrently with CINE 624. Development of senior filmmaking project. Extra fee may be required.

**CINE 622 Advanced Film Production II (3)**

*Prerequisite:* CINE 620. Must be taken concurrently with CINE 624. Completion of senior filmmaking project. Extra fee may be required.

**CINE 623 Exploration in Cinema as an On-Line Medium (3)**

*Prerequisites:* CINE 310 or CINE 360 and consent of instructor. Conceptualization, programming, production, and presentation of cinema on the Internet, using digital tools and processes. May be repeated for a total of 6 units.

**CINE 624 Advanced Production Crafts (1)**

*Prerequisite:* upper division standing. Must be taken concurrently with CINE 620 and 622. Use of filmmaking equipment and materials. Development of advanced production skills and techniques. Laboratory. May be repeated for a total of 2 units.

**CINE 625 Post Production Workshop (1-3)**

*Prerequisites:* CINE 310 or 710 and consent of instructor. Post production workshop for both advanced undergraduate and graduate students who need to complete works-in-progress. Students work individually editing, building sound tracks, preparing their projects for mixing and conforming, and following through the required steps in post producing independent films. CR/NC grading only. (May be repeated for a total of 6 units.)

**CINE 630 Workshop in Film Production (3)**

*Prerequisites:* CINE 310 or CINE 710 and consent of instructor. Topic to be specified in Class Schedule. Exploration of special topics in film production. Classwork, 2 units; activity, 1 unit. May be repeated for a total of 9 units as topics vary.



**CINE 651 Experimental Animation (3)**

*Prerequisites:* upper division standing and consent of instructor. Studies in the aesthetics, structures, and production techniques of experimental and auteur animated films. Priority enrollment for cinema students.

**CINE 655 Projects in Film Writing (3)**

*Prerequisites:* CINE 455 or equivalent and consent of instructor. Advanced projects in film writing. Writing of 60 minutes or longer screenplay, analysis and evaluation of works in progress. May be repeated for a total of 6 units.

**CINE 660 3D Computer Animation (3)**

*Prerequisites:* upper division standing and consent of instructor. Developing technical and conceptual skills related to modeling, motion choreography, and rendering. May be repeated for a total of 9 units. Extra fee required.

**CINE 661 Intermediate 3D Computer Animation (3)**

*Prerequisite:* CINE 360 and CINE 660 or consent of instructor. Developing intermediate technical and conceptual skills in 3D computer animation. May be repeated for a total of 9 units.

**CINE 690 Production Practice (3)**

*Prerequisites:* upper division standing and consent of instructor. Advanced production practice in which students propose and carry out individual projects. Students act as screenwriters, directors, editors, and/or producers. Semester-based goals are approved and supervised by course instructor. May be repeated for a total of 9 units.

**CINE 692 Internship (3)**

*Prerequisite:* upper division standing and consent of instructor. Experience in a special field. 100+ hours of field experience in cinema-related activities under the supervision of professionals. May be repeated for a total of 6 units. CR/NC grading only.

**CINE 695 Independent Critical Studies (3)**

*Prerequisites:* CINE 300 or 302, CINE 340/341 or consent of instructor. Independent studies for qualified students who wish to pursue research and scholarly work under faculty supervision. May be repeated for a total of 9 units.

**CINE 699 Independent Study (1)**

*Prerequisites:* CINE 200 and 202; upper division standing and consent of instructor. Selected projects in cinema studies or production. May be repeated for a total of 3 units.

*Graduate Courses***CINE 700 Introduction to Graduate Study (3)**

*Prerequisites:* admission to M.A. in Cinema. Orientation to graduate study. One or two major thinkers such as Derrida, Foucault, Marx, Freud and their influence on film study. Development of a tentative master's thesis forms the primary basis for written work.

**CINE 701 Creative Process I (3)**

*Prerequisite:* admission to M.F.A. in Cinema; must be taken concurrently with CINE 710, 711, and 721. Basic elements of film writing and design: conceptualization, idea development, scripting, storyboarding, composing/staging for the camera, and image gathering.

**CINE 702 Creative Process II (3)**

*Prerequisite:* CINE 701; must be taken concurrently with CINE 712 and 722. Continuation of CINE 701. Emphasizing writing and design for a specific film project and basic principles of writing a research proposal.

**CINE 710 Production Practice I (3)**

*Prerequisite:* admission to M.F.A. in Cinema. Must be taken concurrently with CINE 701, CINE 711, and CINE 721. Beginning graduate course in cinematography and lighting. Use of film stocks, cameras, lenses, filters, light meters, and lights as well as screen direction, camera composition, and movement.

**CINE 711 Production Practice II (3)**

*Prerequisite:* admission to M.F.A. in Cinema. Must be taken concurrently with 701, 710, and 721. Beginning graduate course in editing and sound for film. Processes and procedures of picture and sound editing. Field, studio, and post-production sound for motion pictures. Problems in design and the production of meaning. (Formerly CINE 712.)

**CINE 712 Production Practice III (3)**

*Prerequisites:* CINE 701, CINE 710, CINE 711, and CINE 721. Must be taken concurrently with CINE 722. Continuation of CINE 710 and 711. Refinement of basic filmmaking skills and processes. Production of required first year M.F.A. project.

**CINE 713 Animation Workshop (3)**

*Prerequisites:* CINE 360, CINE 362, and consent of instructor. Aesthetics of animation and production of a short animated film using film or computer techniques. May be repeated for a total of 9 units.

**CINE 721 Non Narrative Film (3)**

*Prerequisite:* admission to the M.A. or M.F.A. in Cinema. Issues and concepts related to non-narrative forms such as experimental, documentary, or ethnographic film, mainly in a cross-cultural context. A hypothetical film project forms the major written assignment.

**CINE 722 Narrative and the Independent Tradition (3)**

*Prerequisite:* CINE 721 and admission to M.A. or M.F.A. in Cinema. The tradition of independent narrative filmmaking: narrative structure, European art cinema, Third cinema, and American independent cinema.

**CINE 724 Cinema Theory I (3)**

*Prerequisites:* CINE 722 and successful completion of department process review. Research in aesthetic issues and their relationship to theories of subjectivity, representation, and cultural politics. Aesthetics as it pertains to film-video production: the expressive potential of aural and visual elements and the implications or consequences of various relationships of sound and image for spectators.

**CINE 726 Cinema Theory II (3)**

*Prerequisites:* CINE 724, 761, 762, and advancement to second year M.F.A. Must be taken concurrently with CINE 763 and 770. Combines the practical aspects of portfolio and teaching preparation with the theoretical concerns generated from thesis projects and questions of pedagogy.

**CINE 740 Seminar in Film Theory (3)**

*Prerequisites:* CINE 700 or equivalent and consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 9 units as topics vary.

**CINE 745 Seminar in Film History and Criticism (3)**

*Prerequisites:* CINE 700 or equivalent and consent of instructor. Topic to be specified in Class Schedule. Intensive and advanced study of selected topics in film theory. May be repeated for a total of 9 units as topics vary.

**CINE 755 Feature Screenwriting (3)**

*Prerequisites:* graduate status, introductory screenwriting, and consent of instructor. Advanced screenwriting leading to the completion of a feature-length original script. The development of ideas, premise pitching, and disciplined writing practice.

**CINE 761 Directing for Cinema (3)**

*Prerequisites:* CINE 701, 710, 711, 721, 712, 722, and advancement to second year M.F.A. Must be taken concurrently with CINE 724 and 762. Advanced production course that emphasizes students' individual ideas, how to put them into moving images/sound/text, and how/why these inform their evolving creative work.

**CINE 762 Advanced Cinematography and Lighting (3)**

*Prerequisites:* CINE 701, 710, 711, 721, 712, 722, and advancement to second year M.F.A. Must be taken concurrently with CINE 724 and CINE 761. Working cinematographers give master classes in cameras and lighting techniques. Film laboratory technicians, Kodak representatives, and others consult with students in the classroom. Students are given projects to complete in 16mm and 35mm.

**CINE 765 Internship (3)**

*Prerequisites:* graduate status in cinema studies and consent of supervising instructor. Field experience with production entities and organizations within the cinema industry. May be repeated once with consent of instructor.

**CINE 770 Film Production Research (3)**

*Prerequisites:* CINE 724, 761, 762, and advancement to second year M.F.A. Must be taken concurrently with CINE 726 and CINE 763. Focuses on the development of the students' individual vision and aesthetics and its realization through research, script development, and production planning for the thesis film.

**CINE 813 Production Practice in Animation (3)**

*Prerequisites:* approved MFA cinema students with consent of instructor. Developing skills in one or more modes of animation. Individual and/or group projects. May be repeated for a total of 9 units.

**CINE 852 Directed Experience in Film Education (3)**

*Prerequisite:* consent of supervising instructor. Directed experience in the teaching of film courses. Students assist in course preparation and instruction and receive supervision from the instructor in charge. May be repeated once.

**CINE 894 Creative Work Project (3)**

*Prerequisites:* CINE 770 and approval of thesis project proposal. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**CINE 897 Research Project in Cinema Studies (3)**

*Prerequisites:* CINE 700 and consent of graduate coordinator. Methods of research for individual graduate projects in cinema studies. Development of a problem of interest to the student.

**CINE 898 Master's Thesis (3)**

*Prerequisites:* CINE 897 and approval of thesis proposal. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**CINE 899 Special Study (3)**

*Prerequisites:* consent of supervising instructor and graduate coordinator. Supervised individual projects in various aspects of the motion picture field. May be repeated once.

**CLASSICAL ARCHAEOLOGY***Undergraduate Courses***CLAR 250 Archaeology of the Ancient World (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Archaeology of the ancient world. Artistic and cultural achievements of Egypt, the Ancient Near East, Greece and Rome, and interaction of the art with society.

**CLAR 500 Ancient Egyptian Civilization (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Ancient Egyptian civilization from Pre-dynastic through Ptolemaic times: art, archaeology, literature, and religion with research use of Suto Egyptian Collection.

**CLAR 502 Ancient Egyptian Language and Literature (3) [GE]**

*Prerequisites:* upper division standing or consent of instructor. Previous foreign language study strongly recommended. Introduction to signs, vocabulary, grammar and syntax of Middle Egyptian language; learn to read texts from funerary stelae, coffins, and short stories.

**CLAR 507 Ancient Roman Civilization (3)**

*Prerequisite:* ENG 214 or equivalent. Ancient Roman civilization from the foundation of Rome to the reign of Justinian, based on archaeological collections and encompassing the history, languages, and arts. CLAR 507 recommended as prerequisite to CLAR 508.

**CLAR 508 Ancient Roman Civilization (3)**

*Prerequisite:* ENG 214 or equivalent. Ancient Roman civilization from the foundation of Rome to the reign of Justinian, based on archaeological collections and encompassing the history, languages, and arts. CLAR 507 recommended as prerequisite to CLAR 508.

**CLAR 515 Ancient Greek Civilization (3)**

*Prerequisite:* ENG 214 or equivalent. Original monuments of ancient Greece in their historical setting from the Neolithic to the Roman period. First semester ends with the Persian Wars and concentrates on the Mycenaean period; second semester covers the Golden Age of Pericles to the reign of the Roman Emperor Hadrian.

**CLAR 516 Ancient Greek Civilization (3)**

*Prerequisite:* ENG 214 or equivalent. Original monuments of ancient Greece in their historical setting from the Neolithic to the Roman period. First semester ends with the Persian Wars and concentrates on the Mycenaean period; second semester covers the Golden Age of Pericles to the reign of the Roman Emperor Hadrian.

**CLAR 535 Ancient Sicily and Southern Italy (3)**

*Prerequisite:* ENG 214 or equivalent. Archaeological, historical, cultural study of Sicily and southern Italy from Bronze Age to Roman Empire, including material from Greek city-states. Roman period and indigenous peoples. Paired with CLAR 835. Students who have completed CLAR 835 may not take CLAR 535 for credit.

**CLAR 540 Greece and the Near East (3)**

*Prerequisite:* graduate standing or consent of instructor. Study of the intersection of the historiographical traditions and material records of ancient Greece and the Near East. (Paired with CLAR 840. Students who have completed CLAR 840 may not take CLAR 540 for credit.)

**CLAR 545 Pompeii & Herculaneum: Cities in the Shadow of Vesuvius (3)**

*Prerequisite:* CLAR 250 or consent of instructor. Core aspects of archaeology, daily life, art and history in the ancient cities of Pompeii and Herculaneum. (Paired with CLAR 845. Students who have taken CLAR 845 may not take CLAR 545 for credit.)

**CLAR 550 The Art and Archaeology of the Mediterranean Bronze Age: Minoans, Mycenaean, Conflict & Trade (3)**

*Prerequisite:* CLAR 250 or equivalent, or consent of instructor. Introduction to the archaeology, architecture, art, society and scripts of Mediterranean cultures during the Bronze Age, with special emphasis on the Minoans and Mycenaean. (Paired with CLAR 850. Students who complete CLAR 850 may not take CLAR 550 for credit.)

**CLAR 565 Roman Topography (3)**

*Prerequisite:* ENG 214 or equivalent. Study of important monuments of Rome as evidence of its historical-political and artistic development from the 8th Century B.C.E. to the Fall of the Empire in the 5th Century C.E. Paired with CLAR 865. Students who have completed CLAR 865 may not take CLAR 565 for credit.

**CLAR 570 Archaic Greece (3)**

*Prerequisites:* CLAR 250 or equivalent or consent of instructor. Investigation of material culture of Archaic Greece. Topics may include colonization, coinage, agriculture, development of sanctuaries, origin of new styles of sculpture & painting, burial practices, rise of the polis. Paired with CLAR 870. Students who have taken CLAR 870 may not take CLAR 570 for credit.

**CLAR 699 Special Study (1-3)**

*Prerequisite:* consent of instructor. Supervised study of a special archaeological problem to be selected by the student.

*Graduate Courses***CLAR 835 Ancient Sicily and Southern Italy (3)**

*Prerequisite:* graduate status or consent of instructor. For course description, see CLAR 535. Paired with CLAR 535. Students who have completed CLAR 535 may not take CLAR 835 for credit.

**CLAR 840 Greece and the Near East (3)**

*Prerequisite:* graduate standing or consent of instructor. Paired with CLAR 540. See CLAR 540 for course description. Students who have completed CLAR 540 may not take CLAR 840 for credit.

**CLAR 845 Pompeii & Herculaneum: Cities in the Shadow of Vesuvius (3)**

*Prerequisite:* CLAR 250 or consent of instructor. For course description, see CLAR 545. Paired with CLAR 545. Students who have taken CLAR 545 may not take CLAR 845 for credit.

**CLAR 850 The Art and Archaeology of the Mediterranean Bronze Age: Minoans, Mycenaean, Conflict & Trade (3)**

*Prerequisite:* graduate standing or consent of instructor. Paired with CLAR 550. For course description see CLAR 550. Students who complete CLAR 550 may not take CLAR 850 for credit.

**CLAR 865 Roman Topography (3)**

*Prerequisite:* Graduate status or consent of instructor. For description, see CLAR 565. Paired with CLAR 565. Students who have completed CLAR 565 may not take CLAR 865 for credit.

**CLAR 870 Archaic Greece (3)**

*Prerequisites:* graduate standing or consent of instructor. For description, see CLAR 570. Paired with CLAR 570. Students who have taken CLAR 570 may not take CLAR 870 for credit.

**CLAR 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member. Study is planned, developed, and completed under the direction of a member of the department. Open to graduate students of demonstrated ability to do independent work. Enrollment by petition (form available in the department office).

**CLASSICS***Undergraduate Courses***CLAS 330 Ancient Epic Tales (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Epic literature of ancient Mediterranean world. Mythic and heroic themes, narrative techniques, historic and social background, and cross-cultural influences.

**CLAS 360 Greek and Roman Mythology (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Classical myths that furnish background material for Western literary and cultural traditions; nature, function, and interpretation of myth.

**CLAS 380 Myth, History, and Movies (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Tales from Greco-Roman mythology and history reshaped and transmitted by film as modern storyteller. Viewing of films set in the ancient Mediterranean world and readings in translation of Greek and Latin authors.

**CLAS 410 Classical Culture: Greece (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Ancient Greek culture in Classical period. Readings from literature; cultural development in social and historical context. (Cross listed with HUM 401. May not be repeated under alternate prefix.)

**CLAS 415 Classical Culture: Rome (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Ancient Roman culture in Republican and Imperial periods. Readings from literature; cultural development in social and historical context. (Cross listed with HUM 402. May not be repeated under alternate prefix.)

**CLAS 490 History of Ideas in the Ancient Classical World (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Intellectual and cultural history of the ancient classical world of Greece and Rome from its beginnings to the death of Saint Augustine; evolution of ideas, their origins, interconnections, impact, and influence.

**CLAS 510 The Byzantine Empire (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with MGS 510/HIST 326. For course description, see MGS 510. (May not be repeated under alternate prefix.)

**CLAS 690 Editing and Publishing the Classics Journal (1-3)**

*Prerequisite:* major/minor in classics or department consent. Supervised experience in editing and production of journal of student work. Credit not applicable to major/minor fields in classics. Paired with CLAS 890. CLAS 690/890 may be repeated for a total of 6 units. CR/NC grading only.

**CLAS 697 Honor's Thesis (3)**

*Prerequisites:* major in classics and consent of department. Tutorial leading to an honor's project or thesis on special research topic to be determined jointly by student and faculty member. CR/NC grading only.

**CLAS 699 Special Study (1-3)**

*Prerequisite:* consent of major adviser and supervising faculty member. Study is planned, developed, and completed under the direction of a member of the department. Open only to students who have demonstrated ability to do independent work in Classics.

**Graduate Courses****CLAS 700 Proseminar in Classical Studies: Texts and Contexts (3)**

*Prerequisite:* graduate status or consent of instructor. Classical studies: paleography, epigraphy, numismatics, archaeology, literary criticism and their related research tools (e.g., inscriptions, coins, papyrus manuscripts, material remains).

**CLAS 720 Seminar in Classical Languages and Literature (3)**

*Topic to be specified in Class Schedule.* May be repeated when topics vary.

**CLAS 890 Editing and Publishing the Classics Journal (1-3)**

*Prerequisite:* major in classics or department consent. For course description, see CLAS 690. Paired with CLAS 690. CLAS 690/890 may be repeated for a total of 6 units. CR/NC grading only.

**CLAS 896 Directed Reading in Classics (3)**

Supervised study of primary texts and topics in classics, based on departmental reading list and student's special areas of emphasis, in preparation for the comprehensive oral examination. Not open to M.A. candidates selecting the thesis option. CR/NC grading only.

**CLAS 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the Master of Arts and recommendation of major adviser. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**CLAS 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member. Study is planned, developed, and completed under the direction of a member of the department. Open to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**CLINICAL LABORATORY SCIENCE****Graduate Courses****CLS 701 Clinical Chemistry and Urinalysis (4)**

*Prerequisites:* admission to CLS certificate program and possession of California State trainee license. Overview of clinical biochemistry and renal function. Proper specimen collection, instrumentation, quality assurance, physical and chemical analysis of samples. Case histories and laboratory practice emphasize correlation of laboratory findings and clinical conditions.

**CLS 702 Clinical Laboratory Science Internship I (4)**

*Prerequisites:* admission to CLS certificate program and possession of California State trainee license. Clinical training in a clinical laboratory for licensure in California and ASCP. May be repeated once for credit. (CR/NC grading only.)

**CLS 705 Clinical Laboratory Science Internship II (3)**

*Prerequisites:* admission to CLS certificate program and possession of California State trainee license. Clinical training in a clinical laboratory for licensure in California and ASCP. May be repeated once for credit. (CR/NC grading only.)

**CLS 706 Contemporary Clinical Science Issues (1)**

*Prerequisites:* admission to CLS certificate program and possession of California State trainee license. Includes modules on: 1) Quality control and statistics in the laboratory; 2) Laboratory administration, management and legislation; 3) Laboratory instrumentation for manual, automated, and computerized techniques; 4) Research methods; 5) Molecular diagnostics theory and clinical practice.

**CLS 707 CLS Bridge to Clinical Practice (3)**

*Prerequisites:* admission to CLS certificate program and possession of California State trainee license. Clinical training in a clinical laboratory for licensure in California and ASCP. (CR/NC grading only.)

**CLS 709 Clinical Laboratory Science Internship III (3)**

*Prerequisites:* admission to CLS certificate program and possession of California State trainee license. Clinical training in a clinical laboratory for licensure in California and ASCP. CR/NC grading only.

**CLS 731 Clinical Hematology and Laboratory Application (4)**

*Prerequisites:* admission to CLS certificate program and possession of California State trainee license. Identification of blood cells, pathophysiology, hemostasis mechanisms, and disease states of hematological and hemostasis conditions. Theory and application of hematology procedures with emphasis on detection of abnormalities. Interpretation of clinical cases.

**CLS 753 Clinical Microbiology for the CLS Intern (4)**

*Prerequisites:* admission to CLS certificate program and possession of California State trainee license. The principles of diagnostic microbiology that apply to bacteria, fungi, parasites and viruses, including phenotypic and genotypic detection, identification and susceptibility testing using slide and culture evaluation. Correlation of principles with case studies.

**CLS 790 Clinical Serology and Immunochemistry (3)**

*Prerequisites:* admission to CLS certificate program and possession of California State trainee license. Theory and practice of serology and blood banking, including immune system, autoimmune diseases, red blood cell antigens, transfusion reactions, compatibility testing, current serological methodologies such as ELISA and immunofluorescence. Correlation of laboratory findings with pathophysiology. Interpretation of case studies

**COMMUNICATION STUDIES****Undergraduate Courses****COMM 150 Fundamentals of Oral Communication (3) [GE]**

Introduction to communication in interpersonal relationships, group interactions, and formal speaking. Skill development in listening, speech preparation, and oral presentation.

**COMM 302 Communication and Social Process (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Process of institutional and societal decision making. Communication patterns of status quo to maintain itself in milieu of conflict and change. Conflict resolution, persuasion and propaganda, political leadership and institutional authority.

**COMM 321 Communication Theory (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Communication theories and research. Communication models, verbal and nonverbal symbols, systems theory, symbolic interactionism, persuasion/compliance-gaining, and communication in various contexts.

**COMM 341 Rhetorical Theory (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Theoretical principles of rhetoric: attitude formation and change, audience and audience analysis, ethics, appeals, invention, disposition, style, argument structures, strategies, topoi, criticism, humor, and metaphor.

**COMM 351 Public Speaking (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM/LS majors. Principles of effective extemporaneous speaking; practice in preparation and delivery of speeches for different occasions. Class criticism of student speeches.

**COMM 352 Women and Words (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Explores women's communicative cultures, while enhancing students' performance skills through a variety of speech activities, such as performance of literature, public speaking, and small group communication. Combines communication and linguistic theories with practical applications within a feminist framework.

**COMM 353 Speech for the Classroom Teacher (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM/CAD/LS majors. Principles and practices in the speech needs of the teacher. Designed to improve speech habits of the prospective teacher; assist prospective teachers in acquiring basic, usable techniques for speech improvement in the classroom.

**COMM 362 Introduction to Oral Interpretation (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Oral interpretation of literature: excerpts from prose, poetry, and public speeches. Analysis of literature, script development, and performance skills.

**COMM 363 Oral Interpretation of the First Person Voice (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Theory and principles of reading literature aloud which is written in the first person voice to illuminate the special properties when translated from the printed page to the spoken word.

**COMM 364 Oral Interpretation of Children's Literature (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM/CAD/LS majors. Focus on adults reading stories, poetry, and nonfiction to children ages 5 to 12 years old. Skills for translating the printed page into an oral performance.

**COMM 365 Argumentation and Debate (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM/LS majors. Methods of analysis and verbal formulation of the strongest possible case for and against a position or a point of view; the support of that position through evidence and inference; practical application in debate and public speaking.

**COMM 366 Persuasion (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM/LS majors. Factors involved in influencing audience attitudes through public speeches. Awareness of oral persuasion as used in our society and to clarify ethical standards of responsibility of the persuader.

**COMM 368 Forensics (2) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. On-campus and intercollegiate forensics activities including debate, oratory, extemporaneous speaking, and discussion. May be repeated once.

**COMM 410 American Phonetics (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Speech sounds and prosodic features of American English. Relationship between sounds and the alphabet, and transcribing speech using the International Phonetic Alphabet.

**COMM 411 Language for Teachers (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM/CAD majors. Introduces concepts of language important to prospective elementary school teachers, such as grammar rules, sound-symbol relationships. Learn how children acquire language and literacy skills as first and second language learners and participants in culture.

**COMM 440 Political Communication (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. American political communication in terms of rhetorical structure, substance, strategy, and style. Analysis of contemporary political campaign rhetoric and communication.

**COMM 441 Rhetoric of American Dissenters (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. The rhetoric of American dissenters from colonial times to the present. Issues of religious freedom, women's rights, racial equality, and industrial democracy. Cultural values implicit in the arguments of dissenters and mainstream reactions.

**COMM 443 Rhetoric of Feminist Movements (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Impact of women leaders of single and multiple issue campaigns on American social policy. Overview of social movement and rhetorical criticism literature.

**COMM 444 Rhetoric of the Media (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Rhetorical dimensions of the major communications technologies through history—from oral culture through literacy and print to radio and television. Social and cultural effects of each medium, its impact on human consciousness and behavior.

**COMM 445 The Rhetoric of Terrorism (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Rhetorical implications of terrorism sponsored by individuals, dissent groups, criminal enterprises and/or states; examines how symbolic messages are rhetorically communicated and disseminated for and interpreted by audiences.

**COMM 448 Rhetoric of Ecology - GVAR (4)**

*Prerequisites:* upper division COMM major; COMM 150 and ENG 214 or equivalents with a grade of C- or better. Develop writing competencies (proposing, drafting, editing) for use in various contexts. Analysis of communication in the construction, reproduction, and contestation of relationships between people and the environment.

**COMM 449 The Rhetoric of Criminality and Punishment (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM/CJ majors. Contemporary rhetoric of violence and hate, including social discourses of crime and punishment, war and peace, and hatred related to race, sex, gender, sexuality, and class.

**COMM 461 Issues in Free Speech (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Issues and cases involving freedom of expression. Historical and current controversies involving national survival, public morality, law and order, academic freedom, privacy. Symbolic and non-verbal free speech issues.

**COMM 496 Special Studies in Communication and Social Criticism (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Topic to be specified in Class Schedule. May be repeated when topics vary.

**COMM 502 Interpersonal Communication (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Purposes that motivate interpersonal communication, characteristics of the verbal and non-verbal message forms employed, and effects of these patterns of interaction upon the persons involved.

**COMM 503 Gender and Communication (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Processes and theories of gender and communication, including the role of power and language; verbal and non-verbal interaction; the impact of historical, social, and psychological factors on gendered communication in different settings.

**COMM 504 Communication and Masculinities (4)**

*Prerequisites:* COMM 150 and ENG 214. Analysis of communication in the production, maintenance, and contestation of various expressions/performances of masculinity, from identity/interpersonal relationships to mediated texts/cultural discourses, in national/international contexts.

**COMM 508 Children's Communication (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM/CAD/LS majors. Children's ability to use language appropriately in interpersonal and group situations is examined as a set of "communication acts": informing, persuading, feeling, ritualizing, and imagining.

**COMM 512 Nonverbal Communication (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Theory and research on nonverbal communication. Interpersonal space, facial displays, body posturing, paralanguage, and costume. Individual awareness of nonverbal messages and individual range of nonverbal expression.

**COMM 515 Family Communication (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Family communication patterns: relational communication, family themes and rules, roles, power, decision-making, conflict, and responses to change and stress.

**COMM 516 Special Studies in Interpersonal Communication (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Topic to be specified in Class Schedule. May be repeated when topics vary.

**COMM 521 Group Discussion (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; priority given to juniors and seniors in COMM/LS/conflict resolution. Principles of group discussion; influence of structure, norms, roles, leadership, and climate on the processes of communication and collaborative decision-making. Evaluation of members and leaders.

**COMM 522 Organizational Communication (4)**

*Prerequisite:* COMM 150 or equivalent; enrollment priority to junior and senior COMM majors. Communication processes in professional, industrial, community, and social organizations, and consultation in developing viable organizational systems. Fieldwork in description and analysis of organizational communication problems.

**COMM 522 GW Organizational Communication - GVAR (4)**

*Prerequisites:* upper division standing in COMM major; COMM 150 and ENG 214 or equivalent with a C- or better. Develop writing competencies (proposing, drafting, editing) for use in professional, industrial, community and social organization; description and analysis of organizational communication processes, practices and policies.

**COMM 525 Sexual Identity and Communication (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Emergence of sexual identity and orientation in social interaction. Explores how interpersonal and group communication shapes the sexual self through private discourse--labeling, defining, self-disclosing--and public dialogue--community organizing and advocacy.

**COMM 527 Health Communication (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Theory and practice of communication in health care. Communication in interpersonal, group, organizational, mass media, and cultural contexts. Application of communication to health problems like HIV/AIDS, cancer, drug and alcohol use.

**COMM 530 Communication in Organizational Training (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Communication techniques necessary for successful training in organizations. Skills in assessing training needs, designing programs, and evaluating results.

**COMM 531 Conflict Resolution (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Communication and conflict in two-person, small group, and organization settings. Conflict resolution and leadership skills development.

**COMM 532 Interviewing Methods in Organizational Settings (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. The interview as a complex communication process focusing on the development of patterns of questions and appropriate response strategies. Rhetorical analysis of interviews in professional contexts.

**COMM 533 Communication and Empowerment in Organizations (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. The process of empowerment as it relates to human communication; various conceptualizations of "empowerment," existing treatment(s), and communicative strategies for individual, group or team, and organizational empowerment.

**COMM 534 GW Mediation Theory and Practice - GVAR (4)**

*Prerequisites:* COMM 150; ENG 214 or equivalents with a grade of C or better; upper division standing in COMM major; enrollment priority only to students who have not met the GVAR. Skill development in communication for dispute resolution in mediation. Upper level writing competencies developed. ABC/NC grading only.

**COMM 534 Mediation Theory and Practice (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; priority given to juniors and seniors in COMM/LS/conflict resolution. Theories of mediation/alternative for dispute resolution, mediation skills training, exposure to community mediation organizations, practices. In depth case analysis, role plays, community service opportunities.

**COMM 536 Special Studies in Group and Organizational Communication (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Topic to be specified in Class Schedule. May be repeated when topics vary.

**COMM 537 Leadership Communication (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Theories of leadership communication as they are manifested in organizational and public settings to attain goals.

**COMM 541 Intercultural Communication (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Communicative encounters among people of different cultural and ethnic groups. Differences in communicative rules, norms, roles, and their underlying cultural assumptions/values; ways of enhancing such encounters.

**COMM 542 Intracultural Communication (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Communicative styles and forms within and among cultural groups in the U.S. Communicative behavior of non-dominant groups such as Blacks, Asians, Chicanos, gays, women, the aging, and disabled.

**COMM 543 Dialogues Across Differences (4) [GE]**

*Prerequisites:* COMM 150 and ENG 214 or equivalents. Communication theory and practice as a means to make connections and to improve the quality of dialogues amongst people with different social discourses and cultural experiences.

**COMM 544 Communication and Aging (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Cultural constructions of aging, impact of aging on communication, communication in contexts involving and impacting older adults.

**COMM 550 Classical Rhetoric (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Rhetorical theory, concepts, and practices of Pericles, Demosthenes, Isocrates, Plato, Aristotle, Cicero, and Quintilian.

**COMM 561 Social Semiotics - GVAR (4)**

*Prerequisites:* COMM 150; ENG 214 or equivalent with a grade of C or better; upper division standing in COMM major. Enrollment priority to students who have not yet met the GVAR. Social functions of language and symbolism in everyday life. Analyses of how meaning is constituted and communicated through the use of symbols in social and cultural practices. ABC/NC grading only.

**COMM 561 Social Semiotics (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Social functions of language and symbolism in everyday life. Analyses of how meaning is constituted and communicated through the use of symbols in social and cultural practices.

**COMM 562 Discourse in Interaction (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Theoretical foundations for analyzing discourse in interaction; frequently studied, recurrent structures in discourse in a variety of settings.

**COMM 562 GW Discourse in Interaction - GVAR (4)**

*Prerequisites:* COMM 150 or equivalent; ENG 214 or equivalent with grade of C or better; enrollment priority to junior/senior level COMM majors. Theoretical foundations for analyzing discourse in interaction; frequently studied, recurrent structures in discourse in a variety of settings.

**COMM 563 Conversational Analysis (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Examination of research findings on conversations, including the study of such topics as: pragmatic rules, power, manipulation, topic management, politeness, emotional discourse, rituals, and storytelling. Methods for collecting, transcribing, and analyzing naturally occurring conversations.

**COMM 570 Human Communication and New Technologies (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. How technologies such as teleconferencing, telecommunication, computer conferencing, videotexts, electronic mail, etc., will affect human communication. Issues of trust, synchrony, privacy, and electronic style.

**COMM 661 Communication Research Strategies (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM/CAD majors. Basic empirical research skills; design of studies, analysis of data, and preparation of research reports. Practical applications of research.

**COMM 662 Communication Criticism (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Methods of rhetorical criticism and examination of the forms of rhetorical acts. Purpose and process of criticism: traditional approach, dramatic approach, fantasy theme approach, narrative approach, cultural approach, and content analysis.

**COMM 663 Qualitative Methods in Communication and Performance (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Human communication through the performance of materials gathered from everyday life. Techniques for collecting naturally occurring conversations and conducting oral history interviews which are adapted for individual and group performances.

**COMM 664 Research Methods in Language and Social Interaction (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Methods for exploring verbal and nonverbal communication behaviors in language and social interaction. Transcription and analysis of everyday face-to-face talk. Data analysis methods include conversation analysis, ethnomethodology, speech acts, and gesture analysis.

**COMM 681 Voice and Articulation Theory and Practice (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Skills in articulation and voice expressiveness are learned through theory (how the speech mechanism operates most effectively to produce sound) and practice (maximizing the quality of the speaker's natural articulation and voice in exercises and performance).

**COMM 685 Projects in the Teaching of Communication (1-4)**

*Prerequisites:* Grade of B or better in the course (or equivalent) in which the student will be aide, and consent of instructor. Students learn more about a previously studied topic in communication and about pedagogical strategies for sharing that knowledge. Repeatable to 4 units total.

**COMM 695 Internship/Service Learning in Communication Studies (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Placement in a profit/non-profit agency for professional development and integration of pedagogy with field experience. Journal/reflection paper and conferences with the coordinator required. May be repeated for a total of 8 units; however, only 4 units may be counted in the major.

**COMM 696 Ensemble Performance Workshop (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Focus on presentation of original and adapted texts for performance, including textual and audience analysis, direction, and use of physical spaces. Additional meetings outside class required for rehearsals and performances. May be repeated for a total of 8 units.

**COMM 697 Advanced Performance Study (4)**

*Prerequisites:* COMM 150 and ENG 214 or equivalents; enrollment priority to upper division COMM majors. Seminar in performance studies, including the performance of literary and ethnographic texts. Emphasis on presenting and critiquing performances inside and outside the classroom.

**COMM 699 Special Study (1-4)**

*Prerequisites:* Upper division standing, consent of major adviser and supervising faculty member, and GPA of 3.0. Supervised study in communication planned and completed under the direction of a member of the department. Repeatable for credit to total 8 units. Enrollment by petition.

## Graduate Courses

**COMM 700 Introduction to Graduate Study (4)**

*Prerequisite:* graduate standing or consent of instructor. Research and research methodologies. Language and tools for controlled and systematic investigation of speech communication phenomena.

**COMM 721 Seminar in Rhetorical and Communication Theory (4)**

*Prerequisite:* graduate standing or consent of instructor. Issues in rhetorical and communication theory and practice from the classical period to the present.

**COMM 725 Seminar in Sexual Identity and Communication (4)**

*Prerequisite:* graduate standing or consent of instructor. How sexual identities are created, shaped, produced, reproduced, maintained, changed, contested, and challenged through communication practices. Social, cultural, and historical contexts. Interpersonal and mass media contexts. (Cross listed with SXS 810. May not be repeated under alternate prefix.)

**COMM 731 Seminar in Communication and Social Criticism (4)**

*Prerequisite:* graduate standing or consent of instructor. Contemporary persuasion, propaganda, social control, political leadership, and the rhetorical dimensions of social events.

**COMM 740 Seminar in Interpersonal Communication (4)**

*Prerequisite:* graduate standing or consent of instructor. Intra- and interpersonal variables necessary to the understanding of human interaction including both verbal and non-verbal phenomena.

**COMM 742 Seminar in Group Communication Theory and Practice (4)**

*Prerequisite:* graduate standing or consent of instructor. Analysis of group communication theories and research, identification and evaluation of group networks, leadership styles, conflict management, and observation methodologies.

**COMM 745 Seminar in Gender and Communication (4)**

*Prerequisite:* graduate standing or consent of instructor. Theory and research regarding the role of gender in communication. Examination of such factors as manifestations of power, politeness, intimacy, and play in the communication styles of females and males.

**COMM 750 Seminar in Communication and Culture (4)**

*Prerequisite:* graduate standing or consent of instructor. Theories and methodologies appropriate to the study of communicative styles within, between, and among cultural groups and across gender lines and their effect on intergroup contact.

**COMM 751 Intercultural Communication Training (4)**

*Prerequisite:* graduate standing or consent of instructor. Assessing organizational needs to improve relationships among cultural groups; designing, delivering, and evaluating training programs to provide skills to improve intercultural relations.

**COMM 760 Seminar in Organizational Communication (4)**

*Prerequisite:* graduate standing or consent of instructor. Theories, research methods, and practices or organizational communication and development from the perspective of the process consultant. A case study report based on personal experience in an organization setting is required.

**COMM 761 Seminar: Corporate Communication (4)**

*Prerequisite:* graduate standing or consent of instructor. Explores the public level of organizational communication. Focus on symbolic implications and speech perspective of corporate communication methods including image molding, identity shaping, recognition building, reputation enhancement, and advocacy strategies.

**COMM 780 Studies in Contemporary Theory (4)**

*Topic to be specified in Class Schedule.* May be repeated when topics vary.

**COMM 797 Performance Theory and Practice in Communication (4)**

*Prerequisite:* graduate standing or consent of instructor. Practicum in performance studies, including performance of literature, performance ethnography, and other performance theories. Emphasis on gaining experience in creating performances in response to theory in multiple contexts.

**COMM 850 Teaching Communication (4)**

*Prerequisite:* graduate standing or consent of instructor. Assessing student learning needs, designing instructional units and objectives, evaluating performances, and reviewing theories of interpersonal, group and public communication.

**COMM 851 Internship in Teaching Communication (2)**

*Prerequisite:* graduate standing or consent of instructor. Concepts of effective oral communication, techniques for evaluating/diagnosing proficiency, materials/teaching methods for basic courses in classroom setting under direction of an experienced instructor. CR/NC grading only.

**COMM 852 Supervision of Teaching Communication (1)**

*Prerequisite:* graduate standing or consent of instructor. Supplements teaching experience with appropriate supervision and training in curriculum, teaching techniques, grading procedures, etc. Repeatable once for credit. CR/NC grading only.

**COMM 855 Coaching Forensics (4)**

*Prerequisite:* graduate standing or consent of instructor. Coaching/teaching undergraduate forensics for speech and debate competition. Value debate theory, with research to assess this theory in forensic practice. May include field research off campus for 2 or 3 weekends.

**COMM 871 Communication Research Strategies (4)**

*Prerequisite:* graduate standing or consent of instructor. Basic empirical research skills in communication; design of studies, computer analysis of data, and preparation of research reports.

**COMM 872 Field Research Strategies (4)**

*Prerequisite:* graduate standing or consent of instructor. Ethnographic approach to communication through the use of a variety of qualitative methods including participant/observation, interviewing, conversation analysis, and unobtrusive measures.

**COMM 873 Research Strategies in Language and Social Interaction (4)**

*Prerequisite:* graduate standing or consent of instructor. Methods for collecting recordings of interaction; foundations for analyzing such recordings for graduate level research projects.

**COMM 885 Graduate Projects in the Teaching of Communication (4)**

*Prerequisites:* Grade of B or better in the course or its equivalent in which the student will be an aide; consent of instructor. An application of previously acquired knowledge through assisting instruction and learning pedagogical strategies. May be repeated for a total of 8 units.

**COMM 894 Creative Work Project (3)**

*Prerequisite:* advancement to candidacy for the master's degree, 3.5 GPA, and recommendation of major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**COMM 896 Directed Readings in Communication Studies (3)**

*Prerequisites:* Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms approved by adviser/departments chair prior to registration. Texts and topics in speech communication, based on departmental reading list and student's areas of emphasis, in preparation for Comprehensive Written Examination. Not open to M.A. candidates selecting thesis option or creative project option. CR/NC grading only.

**COMM 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the master's degree, 3.5 GPA, and recommendation of major adviser. Intensive, systematic study of significant topic in communication studies. Graduate Approved Program (GAP) and Proposal for Culminating Experience forms must be approved by Graduate Division. CR/NC grading only.

**COMM 899 Advanced Problems for Investigation in Communication Studies (1-4)**

*Prerequisites:* Consent of graduate major adviser and supervising faculty member; 3.25 GPA. Study is planned, developed, and completed under the direction of a member of the faculty. Open only to graduate students of demonstrated ability to do independent work. Enrollment by petition.

**COMMUNICATIVE DISORDERS**

## Undergraduate Courses

**C D 300 Human Communicative Disorders (3) [GE]**

*Prerequisite:* upper division status. Communicative development and disorders; processes and models; language universals; bases of language; speech, language, and hearing impairments; family and cultural influences; bilingualism and dialectal variations; evaluation of communicative effectiveness. Intended for non-CD majors.

**C D 651 Anatomy and Physiology of the Speech Mechanism (3)**

*Prerequisites:* CD 668 and communicative disorders major (CD 668 may be concurrent). Normal structures and functioning of respiration, phonation, resonance, and articulation.

**C D 652    Audiology (3)**

*Prerequisites:* C D 651 and communicative disorders major (C D 651 may be concurrent). Structure and function of the ear; sound related to hearing mechanism; causes, implications, and techniques of determination of hearing impairment.

**C D 653    Fluency and Voice Disorders (3)**

*Prerequisite:* C D 651. Causes of stuttering, current theories and therapies relative to stuttering in children and adults. Habilitation and rehabilitation of children and adults with organic and nonorganic voice disorders.

**C D 654    Audiometry (3)**

*Prerequisite:* C D 652 and communicative disorders major. Pure tone and bone conduction hearing testing. Masking, immittance testing, electrophysiological testing, pediatric audiometry, speech audiometry and public school hearing/conversation programs.

**C D 655    Dynamics of Communication Development (3)**

*Prerequisite:* upper division standing. Psychosocial and sociological determinants of communication. Theories of language development; understanding the language acquisition process of verbal and non-verbal communication. Intended for non-CD majors.

**C D 656    Diagnosis of Communicative Disorders (3)**

*Prerequisites:* C D 658, 668, and communicative disorders major. Diagnosis of communicative disorders. Observation, language sample analysis, and distinctive feature analysis.

**C D 658    Communication Development and Disorders (3)**

*Prerequisites:* C D 668 and communicative disorders major. Language acquisition, disorders and their causes in school age children. Application of diagnostic and intervention techniques.

**C D 659    Articulatory and Phonological Disorders (3)**

*Prerequisites:* C D 651, COMM 410, and communicative disorders major. Disordered articulation; accent/dialectal differences; normal phonological processes; phonological disorders and distinctive features. Practicum for diagnosis and therapy for articulation, phonological, and accent problems.

**C D 660    Communicative Disorders (3)**

*Prerequisites:* C D 651 and communicative disorders major (C D 651 may be concurrent). Voice disorders, adult neurogenic disorders, stuttering, cerebral palsy, and cranio-facial anomalies. Etiology, pathology, diagnosis, and intervention techniques.

**C D 661    Neurolinguistics (3)**

*Prerequisites:* C D 651, 652, 660, and 668 and communicative disorders major. Cortical and sub-cortical components of language processing; current research on the central nervous system and its application to speech, language, and hearing.

**C D 663    Introduction to Augmentative/Alternative Communication (3)**

*Prerequisite:* C D 658, 668 and communicative disorders major (C D 658 may be concurrent). Introduction and applied experiences with augmentative and alternative communication, including low- and hi-tech systems. Assessment, team collaboration, funding and use of AAC such as designing systems that meet functional communication needs. [CSL may be available; consult index for page reference.]

**C D 664    Clinical Phonetics (3)**

*Prerequisites:* upper division or graduate standing; CD 651 and 668. Speech sounds of American English and the development of phonology. IPA transcription experience applied with regard to human diversity. Not open to students who have taken COMM 410. Plus-minus letter grade only.

**C D 668    Language Acquisition and Development (3)**

*Prerequisite:* C D 651 communicative disorders major (C D 651 may be concurrent). Exploration of the acquisition patterns of normal speech, language, and pragmatic behaviors. Theories of language development, phonology, morphology, syntax, and semantics. Language analysis with typically developing children.

**C D 680    Practicum in Communication Therapy (2)**

*Prerequisites:* communicative disorders major and concurrent enrollment in C D 711 or C D 713. Supervised clinical experiences in communication rehabilitation for communicative disorders. May be repeated for a total of 10 units. Type of experience and number of units determined by advisement.

**C D 699    Special Study in CD (1-3)**

Study of a particular problem under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open to regularly enrolled students only.

**Graduate Courses****C D 701    Language Differences and Disorders in Children (3)**

*Prerequisite:* admission to C D program or consent of instructor. Language disorders and differences in children. Verbal, written, signed, and other symbolic disorders; oral communication. Etiology, diagnosis, and assessment of differences and disorders; intervention strategies.

**C D 705    Seminar in Aural Rehabilitation (3)**

*Prerequisite:* CD 652, CD 654 and admission to graduate program in Communicative Disorders. Psychological, educational, and sociological implications of hearing loss. Aural rehabilitation: speech reading, auditory training, amplification, and speech conservation and/or improvement.

**C D 706    Counseling in Communicative Disorders (3)**

*Prerequisite:* C D 701, C D 708, C D 709, C D 768. Counseling of communicatively disordered individuals and their families. Theories and methods as they apply to the unique disorder. Experimental opportunities for analyzing individual counseling processes.

**C D 707    Advanced Seminar in Language Disorders in Children (3)**

*Prerequisites:* admission to C D program; C D 701 or consent of instructor. Assessment, intervention, and organizational procedures for use with classes that include children of various ages with language disorders.

**C D 708    Neurogenic Disorders of Language (3)**

*Prerequisite:* admission to C D program or consent of instructor. Assessment and rehabilitation of adults who have neurogenic disorders of language. Aphasia, right hemisphere damage, traumatic head injury, and dementia.

**C D 709    Seminar in Motor Speech Disorder (3)**

*Prerequisite:* CD 651, CD 653, CD 661, and admission to CD graduate program. Differential diagnosis and management of motor speech disorders in children and adults, including the dysarthrias and apraxia of speech.

**C D 710    Seminar in Dysphagia (3)**

*Prerequisite:* CD 651, CD 661, and admission to the graduate program. Nature, etiology, and physiology of normal and abnormal patterns of swallowing across the life span, with emphasis on adult population. Clinical swallowing assessment, modified barium swallow study and therapeutic intervention for dysphagia. Treatment and clinical decision-making emphasized.

**C D 711    Seminar in Therapy for Functional Communicative Disorders (3)**

*Prerequisites:* admission to graduate program and CD 650 or equivalent; graduate major only; must be taken concurrently with CD 880. Communication therapy, functional speech and language disorders: articulation, delayed speech, and stuttering. Repeated with variable clinic experiences. Units co-vary with frequency of client-staff conference and time delivering more complex therapeutic treatment. May be repeated for 3-9 units. Plus-minus letter grade only.

**C D 711    Seminar in Therapy for Functional Communicative Disorders (1)**

*Prerequisites:* admission to graduate program and CD 650 or equivalent; graduate major only; must be taken concurrently with CD 880. Communication therapy, functional speech and language disorders: articulation, delayed speech, and stuttering. Repeated with variable clinic experiences. Units co-vary with frequency of client-staff conference and time delivering more complex therapeutic treatment. May be repeated for 3-9 units. Plus-minus letter grade only.

**C D 712    Seminar in Therapy for Aural Disability in Communicative Disorders (1)**

*Prerequisites:* admission to C D program, C D 652, and C D 653. Must be taken concurrently with C D 880. Communication therapy with aural disability.

**C D 713    Seminar in Therapy for Organic Communicative Disorders (1)**

*Prerequisites:* admission to graduate program and CD 663 or equivalent; graduate major only; must be taken concurrently with CD 880. Communication therapy with speech and language disorders resulting from central nervous system or organic dysfunction. Repeated with variable clinic experiences. Units co-vary with frequency of client-staff conferencing and more complex therapeutic treatment. May be repeated for 3-9 units. Plus-minus letter grade only.

**C D 713    Seminar in Therapy for Organic Communicative Disorders (3)**

*Prerequisites:* admission to graduate program and CD 663 or equivalent; graduate major only; must be taken concurrently with CD 880. Communication therapy with speech and language disorders resulting from central nervous system or organic dysfunction. Repeated with variable clinic experiences. Units co-vary with frequency of client-staff conferencing and more complex therapeutic treatment. May be repeated for 3-9 units. Plus-minus letter grade only.

**C D 715    Clinical/Rehabilitative Experience in the School (5)**

*Prerequisite:* consent of adviser. Must be taken concurrently with C D 725. Clinical/rehabilitative experience with language, speech, and/or hearing handicapped children in school settings. Open only to credential candidates who have completed prerequisites. CR/NC grading only.

**C D 715 Clinical/Rehabilitative Experience in the School (8)**

*Prerequisite:* consent of adviser. Must be taken concurrently with C D 725. Clinical/rehabilitative experience with language, speech, and/or hearing handicapped children in school settings. Open only to credential candidates who have completed prerequisites. CR/NC grading only.

**C D 716 Student Teaching: Severe Language Disabilities (4)**

*Prerequisites:* C D 707 and consent of adviser. Student teaching children with severe language handicaps. Open only to credential candidates who have completed prerequisites.

**C D 725 Student Teaching Workshop: Communication Disabilities (1)**

*Prerequisite:* consent of adviser. Must be taken concurrently with C D 715. Approaches to evaluation, therapy, and guidance for language and speech disabled children in public schools. Practical problems encountered in the clinical/rehabilitative experience.

**C D 750 English Language Learning and Exceptionality (3)**

Examination and analysis of the processes of bilingual language acquisition; theories and techniques of assessment and intervention, situated within the contexts of home, classroom, family and community; home- and classroom-based strategies for the speech-language pathologist and classroom teacher.

**C D 756 Advanced Diagnosis of Communicative Disabilities (3)**

*Prerequisite:* C D 708 or consent of adviser. Selection of assessments applicable to the diagnosis of communicative disorders. Proficiency in assessment tools and interpretation of results.

**C D 768 Advanced Clinical Skills (3)**

*Prerequisites:* admission to C D program; C D 668, or consent of instructor. Analysis of fundamental, transitional, and complex skills that have been shown to positively effect treatment outcomes in the practice of speech-language therapy.

**C D 880 Advanced Communication Therapy (2)**

*Prerequisites:* C D 668 or equivalent. Supervised clinical methods and practice in communication rehabilitation. May be repeated for a total of 10 units.

**C D 881 Internship in Communicative Disorders I (3)**

*Prerequisite:* consent of major adviser. Pre-internship in practicum settings: hospitals, private and public service agencies providing audiology and speech pathology therapies.

**C D 882 Internship in Communicative Disorders II (3-6)**

*Prerequisites:* consent of adviser. Practicum in hospital or agency settings.

**C D 884 Advanced Diagnosis in Communicative Disorders (3)**

*Prerequisites:* 4 units of C D 880, C D 756, and consent of clinic supervisor. Supervised clinical diagnosis of communicative disorders.

**C D 899 Special Study (1-3)**

An intensive study of a particular problem in communicative disorders under direction of a member of the department. Enrollment by petition. Open to regularly enrolled students only.

**COMPARATIVE AND WORLD LITERATURE***Undergraduate Courses***CWL 230 World Literature (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Literary classics of the world, their cultural backgrounds, and their place in the history of ideas, from a variety of genres and national literatures.

**CWL 250 Fables and Tales (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Development from folklore and parable of the fable and the tale. Narrative forms such as the animal fable, fairy tale, and remarkable voyage; central themes and techniques in the tradition of didactic and fantastic fiction.

**CWL 260 Myths of the World (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Different mythologies, their interpretation and significance to world literature.

**CWL 270 Fantasy and Fiction: Exploring Parallel Worlds (3)**

*Prerequisite:* first year composition or equivalent. Exploration of dreams, parallel worlds, and alternate realities in novels from a variety of traditions, cultures, and dimensions of reality; examination of relationship of fantasy, reality, and literary representation.

**CWL 400 Approaches to Comparative Literature - GVAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C- or better. Gateway to undergraduate study in comparative literature. Active comparison of texts from multiple literary traditions and genres using a variety of methods. Introduction to the discipline and to critical theory. Writing intensive.

**CWL 420 Studies in Comparative Literature (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**CWL 421 Celtic Literature (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Literary traditions of culturally diverse Celtic world from earliest legends of gods, heroes, warriors, and saints to modern literature; texts may include traditions such as Irish, Welsh, Scottish, Breton and Manx. CWL 423 Comparative Medieval European Literature (3)

*Prerequisite:* ENG 214 or equivalent. A survey of the major genres of Medieval European vernacular writing in translation, including epic, romance, tale collections, and lyric poetry.

**CWL 424 Multicultural Middle Ages (3)**

*Prerequisites:* ENG 214 or equivalent. A survey of medieval European representations of the Islamic world, as reflected in the major genres of epic, romance, tale collections, travel writing, and lyric poetry.

**CWL 425 Individual Authors (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in Class Schedule. May be repeated when different authors are studied.

**CWL 430 Heroic Tales of the Mediterranean (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Heroic narratives, in poetry and prose, provide the means for examining aspects of the ancient, medieval, and modern cultures of the eastern Mediterranean and Near East.

**CWL 432 From Ghost Stories to Video Games: Japanese Fiction in Comparative Contexts (3)**

*Prerequisite:* ENG 214 or equivalent. Examination of formal transformations in Japanese prose fiction through comparison with other literary traditions; focus on questions of tradition, influence, genre, and translations. (Cross listed with HUM 532. May not be repeated under alternate prefix.)

**CWL 437 Holocaust and Literature (3) [GE]**

*Prerequisite:* ENG 214. Cross listed with JS 437/ENG 533. For course description, see JS 437. (May not be repeated under alternate prefix.)

**CWL 440 Typical American: Narratives of Multiculturalism in the Americas from 1492 to the Present (3)**

*Prerequisite:* ENG 214 or equivalent. Understanding of narrative in the Americas through historical and hemispheric comparison of multicultural literary texts; interplay between community and individual identity from 1492 to the present.

**CWL 451 Jewish Literature of the Americas (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with JS/ENG 451. For course description, see JS 451. (May not be repeated under alternate prefix.)

**CWL 465 Modern Greek Poetry in Comparative Perspective (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with MGS/CW 465. For course description, see MGS 465. (May not be repeated under alternate prefix.)

**CWL 690 Editing and Publishing the Comparative Literature Journal (1-3)**

*Prerequisite:* major/minor in comparative literature or department consent. Supervised experience in editing and production of journal of student work. Credit not applicable to major/minor fields in comparative literature. Paired with CWL 890. CWL 690 and 890 may be repeated for a combined total of 6 units. CR/NC grading only.

**CWL 697 Honor's Thesis (3)**

*Prerequisites:* major in comparative literature and consent of department. Tutorial leading to an honor's project or thesis on special research topic to be determined jointly by student and faculty member. CR/NC grading only.

**CWL 699 Special Study (3)**

*Prerequisites:* consent of the department chair and instructor. Projects requiring critical study and analysis of advanced material adapted to individual needs and interests.

**Graduate Courses****CWL 746 Seminar: Opera and Literature (3)**

*Prerequisite:* ENG 741 (may be taken concurrently) or consent of instructor. Also offered as ENG 746. For course description, see ENG 746. (May not be repeated under alternate prefix.)

**CWL 800 Introduction to Graduate Study in Comparative Literature (3)**

*Prerequisite:* classified graduate status in comparative literature or consent of instructor. Methodology and definitions of comparative literature; critical theory of literature as it relates to comparative studies.

**CWL 815 Seminar: Topics in Critical Theory (3)**

*Prerequisite:* classified graduate status or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 9 units when topics vary.



**CWL 820 Topics in Comparative Literature (3)**

*Prerequisite:* graduate status or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 9 units when topics vary.

**CWL 825 Advanced Study in Comparative Literature (3)**

*Prerequisite:* CWL 800. Synthesizing prior knowledge about theory and practice of comparative literature; developing scholarly and professional skills for culminating experience and beyond; exploring post-M.A. paths.

**CWL 890 Editing and Publishing the Comparative Literature Journal (1-3)**

*Prerequisite:* major/minor in comparative literature or department consent. For course description, see CWL 690. Credit not applicable to major/minor fields in comparative literature. Paired with CWL 690. CWL 690 and 890 may be repeated for a total of 6 units. CR/NC grading only.

**CWL 896 Directed Reading in Comparative Literature (3)**

*Prerequisites:* approved ATC and culminating experience proposal. Supervised study based on departmental reading list and student's specialty area in preparation for the Comprehensive Oral Examination. Not open to M.A. candidates selecting the thesis option. CR/NC grading only.

**CWL 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the Master of Arts and recommendation of major adviser. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**CWL 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member. Study is planned, developed, and completed under the direction of a member of the department. Open only to graduate students of demonstrated ability to do independent work. Enrollment by petition (form available in the department office).

**COMPUTER SCIENCE**

See also *Mathematics*, particularly MATH 400 and 890. Students are advised that most computer science classes require homework done on the university's computers. This generally requires spending time outside class at the various computing facilities.

*Undergraduate Courses***CSC 101 Computers for Everyone (3)**

Comprehensive and basic overview of computers and their use for everyday tasks such as information retrieval, Internet, writing, presentations, communication, Web publishing, e-commerce, entertainment, computation. No prior knowledge required.

**CSC 203 JAVA Programming (3)**

*Prerequisite:* CSC 210 or consent of instructor. JAVA language and object oriented programming. Use of inheritance, polymorphism, exception handling and libraries; JAVA applets and GUI development using Swing.

**CSC 208 C++ for Java Programmers (1)**

*Prerequisites:* completed Java programming courses or consent of instructor. (May take CSC 313 concurrently.) Hands-on exercises in C++ programming. Emphasize features common to C++ and Java and features unique to C++. (CR/NC grading only.)

**CSC 210 Introduction to Computer Programming (3)**

*Prerequisite:* MATH 226 with grade of C or better. Design, implementation, testing, debugging, maintenance, and documentation of programs. Algorithms, programming concepts, and data types. Concepts of object-oriented programming; numerical and non-numerical problems. Required of computer science majors and minors. Concurrent enrollment in CSC 211 recommended.

**CSC 211 Introduction to Software Lab (1)**

Hands on exercises in programming, and use of basic SW development tools. Covers procedural, object oriented, C++, and JAVA programming. Strongly recommended for CSC 210 students, and others needing hands on experience; concurrent enrollment in CSC 210 recommended. Students are encouraged to bring their own laptops. CR/NC grading only. May be repeated for 3 units for degree credit.

**CSC 220 Data Structures (3)**

*Prerequisite:* grade of C or better in MATH 227 and CSC 210. Linear and non-linear data structures, including lists, stacks, queues, trees, tables and graphs. Recursion, iteration over collections, sorting, searching, Big O notation and hash table.

**CSC 230 Discrete Mathematical Structures for Computer Science (3)**

*Prerequisite:* grade of C or better in CSC 210 and MATH 227. Review of set algebra, relations and functions; permutations; propositional logic; proof techniques; introduction to graph theory; infinite sets; applications to computer science.

**CSC 256 Machine Structures (3)**

*Prerequisite:* CSC 230 or CSC 330 with grade of C or better. Digital logic circuits; data representation; assembly language programming; subroutine linkage; machine language encoding; interrupt/exception handling; memory system concepts; CPU organization and performance.

**CSC 300 Ethics, Communication and Tools for Software Development - GVAR (3)**

*Prerequisite:* CSC 210; ENG 214 or equivalent with grade of C or better; computer science majors only. Privacy, security, legal and ethical issues in Software development. Communication relevant to SW development (reports, contracts, requirements, documentation, collaboration, e-mail, presentations). Study and use of basic tools for SW development and collaboration.

**CSC 306 Computing for Biologists (3)**

*Prerequisite:* upper division standing or consent of instructor. Basics of using computers in the biological sciences. Covers networking, file systems, UNIX, basics of programming, Perl, Python.

**CSC 307 Web and Database for Biologists (3)**

*Prerequisite:* upper division standing or consent of instructor. Basics of computer and WWW engineering relevant to studies of biological sciences; basics of developing web and database applications. HTML, XML, CGI, database queries, MySQL database.

**CSC 309 Computer Programming for Scientists and Engineers (3)**

*Prerequisites:* MATH 226 or consent of instructor. Procedural programming in C for scientific applications. Good programming practices and basic numerical and nonnumerical algorithms for scientists and engineers.

**CSC 317 Introduction to Web Software Development (3)**

*Prerequisites:* CSC 201 or CSC 210 or consent of instructor. Introduction to development of web apps: client, web server and back-end database. Installation of: Apache Web Server, PHP processor, MySQL database. Develop a simple e-commerce application.

**CSC 340 Programming Methodology (3)**

*Prerequisite:* grades of C or better in CSC 213 or 220; and CSC 230 or 330. Advanced data structures and algorithms for manipulation in C++; emphasis on design and implementation; practical applications; algorithms for sorting, searching, and graphs.

**CSC 412 Advanced Software Lab (1)**

*Prerequisite:* CSC 220; concurrent enrollment in CSC 415 recommended. Hands on exercises in advanced programming, software development tools and web technologies. Students are encouraged to bring their own laptops. May be repeated for 2 units.

**CSC 413 Software Development (3)**

*Prerequisites:* grade of C or better in CSC 313 or CSC 340. Modern software applications. Object-oriented techniques: encapsulation, inheritance, and polymorphism as mechanism for data design and problem solution. Software design, debugging, testing, and UI design. Software maintenance. Software development tools. Extra fee required. Plus-minus letter grade only.

**CSC 415 Operating System Principles (3)**

*Prerequisites:* MATH 324, PHYS 230, CSC 310 or CSC 256, and CSC 313 or CSC 340, with grades of C or better. Operating system concepts: concurrent processes, basic synchronization techniques, deadlock, memory management, file systems, security, networks, distributed processing. Extra fee required.

**CSC 510 Analysis of Algorithms I (3)**

*Prerequisites:* CSC 313 or CSC 340, MATH 324, and MATH 325 with grades of C or better. Notions of main algorithm design method. Measures of algorithm complexity in space and time. Algorithms of classic problems: sorting and scheduling and complexity analysis of such algorithms.

**CSC 520 Theory of Computing (3)**

*Prerequisites:* CSC 213 or CSC 220, CSC 230 or CSC 330, and MATH 325 with grades of C or better. Automata, formal languages, and the notion of computability. Sequential machines as language acceptors. Context free and context sensitive grammars. Recursive functions, universal Turing machines. Unsolvable problems.

**CSC 600 Programming Language Design (3)**

*Prerequisites:* a grade of C or better in CSC 413. Design concepts for high-level programming languages. Comparative study of several languages and an introduction to grammars and parsing techniques. Extra fee required.

**CSC 615 UNIX Programming (3)**

*Prerequisite:* CSC 415 with grade of C or better, or consent of instructor. Programming in a UNIX environment. Topics include regular expressions; utilities such as awk, sed, grep, csh, sh, ksh; system calls such as signals, sockets, POSIX IPC, and POSIX threads; kernel internal structures. Extra fee required.

**CSC 620 Natural Language Technologies (3)**

*Prerequisite:* CSC 413 with grade of C or better. Natural language parsing technology and grammars. Elements of computational semantics, discourse structure and generation. Survey of related topics such as information retrieval, question-answering, machine translation, speech processing. Paired with CSC 820. Students who have completed CSC 620 may not take CSC 820 for credit. Extra fee required.

**CSC 621 Biomedical Imaging & Analysis (3)**

*Prerequisite:* grade of C or better in CSC 510 and Math 325. Introduction to medical and biological imaging, imaging physics, 3D, image formats, visualization. Basic digital image processing and analysis, filtering, registration, segmentation, quantification, performance evaluation. (Paired with CSC 821. Students who have completed CSC 821 may not take CSC 621 for credit.) (Plus-minus letter grade only.)

**CSC 630 Computer Graphics Systems Design (3)**

*Prerequisites:* CSC 313 or CSC 340 and MATH 325 with grades of C or better. Graphics system design and display hardware architecture. Overview of device-independent graphic systems, 2 & 3 dimensional viewing pipelines, hidden line and surface removal algorithms, raster graphics techniques, and color space models. Web page design and Flash exercises for introduction to animation and multimedia. Course fee required.

**CSC 631 Multiplayer Game Develop (3)**

*Prerequisite:* CSC 413 or consent of instructor. Computer graphics and network characteristics of multiplayer games. Design and development of a game as a team project. Paired with CSC 831. Students who have completed 831 may not take 631 for credit.

**CSC 637 Software Techniques for Computer Music (3)**

*Prerequisite:* CSC 413 with grade of C or better, or consent of instructor. Algorithms and software design for digital audio and computer music. Analysis and synthesis techniques. Real-time control and interaction. (Paired with CSC 737. Students who have completed CSC 737 may not take CSC 637 for credit.) Extra fee required.

**CSC 640 Software Engineering (3)**

*Prerequisites:* CSC 413 with grade of C or better, or consent of instructor. Practical methods and tools for SW engineering, including organizational teamwork. Paired with CSC 848. Students who have completed CSC 848 may not take CSC 640 for credit. Extra fee required.

**CSC 641 Computer Performance Evaluation (3)**

*Prerequisite:* CSC 415 or consent of instructor. Computer performance analysis problems related to system design, selection, and tuning. Modeling using stochastic and operational queuing models. Workload characterization, design, and performance measurement methods. Design of simulation models for computer systems. Paired with CSC 841. Students who have completed CSC 641 may not take CSC 841 for credit. Extra fee required.

**CSC 642 Human-Computer Interaction (3)**

*Prerequisite:* CSC 413 with grade of C or better or consent of instructor. The design, implementation, and evaluation of human/computer interfaces. Topics include interface devices, interface metaphors, interaction styles, User Centered Design, testing, and quality assessment. Extra fee required.

**CSC 644 Computer Measurements (3)**

*Prerequisites:* CSC 413, CSC 415. Software measurement and experimentation tools. Data collection and analysis. Web measurements. Benchmarking and design of benchmarks. Use of software monitors. Extra fee required.

**CSC 645 Computer Networks (3)**

*Prerequisite:* CSC 415 with grade of C or better. Computer network design, evaluation, and testing. Computer network standards and implementation. Hardware/software design and compatibility issues. Paired with CSC 745. Students who have completed CSC 645 may not take CSC 745 later for credit. Extra fee required.

**CSC 650 Secure Networked Systems (3)**

*Prerequisites:* CSC 415 with grade of C or better, or consent of instructor. Analysis, planning, construction, and operation of secure networked computing systems: security for environments within Internet, encryption, assets, risk, authentication, trust, controls, defense, routers, firewalls, law, ethics. Extra fee required.

**CSC 651 System Administration (3)**

*Prerequisites:* CSC 413 and CSC 415 with grades of C or better. User administration. Operating system installation, tuning, and control. Network administration. Security management. Performance tuning and management. Extra fee required.

**CSC 656 Computer Organization (3)**

*Prerequisites:* CSC 415 (may be taken concurrently) or consent of instructor. Instruction set design. Pipelined datapath and control. Cache and memory system design. Input/output subsystems. Parallel processing. Software/hardware interactions. Extra fee required.

**CSC 658 Programming Cafe (3)**

*Prerequisites:* CSC 413 with grade C or better or consent of instructor. Extensive programming practice to advance programming skills and processes; pair programming exercises; code review techniques and practice.

**CSC 664 Multimedia Systems (3)**

*Prerequisite:* CSC 413 with a grade of C or better. Comprehensive topics in multimedia such as basics of image and video processing, compression, multimedia databases, standard, synchronization, formats in perspective of systems and algorithms. Paired with CSC 864. Students who have completed CSC 664 may not take CSC 864 for credit. Extra fee required.

**CSC 665 Artificial Intelligence (3)**

*Prerequisite:* CSC 413 with grade of C or better. Computational methods for studying intelligence. Automated problem solving, heuristic search, planning, inference, natural language processing, and machine learning. Paired with CSC 865. Students who have completed CSC 665 may not take CSC 865 later for credit. Extra fee required.

**CSC 667 Internet Application Design and Development (3)**

*Prerequisite:* CSC 413 with grade of C or better or consent of instructor. Fundamental technologies on which WWW is based. Paired with CSC 867. Students who have completed 867 may not take 667 for credit. Extra fee required.

**CSC 668 Advanced Object Oriented Software Design and Development (3)**

*Prerequisites:* CSC 413 with grade of C or better, senior or graduate standing, or consent of instructor. Object oriented analysis and design utilizing UML, design patterns, frameworks and toolkits; Agile software design processes. Development of a mid-size programming project working in teams. Paired with CSC 868. Students who have completed CSC 668 may not take CSC 868 for credit. Extra fee required.

**CSC 671 Neural Networks (3)**

*Prerequisite:* CSC 510 with grade of C or better. Artificial neural networks: associative memories, learning, search, databases, fuzzy set techniques, pattern recognition, and adaptive processing. Paired with CSC 871. Students who have completed CSC 671 may not take CSC 871 later for credit. Extra fee required.

**CSC 675 Introduction to Database Systems (3)**

*Prerequisite:* CSC 413 with grade of C or better. Relational query languages. Semantic data models. Logical and physical database design. Privacy issues. Implementation techniques (catalogs, query optimization, concurrency control, security and integrity enforcement). Paired with CSC 775. Students who have completed CSC 775 may not take CSC 675 for credit. Extra fee required.

**CSC 693 Cooperative Education Program (6-12)**

*Prerequisite:* A U 293 or consent of instructor. Units do not count toward the major. May be repeated for a total of 24 units. Contact the Cooperative Education office for information. CR/NC grading only.

**CSC 694 Cooperative Education: Computer Science (1-3)**

*Prerequisite:* consent of instructor. Projects undertaken in a business, government, or industrial position of at least one semester's duration. CR/NC grading only.

**CSC 695 Computing in the Community (2)**

*Prerequisites:* junior or senior standing, computer experience, and consent of instructor. Extensive fieldwork training Bay Area non-profit agencies in the use of computer tools such as conferencing and database systems. Development of user documentation. CR/NC grading only.

**CSC 697 Senior Project in Computer Science (3)**

*Prerequisites:* CSC 415 and 510, or CSC 640, or consent of instructor. Culminating experience in individual design, implementation, and professional documentation of a software product under close supervision of a faculty member.

**CSC 699 Special Study (1-3)**

*Prerequisites:* departmental permission and consent of instructor. An approved study proposal must be on file by the time of registration. Library and laboratory research projects. Final report must be approved by the instructor and filed with the department.

**Graduate Courses****CSC 720 Advanced Operating Systems (3)**

*Prerequisites:* satisfaction of Written English Proficiency Level I or concurrent enrollment in SCI 614; CSC 415 with a grade of B or better, or consent of instructor. Analysis of scheduling and memory management algorithms, use of concurrent languages for systems development and distributed systems. Design and implementation of major components of an operating system. Extra fee required.

**CSC 730 Advanced Database Systems (3)**

*Prerequisites:* CSC 413 and CSC 675 with grades of C or better. Standard SQL, query optimization, concurrency control, crash recovery, authorization and integrity enforcement; object-oriented, extensible, deductive, and/or distributed database systems. Extra fee required.

**CSC 745 Computer Networks (3)**

*Prerequisite:* CSC 415 with grade of C or better. For course description, see CSC 645. Paired with CSC 645. Students who have completed CSC 745 may not take CSC 645 for credit. Extra fee required.

**CSC 775 Introduction to Database Systems (3)**

*Prerequisite:* CSC 413 with grade of C or better. For course description, see CSC 675. Paired with CSC 675. Students who have completed CSC 775 may not take CSC 675 for credit. Extra fee required.

**CSC 780 Application Development for Mobile Devices (3)**

*Prerequisites:* CSC 415 with grade of B or better or consent of instructor. Introduction to and comparison of different popular mobile application frameworks; conceptual and hands-on experience in writing mobile applications using native and cross-platform tools. (Plus-minus letter grade only.)

**CSC 810 Analysis of Algorithms II (3)**

*Prerequisites:* passing score on GET or concurrent enrollment in SCI 614; grade of B or better in CSC 510. Review major design strategies. Theory of NP Completeness. Approximation algorithms. On line algorithms. Parallel and distributed algorithms. Algorithms for specific areas of interest. Extra fee required.

**CSC 820 Natural Language Technologies (3)**

*Prerequisite:* CSC 413 with grade of C or better or consent of instructor. For course description, see CSC 620. Requires additional meetings and work. Paired with CSC 620. Students who completed CSC 820 may not take CSC 620 for credit. Extra fee required.

**CSC 821 Biomedical Imaging & Analysis (3)**

*Prerequisite:* graduate standing; grade of C or better in CSC 510 and Math 325, or consent of instructor. Paired with CSC 621. Students who have completed CSC 621 may not take CSC 821 for credit. See CSC 621 for course description.

**CSC 825 Advanced Automata Theory (3)**

*Prerequisite:* : CSC 520 or equivalent. Advanced topics in theoretical computer science and their application to a broad range of areas including bioinformatics, compilers, data and image compression, natural language processing, networking and Web applications. Extra fee required.

**CSC 830 Advanced Computer Graphics (3)**

*Prerequisite:* CSC 630 or consent of instructor. Roster graphics principles and scanning algorithms, pixel fill algorithms, anti-aliasing, clipping, hidden line, and surface display, rendering of surfaces and fractal techniques. Extra fee required.

**CSC 831 Multiplayer Game Development (3)**

*Prerequisite:* CSC 413 or consent of instructor. For description, see CSC 631. Paired with CSC 631. Students who have completed 631 may not take 831 for credit.

**CSC 835 Distributed Systems (3)**

*Prerequisites:* B or better in CSC 415 or consent of instructor. Introduction to the concepts and design of distributed systems. Includes term project in using current middleware technologies. Extra fee required.

**CSC 837 Advanced Sound Synthesis (3)**

*Prerequisites:* grade of B or better in CSC 635 or 637, or consent of instructor. Current algorithms and practices in sound synthesis and timbral control for music, sound effects, and interactive environments. Design of real-time software synthesis systems. Extra fee required.

**CSC 840 Software Metrics and Quality Assurance (3)**

*Prerequisites:* CSC 640 or consent of instructor. Measurement and modeling in software engineering. Software performance evaluation methods. Techniques and tools for software quality assurance. Software quality standards. Design and use of software metrics tools. Extra fee required.

**CSC 841 Computer Performance Evaluation (3)**

*Prerequisite:* CSC 415 or consent of instructor. For course description, see CSC 641. Paired with CSC 641. Students who have completed CSC 841 may not take CSC 641 for credit. Extra fee required.

**CSC 842 Advanced Human-Computer Interaction (3)**

*Prerequisite:* classified standing in graduate program. Design, implementation, evaluation of human/computer interfaces. Topics include those covered in CSC 642; however, emphasis is placed on HCI with respect to culminating experience work. Extra fee required.

**CSC 845 Advanced Computer Networks (3)**

*Prerequisites:* CSC 645 and 720, or consent of instructor. MATH 250 strongly recommended. Current design and implementation techniques for development and analysis of high performance network protocols. Strategies appropriate for Internet use (i.e., TCP/IP based). Extra fee required.

**CSC 846 Systems Architecture (3)**

*Prerequisites:* grade of B or better in CSC 656 or consent of instructor. Principles of computer systems architecture with emphasis on hardware/software interactions for large applications and design for performance. Extra fee required.

**CSC 848 Software Engineering (3)**

*Prerequisites:* CSC 413 with grade of C or better; or consent of instructor. Paired with CSC 640. For course description, see CSC 640. Students who have completed CSC 640 may not take CSC 848 for credit. Extra fee required.

**CSC 849 Information Retrieval (3)**

*Prerequisite:* CSC 848 or consent of instructor. Software engineering methods and tools for representation, storage, organization of, and access to information items. Retrieval modeling and evaluation. Query languages. Searching Web and digital libraries. Extra fee required.

**CSC 856 Advanced Computer Architecture (3)**

*Prerequisite:* satisfaction of Written English Proficiency Level I or concurrent enrollment in SCI 614; a grade of B or better in CSC 656 or consent of instructor. Advanced pipelining. Instruction level parallelism. Advanced memory system design. Compiler techniques for performance. New technologies/applications. Extra fee required.

**CSC 857 Bioinformatics Computing (3)**

*Prerequisites:* graduate standing in science program, CSC 858, or consent of instructor. Broad range of topics in computational biology as practiced in the life science industry and leading research organizations. Provides computational background required to participate in R&D. Extra fee required.

**CSC 858 Biology for Scientists and Engineers (3)**

*Prerequisites:* graduate student in science program in the College of Science and Engineering. Basics of biological science relevant to studies in computer science, mathematics, physical sciences, and engineering. Background in life sciences not required. Emphasis on macromolecules, genetics, genomics, development and systems biology.

**CSC 864 Multimedia Systems (3)**

*Prerequisite:* CSC 413 with a grade of C or better. For course description, see CSC 664. Paired with CSC 664. Students who have completed CSC 664 may not take 864 for credit. Extra fee required.

**CSC 867 Advanced Internet Application Design and Development (3)**

*Prerequisites:* CSC 413 with a grade of C or better or consent of instructor. For course description, see CSC 667. Paired with CSC 667. Students who have completed 667 may not take CSC 867 for credit.

**CSC 868 Advanced Object Oriented Software Design and Development (3)**

*Prerequisites:* CSC 413 or consent of instructor. For course description, see CSC 668. Paired with CSC 668. Students who have completed CSC 668 may not take CSC 868 for credit. Extra fee required.

**CSC 869 Data Mining (3)**

*Prerequisites:* grade of C or better in CSC 510, CSC 675, or consent of instructor. Knowledge discovery process; basic data mining concepts; key mining algorithms, data mining in practical domains such as bioinformatics.

**CSC 870 Computational Discrete Geometry (3)**

*Prerequisites:* CSC 210, CSC 330, MATH 325, or consent of instructor. Cross listed with MATH 870. For course description, see MATH 870. (May not be repeated under alternate prefix.) Extra fee required.

**CSC 871 Neural Networks (3)**

*Prerequisite:* grade of C or better in CSC 410. For course description, see CSC 671. Paired with CSC 671. Students who have completed CSC 671 may not take CSC 871 for credit. Extra fee required.

**CSC 872 Pattern Analysis and Machine Intelligence (3)**

*Prerequisites:* grades of C or better in CSC 510 and CSC 520 or consent of instructor. Foundation of pattern analysis and machine intelligence. Artificial intelligence: agent, logic, search. Machine learning: Bayesian classification. Neural network: simulated annealing. Imaging: image segmentation, object recognition.

**CSC 875 Advanced Topics in Database Systems (3)**

*Prerequisites:* CSC 675 with grade of C or better. Advanced aspects of selected topics in database systems. Topics depend on availability of staff and facilities. May be repeated for a total of 6 units when topics vary.

**CSC 876 Soft Computing and Decision Support (3)**

*Prerequisite:* CSC 665 or consent of instructor. Fuzzy sets, rough sets, and fuzzy logic. Approximate reasoning. Possibility theory. Fuzzy controllers. Multicriteria decision making. Continuous preference logic. LSP method for evaluation and optimization. Decision engineering methods and applications.

**CSC 890 Graduate Seminar (1-3)**

*Prerequisite:* consent of graduate adviser. Topic to be specified in Class Schedule. May be repeated when topics vary. The 1 unit version is offered each semester as a graduate research seminar that students must complete prior to CSC 895/898.

**CSC 893 Supervised Industrial Research (1)**

*Prerequisite:* consent of instructor. Supervised computer science employment in software research and development area. Objectives are career development and occupational experience. May be repeated for a total of 3 units. Subsequently, may be repeated on CR/NC basis. Must be approved by graduate adviser.

**CSC 895 Applied Research Project (3)**

*Prerequisite:* consent of graduate coordinator and advancement to candidacy for the MS in CS. Advancement to candidacy and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. (CR/NC grading only.)

**CSC 897 Research (3-6)**

*Prerequisite:* consent of Computer Science Department. Independent and original investigation under supervision of a faculty member. May be repeated for a total of six units.

**CSC 898 Master's Thesis (3)**

*Prerequisites:* consent of graduate adviser and advancement to candidacy for the Master of Science in Computer Science. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**CSC 899 Special Study (1-3)**

*Prerequisites:* approval of the department and the instructor. Special study of a particular problem under the direction of a faculty member. The student must present a written, detailed report of the work accomplished to the staff of the department.

**CONSUMER AND FAMILY STUDIES***Undergraduate Courses***CFS 312 GW Families, Individuals, and Environments-GWAR (3)**

*Prerequisite:* ENG 214 or equivalent with grade of C- or better; enrollment limited to CFS majors. Family Consumer Sciences through understanding common knowledges base from the study of apparel design/merchandising, child/family development over the life span, foodservice management/nutrition, interior design/housing, and resource management. ABC/NC grading only.

**CFS 320 Children and Families (3) [GE]**

*Prerequisite:* Upper division standing. Growth, development, and enculturation of the child within the family setting through adolescence; intra-family relationships; parent-child relations. Environmental influences affecting children's cognitive, emotional, social, and physical development. Participation in action project involving children.

**CFS 321 Adolescents and Families (3) [GE]**

*Prerequisite:* Upper division standing. Growth and development of children from middle childhood through adolescence; patterns of maturation and individual differences. Parent-child interactions; transition from family-centered toward peer-centered environment. Problems confronting adolescents in contemporary society.

**CFS 322 Early Childhood Education Curriculum (Birth to Five) (3)**

*Prerequisite:* CFS 320 or equivalent. Activities and learning materials that facilitate cognitive, emotional, social, physical, language, and creative development of children from birth to five: art, music, language arts, science, and dramatic play. Observing and recording children's behavior.

**CFS 323 Infant/Toddler Development (3) [GE]**

*Prerequisite:* upper division standing. Prenatal and infant/toddler development: factors that influence development. Parental and adult influences on sensorimotor, cognitive, emotional, and social development of infants/toddlers. Physiological changes and psycho-social aspects of pregnancy and the birth process.

**CFS 324 Administration of Infant/Toddler Programs (3)**

*Prerequisite:* ENG 114 or equivalent and CFS 323. Administration and supervision of group programs to provide quality care for infants and toddlers. Caregiving to support the development of attachment, perception, motor skills, cognition, language, social skills, feelings, and a sense of self in a safe and healthy environment.

**CFS 325 Transitions in the Family Life Cycle (3)**

*Prerequisite:* upper division status. Transitions in relations throughout the family life cycle; dynamics of family interactions within family systems. Divorce, remarriage, step families and related issues. Implications of recent research for personal and family decisions. Role of marriage and family professionals

**CFS 351 Asian Food, Culture, and Hospitality (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with HTM 351. For course description, see HTM 351. May not be repeated under alternate prefix.

**CFS 352 Foods, Production, and Service (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Food preparation, standards, and techniques in food production and service. Factors affecting quality of foods. Practical experience in production and service in accordance with standards, sanitation and safety, and cost control. (Cross listed with DFM/HTM 352. May not be repeated under alternate prefix.) (Formerly CFS 250.)

**CFS 353 Foodservice Systems Management (3)**

*Prerequisite:* DFM 253 and CFS/DFM 352 with grade of C or better; upper division standing. Priority enrollment for majors. Organization and management of foodservice systems. Areas within foodservice systems: production and service management, sanitation and safety, cost control, and human resources. Daily business operation procedures. (Also offered as DFM 353. May not be repeated under alternate prefix.)

**CFS 353 GW Foodservice Systems Management - GWAR (3)**

*Prerequisites:* grade of C or better in ENG 214 or equivalent, DFM 253, and CFS/DFM 352; upper division standing. Priority enrollment for majors. Organization and management of foodservice systems. Areas within foodservice systems: production and service management, sanitation and safety, cost control, and human resources. Daily business operation procedures. (Cross listed with DFM 353. May not be repeated under alternate prefix.) ABC/NC grading only.

**CFS 355 Nutrition for Wellness (3) [GE]**

*Prerequisites:* upper division standing and consent of instructor. Reliable and unreliable health information sources, present research and current controversies on common health problems and dietary inter-relationships.

**CFS 356 Foods and World Culture (3) [GE]**

*Prerequisite:* Upper division standing. Art and science of foods and their consumption in relation to historical, national, geographical, racial, and religious customs. Distinctive cuisine of various cultures. Evaluation of dietary habits in relation to nutritional needs of individuals.

**CFS 420 Assessment and Observation with Children (3)**

*Prerequisite:* CFS 320 or equivalent. Interpretation, evaluation, and practice of measurement and assessment tools used with children, including observation techniques and standardized tests.

**CFS 423 Administration of Programs for Young Children (3)**

*Prerequisite:* CFS 320 or consent of instructor. Organization, administration, development, and evaluation of programs serving young children in group settings: philosophy, program design, staffing, licensing, housing, equipment, funding, and parent involvement.

**CFS 424 Supervised Experiences with Young Children (3)**

*Prerequisite:* CFS 320, CFS 322, CFS 423 (CFS 423 may be taken concurrently), or consent of instructor. Observation and participation in guiding learning experiences in preschool settings. Developing, using, and evaluating educational activities for young children.

**CFS 426 Family Crises: Drug Dependency and Eating Disorders (3) [GE]**

*Prerequisite:* upper division status. Crisis and crisis intervention theories; common disruptions in family experience; alcohol/drug dependency and eating disorders; codependency; new directions in solutions that re-establish family functioning.

**CFS 428 Children and Families with Violence, Abuse, and Neglect (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Child and family violence, abuse, and neglect throughout the life cycle with a cross cultural focus; family patterns of victimization; profiles of victims and perpetrators; family and child relationship perspectives; intergenerational patterns of victimization. Intervention issues and services. (Paired with CFS 728. Students who have completed CFS 728 may not take CFS 428 for credit.)

**CFS 430 Management Dynamics: Life Goals and Decisions (3)**

*Prerequisite:* upper division standing; priority enrollment for CFS majors. Needs, values, goals, standards, policies, and decision-making processes central to the dynamics of managing resources in the performance of family and professional roles.

**CFS 453 Nutrition in the Life Cycle (3)**

*Prerequisite:* grade of C or better in college-level course in nutrition; CFS/DFM 353. Priority given to Consumer and Family Studies and Dietetics and Food Management majors and graduating seniors. Modification of nutritional needs with changes in the life cycle. Significance of nutrition for growth and development from conception through adolescence. Influence of nutrition on the aging process.

**CFS 481 Consumer and Family Studies/Dietetics Field Experience (2-4)**

*Prerequisites:* upper division standing and consent of instructor. Field experiences may be taken concurrently with approval. Field experience in area of emphasis. Advance course application is required. Forms can be obtained from the department office. May be repeated for a total of 6 units.

**CFS 600 Professional Development (3)**

*Prerequisites:* graduating senior; completion of GWAR course, passing score on JEPET or ENG 411/414. Professional roles and career opportunities. Portfolio development. Trends and issues in the fields of apparel, interior design, and family and consumer sciences using an integration of subject matter. (Cross listed with ADM/ID 600. May not be repeated under alternate prefix.)

**CFS 657 New York Fashion Study Tour (3)**

*Prerequisites:* 6 units of course work in clothing and textiles or consent of instructor. The New York fashion center. Guided tours of Seventh Avenue designer salons, the garment district, museums, famous retailers, and other areas influencing today's fashion.

**CFS 685 Projects in Teaching of Consumer and Family Studies/Dietetics (3)**

*Prerequisites:* upper division standing in CFS/D and approval of supervising instructor; and grade of B or better in course in which student will be teaching assistant. Teaching experiences in CFS/D through assigned instructional projects in a classroom and under the guidance of a member of the faculty. Training in pedagogical principles including supervised classroom teaching activities. CR/NC grading only.

**CFS 699 Special Study (1-3)**

Intensive study of a particular problem under direction of a member of the department. Enrollment by formal petition requiring signed approval of instructor. Advance course reservation in the department. May be repeated for a total of 6 units.

**Graduate Courses****CFS 700 Seminar: Trends and Issues in Family and Consumer Sciences (3)**

Trends and issues in family and consumer sciences. New concepts; review of research; and application of findings to problems of families, individuals, and curricula.

**CFS 728 Children and Families with Violence, Abuse, and Neglect (3)**

*Prerequisite:* graduate standing. Paired with CFS 428. See CFS 428 for course description. Students who have completed CFS 428 may not take CFS 728 for credit.

**CFS 743 Sustainability in the Textile, Housing, and Food Industries (3)**

*Prerequisite:* graduate standing. Paired with ID 543. See ID 543 for course description. Students who have completed ID 543 may not take CFS 743 for credit.

**CFS 760 Seminar in Clothing and Textiles (3)**

*Prerequisites:* 6 upper division units related to topic emphasis. Topic to be specified in Class Schedule. May be repeated once when topic varies.

**CFS 761 Advanced Clothing Design Problems (3)**

*Prerequisite:* ADM 361, ADM 362. Paired with ADM 661. See ADM 661 for course description. Students who have completed ADM 661 may not take CFS 761 for credit.

**CFS 769 Visual Merchandising and Promotion (3)**

*Prerequisites:* ADM 369, ID 240, and a college level drawing class. Paired with ADM 569. See ADM 569 for course description. Students who complete ADM 569 may not take CFS 769 for credit.

**CFS 794 Seminar in Research (3)**

*Prerequisite:* consent of graduate adviser. Cross listed with NURS 794. For course description, see NURS 794. (May not be repeated under alternate prefix.)

**CFS 863 Seminar in Social Entrepreneurship (3)**

Cross listed with MGMT 836. For course description, see MGMT 863. (May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**CFS 881 Internship (3-7)**

Field experience offered in cooperation with a private/public profit or non-profit organization that enables students to acquire competencies and experience required for fulfilling professional responsibilities. Written critique of experience required.

**CFS 891 Directed Readings in Family and Consumer Sciences/Dietetics (3)**

*Prerequisite:* M.A. candidacy in Family and Consumer Sciences. Directed reading under supervision of a faculty member in the department.

**CFS 895 Field Study (3)**

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**CFS 897 Research in Family and Consumer Sciences/Dietetics (1-3)**

*Prerequisite:* departmental approval. Research topics germane to family and consumer sciences and/or dietetics. May not be used to satisfy the 30-unit minimum for GAP. May be repeated with departmental approval.

**CFS 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the Master of Arts and approval of the graduate major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**CFS 899 Special Study (2-4)**

An intensive study of a particular problem under the direction of a member of the department. Enrollment by formal petition requiring signed approval of instructor, adviser, and department chair. Available only to students who have done previous work in the department. Must be scheduled with instructor one semester in advance. May be repeated for a total of 6 units.

**COUNSELING***Undergraduate Courses***COUN 280 Empowering Poor Families to Graduate Out of Poverty (3)**

Cross listed with H ED 280. For course description, see H ED 280. (May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**COUN 325 Selected Problems In Counseling (1-3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 6 units when different problems are considered.

**COUN 367 Internship in Independent Living Services (1-3)**

*Prerequisite:* consent of instructor. Under supervision, students provide direct services to consumers in independent living centers to facilitate empowerment. Paired with COUN 867. Students who have completed COUN 367 may not take COUN 867 later for credit. CR/NC grading only.

**COUN 425 Advanced Peer Advising (2)**

*Prerequisite:* COUN 325 Peer Counselor Training. Advanced leadership, communication and peer advising skills. Students take a meaningful role in the undergraduate orientation and/or peer advising program. May be repeated for a total of 8 units.

**COUN 450 AIDS and People of Color in the U.S. (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. The political, psychological, social, and economical impact of AIDS/HIV infection on diverse cultural backgrounds. Prevention and educational strategies. (Cross listed with ETHS 460. May not be repeated under alternate prefix.)

**COUN 605 Peer Counseling Skills Seminar (1-3)**

*Must be taken concurrently with COUN 606.* Peer counseling training: counseling methods and techniques, practice, and supervised field placements. [CSL may be available; consult Bulletin index for page reference.]

**COUN 606 Introduction to Peer Counseling Skills (3)**

*Must be taken concurrently with COUN 605.* Clinical processes to help individual students learn listening, responding, interpretation, decision-making, program development, implementation, and evaluation skills. May be repeated for a maximum of 6 units. [CSL may be available; consult index for page reference.]

**COUN 607 Advanced Peer Counseling Seminar (3)**

*Prerequisites:* COUN 605/606. Peer counselor training: methods, techniques, practice, and supervised field placement. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**COUN 608 Advanced Peer Education Internship (3)**

*Prerequisite:* COUN 605 and COUN 606, or consent of instructor. Students develop, plan and provide workshops and other forms of outreach and prevention education on topics of sexual assault, substance abuse, sexuality, and HIV/AIDS. May be repeated for a total of six units for degree credit. [CSL may be available; consult index for page reference.]

**COUN 625 Selected Problems in Counseling (1-3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 6 units when different problems are considered.

**COUN 630 Legal Center Training I (3)**

*Prerequisites:* upper division standing and consent of instructor. Interviewing and legal information to function appropriately in the Legal Center 3-4 hours per week.

**COUN 631 Legal Center Training II (3)**

*Prerequisites:* COUN 630, consent of instructor, and upper division standing. Practice in interviewing skills and additional legal information for staffing the Legal Center 4 hours per week.

**COUN 632 Student Leadership Development (3)**

*Prerequisite:* must hold current student organization or government leadership position. Leadership and leadership styles: analysis and observations of others' leadership.

**COUN 690 Field of Counseling I (3) [GE]**

*Prerequisites:* PSY 200 or graduate status or consent of instructor. Professional identity for career, college, marriage and family, rehabilitation, school, gerontological counseling. Career decision-making, mid-life, career change, pre-retirement guidance, and mental illness. Computer technology and counseling. History, ethics, and self-awareness.

**COUN 691 Multicultural Human Relations (3) [GE]**

*Prerequisites:* upper division standing. Psychosocial perspectives on attitudes, knowledge, and insights essential to effective multicultural relationships and the examination of culture as it relates to ethnicity, gender, physical and learning abilities, race, sexual orientation, and class.

**COUN 699 Special Study (1-3)**

Intensive study of a particular problem under direction of a department member. Enrollment by petition approved by the instructor, adviser, and department chair. Open to enrolled students only. May be repeated for a total of 6 units.

**Graduate Courses****COUN 700 Theories of Counseling (3)**

*Prerequisite:* undergraduate course in personality theories and consent of instructor. Theories of counseling and personality. Counseling process and practice relating to major approaches; therapeutic practices with illustration of relevant techniques and cases.

**COUN 702 Developmental Foundations for Counselors (3)**

*Prerequisite:* undergraduate course in lifespan human development and consent of instructor. Theories of human development and learning; adaptive behavior to normal development and congenital and traumatic disability; dynamics of family, home, and societal influences and implications for counseling.

**COUN 703 Psychological Foundations for Counselors (3)**

*Prerequisite:* undergraduate course in psychopathology or abnormal behavior and consent of instructor. Theories of mental health and mental illness, classification of behavior disorders, diagnosis and prognosis, psychological impairment, psychological issues related to physical disability; implications for counseling and therapeutic interventions.

**COUN 704 Psychosocial Aspects of Disability (3)**

*Prerequisites:* COUN 703, 762, 766, and consent of instructor. Psychological reactions to physical, cognitive, sensory, developmental, mental, and other disabilities. Includes culture, diversity, self-concept, interpersonal relations, coping, family, attitudes, social-environmental impacts, minority status and models of disability.

**COUN 705 Practicum and Internship (2)**

*Prerequisite:* consent of instructor. Must be taken concurrently with COUN 706. Initial practicum and intern experience for counseling students. CR/NC grading only. [CSL may be available; consult index for page reference.]

**COUN 705 Practicum and Internship (3)**

*Prerequisite:* consent of instructor. Must be taken concurrently with COUN 706. Initial practicum and intern experience for counseling students. CR/NC grading only. [CSL may be available; consult index for page reference.]

**COUN 706 Counseling Process (3)**

*Prerequisites:* COUN 702 and 703 (may be taken concurrently); consent of instructor. Must be taken concurrently with COUN 705. Must meet prerequisites, concurrent enrollment requirement, have instructor consent, and attain B or better. Clinical interviewing skills; individual growth in clinical process. [CSL may be available; consult index for page reference.]

**COUN 714 Writing for Counselors (3)**

*Prerequisite:* Graduate standing in counseling or consent of instructor. Designed to develop graduate writing skills for counseling students, strengthen writing organization and report writing, learn to integrate bibliographic sources and use APA style. May not be used to meet GAP requirement. CR/NC only.

**COUN 715 Assessment in Counseling (3)**

*Prerequisite:* consent of instructor. Clinical process of testing; individual counselor's ability to clinically analyze and interpret assessment instruments, including diagnostic tests for various counseling specializations.

**COUN 716 Professional Seminar I--Structural Elements in School Counseling (2-4)**

*Prerequisite:* consent of instructor. Institutional structure and culture of schools, relevant laws and ethics, trends in guidance and counseling and design of comprehensive counseling programs.

**COUN 717 Professional Seminar II--Functional Elements in School Counseling (2-4)**

*Prerequisite:* COUN 716. Normative roles of school counselors in a changing world, provides skills to address issues and develop a school counseling philosophy.

**COUN 718 Professional Seminar III--Professional Issues in School Counseling (2-4)**

*Prerequisites:* COUN 716 and 717. Professional issues, aspects of professional identity, and development of understanding of a systems theoretical approach to working in schools.

**COUN 719 Behavior Management (3)**

*Prerequisite:* consent of instructor. Behavioral, cognitive-behavioral, and ecobehavioral theory and intervention applied to human behavior change. Primary focus on classroom behavior management. (Cross listed with PSY 857. May not be repeated under alternate prefix.)

**COUN 720 Career Counseling (1-3)**

*Prerequisite:* consent of instructor. Dynamics of vocational choice and occupational adjustments; social learning and developmental tasks, educational and vocational information; counseling process in occupational planning.

**COUN 721 Computer Applications in Counseling (3)**

*Prerequisite:* consent of instructor. Use of computers for advising, course registration/reservation, articulation between high schools, colleges and community colleges; test scoring and interpretation, career guidance, and computer assisted instruction.

**COUN 727 Advanced Career Counseling (3)**

*Prerequisites:* COUN 720 or COUN 778 and consent of instructor. Techniques in conducting personal career research and informational interviews; skills and knowledge necessary to establish a viable career placement center.

**COUN 735 Advanced Practicum and Internship (2-3)**

*Prerequisites:* COUN 705, COUN 706, and consent of instructor. Must be taken concurrently with COUN 736. Supervised internship for 12 hours minimum a week in appropriate clinical facilities. CR/NC grading only. [CSL may be available; consult index for page reference.]

**COUN 736 Advanced Counseling Process (3)**

*Prerequisites:* COUN 700 (may be taken concurrently), 705, 706, and consent of instructor. Must be taken concurrently with COUN 735. Must earn grade of B or better. Clinical counseling case analysis; individual counselor growth assessment, management, and disposition of clients. [CSL may be available; consult index for page reference.]

**COUN 737 Psychopharmacology in Counseling (2)**

*Prerequisite:* graduate standing, graduate degree, or consent of instructor. Introduction to the psychophysiology of mental disorders and to psychiatric medications; major classes of psychiatric medications and their side effects. (CR/NC grading only)

**COUN 738 Substance Abuse (2-3)**

*Prerequisite:* consent of instructor. Dynamics, behaviors, and treatment interventions related to substance abuse; legal and clinical aspects.

**COUN 748 Rehabilitation Assistive Technology (3)**

*Prerequisite:* COUN 762 (may be taken concurrently). Utilization and application of existing technologies to solve client rehabilitation problems in communication, mobility, daily living, and work.

**COUN 750 Planning for Deaf and Hard of Hearing Persons from Culturally Diverse and Underserved Groups (2)**

*Prerequisites:* COUN 751, COUN 752, and consent of instructor. Resources and rehabilitation processes specific to deaf and hard of hearing adolescents and working age adults. Understanding culturally diverse and underserved population issues. Identifying impact of students' own cultural experiences and identity.

**COUN 751 Psycho-social Implications of Deafness and Hearing Loss from an Early Age (1)**

*Prerequisite:* graduate status or consent of instructor. Psycho-social assessment; language and communications preferences and level; social and other developmental issues; role of cultural/linguistic history; readiness for work. May be repeated for a total of 2 units.

**COUN 752 Psycho-social Implications of Deafness and Hearing Loss After the Acquisition of Language (1)**

Communication and psycho-social differences among people with early and late onset deafness. Mental health implications, rehabilitation and social support options, vocational functioning and rehabilitation needs of persons deafened. May be repeated for a total of 2 units.

**COUN 753 Mental Health Assessment of Deaf, Deafened, and Hard of Hearing Persons (1)**

*Prerequisite:* COUN 703 or consent of instructor. Mental health assessment applied to deaf, deafened, and hard of hearing individuals; implications of culture, mental status examinations, family, educational, psycho-social history, and DSM IV diagnostic criteria for vocational planning. May be repeated for a maximum of 2 units.

**COUN 755 Hearing Loss for Rehabilitation Counselors (1)**

*Prerequisite:* graduate status or consent of instructor. Audiological services for deaf, hard of hearing, and deafened adults. Components of communication and sound; hearing mechanisms; types, degrees, and configurations of hearing loss; medical implications and rehabilitation services. May be repeated for a total of 2 units.

**COUN 757 Psychological Testing of Deaf, Deafened, and Hard of Hearing Persons (1)**

*Prerequisite:* COUN 715 or consent of instructor. Testing for deaf, deafened, and hard of hearing persons; categories of testing, appropriate referral questions, differences in testing approaches, norm grouping issues, diagnoses. May be repeated for a total of 2 units.

**COUN 759 Substance Abuse Issues when Working with Deaf, Deafened, and Hard of Hearing Persons (1)**

Chemical dependency assessment with deaf and hard of hearing individuals, treatment and intervention strategies; continuum of care, drug/alcohol and HIV/AIDS education and prevention, relapse prevention, self-help groups, ethical considerations. May be repeated for a total of 2 units.

**COUN 760 Deaf Culture and Mental Health (1)**

*Prerequisite:* consent of instructor. Highlights how deaf culture may affect delivery of mental health and counseling services. Participants learn to identify potential cultural influences on effective counseling process.

**COUN 762 Seminar on Field of Rehabilitation Counseling (3)**

*Prerequisite:* consent of instructor. Rehabilitation as a field of professional service; roles in the social structure; growth and interrelationship of public and private rehabilitation agencies; legislative process as it translates identified community needs into services.

**COUN 766 Medical/Social Aspects of Rehabilitation Counseling (3)**

*Prerequisite:* COUN 762 and matriculated student in rehabilitation counseling. Physical concomitants of disability; motivational, attitudinal, and self-concepts relating to traumatic and congenital disabilities; relationships of these concepts to rehabilitation counseling. Systems approach to understanding severe disability with emphasis on aspects of independent living.

**COUN 778 Occupational Information, Dynamics, and Placement in Rehabilitation Counseling (3)**

*Prerequisite:* COUN 766. Use of occupational information in the vocational development and adjustment process; problems and procedures in job placement of disabled persons.

**COUN 792 Seminar for Counselors in Student Personnel Services (3)**

*Prerequisite:* counseling major or consent of instructor. Organization, management, and delivery of college student services: organizational theory, management strategies and styles, program development, management, implementation, evaluation.

**COUN 793 Organization and Administration of Student Services in Higher Education (3)**

*Prerequisite:* consent of instructor. Seminar in organization and management of college student services: organizational theory, development, structures; management strategies and styles, decision making, management by objectives, administrative models; staff development; evaluation; accountability, budget planning, management; program development, evaluation; legal issues.

**COUN 794 Seminar in Research (3)**

*Prerequisite:* graduate status in counseling or consent of instructor. Identification and analysis of research problems related to health and human services; research methodology and techniques, including designs appropriate to clinical research problems including critique and interpretation of research reports.

**COUN 811 Group Counseling Process (3)**

*Prerequisites:* COUN 706 and consent of instructor. Instruction in group counseling dynamics: clinical analysis of group counseling sessions conducted by students. Focus on professional growth as a group counselor.

**COUN 820 Counseling the Older Adult (2-3)**

*Prerequisite:* consent of instructor. Individual and group counseling; couples and family counseling with the older adult; sexuality, lifestyle, and economics of older adults.

**COUN 825 Seminar on Selected Problems in Counseling (1-3)**

*Topic to be specified in Class Schedule.* May be repeated as topics vary.

**COUN 827 The Consultation Process (1-3)**

*Prerequisite:* consent of instructor. Dynamics of the consultation process; implications for various specialists in developing effective working relationships with teachers and parents.

**COUN 833 Social and Cultural Foundations in Counseling (3)**

*Prerequisite:* consent of instructor. Awareness and sensitivity to the needs and feelings of individuals of different sex, race, culture, life styles, and physical abilities; the nature of prejudice; implications for counselors.

**COUN 850 Second Specialization Internship (2-3)**

*Prerequisite:* consent of instructor. Internship for individuals who are not in a practicum and need university monitoring to accrue hours. CR/NC grading only. [CSL may be available; consult index for page reference.]

**COUN 857 Law and Ethics for Counselors (3)**

*Prerequisite:* consent of instructor. Legal and ethical responsibilities of counselors: confidentiality, privilege, reporting; legal obligations regarding professional practice and liability; professional codes of ethics; laws relating to minors, marriage, and the family; legal procedures of separation, divorce, and mediation.

**COUN 858 Couple and Family Counseling I (3)**

*Prerequisites:* COUN 700, 706, and consent of instructor. Major theoretical approaches: analytic, behavioral, systems, intergenerational, and existential. Reading, demonstrations, activities emphasize working with couples.

**COUN 859 Counseling Aspects of Sexuality (2)**

*Prerequisite:* consent of instructor. Major sexual problems encountered in counseling; causes; counseling approaches; techniques and treatments; clinical implications including feminine orientations. Satisfies MFCC requirements for child sexual abuse and human sexuality.

**COUN 860 Couple and Family Counseling II (3)**

*Prerequisites:* COUN 858 and consent of instructor. Applied psychotherapeutic techniques in working with families and relationships. Emphasis on direct experience working with families through simulations, demonstrations, case material.

**COUN 861 Seminar on Child Treatment (3)**

*Prerequisites:* COUN 736 and consent of instructor. Concepts, processes, techniques of child and adolescent treatment, crisis intervention, supportive counseling, and psychotherapeutic treatment.

**COUN 867 Internship in Independent Living Services (1-3)**

*Prerequisite:* consent of instructor. For course description, see COUN 367. Paired with COUN 367. Students who have completed COUN 867 may not take COUN 367 for credit. CR/NC grading only.

**COUN 886 Assistive Technology Internship (1-4)**

*Prerequisites:* COUN 748 (may be concurrent) and consent of instructor. Internship in rehabilitation settings where assistive technology is utilized to enhance the lives of persons with disabilities.

**COUN 890 Integrative Counseling (3)**

*Prerequisites:* COUN 735 and 736 and consent of instructor. Must be taken concurrently with COUN 892. Integrate and apply counseling constructs: assessment, diagnosis, treatment, planning, clinical interventions, law and ethics, and therapeutic relationships. Must earn grade of B or better.

**COUN 891 Case Studies and Internship Seminar (3)**

*Prerequisites:* COUN 890 and consent of instructor. Must be taken concurrently with COUN 892. Analysis of problems in assessment, management, disposition; application of methods and procedures to counseling specializations. Must earn grade of B or better. [CSL may be available; consult index for page reference.]

**COUN 892 Internship (2-4)**

*Prerequisites:* COUN 735, COUN 736, and consent of instructor. Must be taken concurrently with COUN 890 and COUN 891. Supervised counseling in schools or agencies; evaluation of counselor effectiveness; analysis of professional problems. May be repeated for a total of 8 units. CR/NC grading only. [CSL may be available; consult index for page reference.]

**COUN 899 Special Study (1-3)**

Special study under the direction of a department member. Open only to graduate students of demonstrated ability to do independent work. May be repeated for a total of 6 units.

**CREATIVE ARTS***Undergraduate Courses***CA 101 First Year Experience in Creative Arts (3)**

Exploration of the creative arts' role in culture. Focus on integration of creative thinking modalities with critical thinking skills to enhance artistic scope, study efficiency, and academic performance. Introduction to campus resources for learning and for personal growth. (Plus-minus ABC/NC grading only.)

**CA 301 Introduction to Computers as Arts Media (3)**

*Prerequisites:* upper division standing and creative arts major. Survey of current digital art media using graphics, animation, video, sound. Applications: Photoshop, Audacity, Final Cut Pro HD, Macromedia Director. Critical discussions on digital art in contemporary culture. Laboratory.

**CA 380 Arts and Social Change (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Arts expression in media, performance, and visual arts as voices of cultural diversity, enhancement, and change.

**CA 426 Thought and Image: Creative Arts (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Works in the creative arts and humanities studied in terms of the unique ways the meanings, values, and forms reflect their cultures of origin. Works from at least two global cultures will be included.

**CA 514 Preparation for Graduate Writing (3)**

*Prerequisites:* graduate status and must have taken the Graduate Essay Test (GET) or consent of instructor. Designed for students who need to improve their writing proficiency in preparation for graduate-level work. May not be used to meet master's degree GAP requirements. CR/NC grading only.

**CA 699 Special Study in Creative Arts (1-3)**

*Prerequisite:* Upper division standing; consent of instructor, adviser, department chair, and college dean. Individual study, under supervision of faculty member selected by student, of an aspect of creative arts not covered by regular courses. May be repeated up to 6 units. No more than 3 units may be taken during any one semester.

**CREATIVE WRITING***Undergraduate Courses***CW 101 Introduction to Creative Writing (3) [GE]**

The creative writing process. Exercises in writing poetry, fiction, and dramatic scripts. Selected readings of exemplary stories, poems, and plays. Open to all students.

**CW 301 Fundamentals of Creative Writing (3)**

*Prerequisite:* ENG 114 or equivalent. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Practice in writing poetry, fiction, and plays. Required for majors.

**CW 302 Fundamentals of Creative Reading (3)**

*Prerequisite:* ENG 114 or equivalent. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Students learn to read like writers through lecture-discussion and reading assignments. Submerges the student in literature and asserts the importance of reading.

**CW 465 Modern Greek Poetry in Comparative Perspective (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with MGS/CWL 465. For description see MGS 465. (May not be repeated under alternate prefix.)

**CW 497 Modern Greek Literature (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with MGS 497. For course description, see MGS 497. (May not be repeated under alternate prefix.)

**CW 506 The Business of Creative Writing (3)**

*Prerequisite:* CW 101 or CW 301 with a grade of C or better. Enrollment limited to CW majors; non-majors admitted with consent of instructor. Covers agents, corporate and small publishing houses, E-publishing, markets, publicity, etc. Students write letters to agents/editors, press releases for book tours, and several short papers. Paired with CW 806. Students who have completed CW 806 may not take CW 506 for credit.

**CW 507 Writing on the Body (3) [GE]**

*Prerequisites:* CW 101 or CW 301 and upper division standing. Concerns themes of human sexuality and gender in their psychological, social, political, moral, and aesthetic dimensions, combined with personal experience and personal expression. Sexual values are examined through artistic expression and analysis of expressive works.

**CW 510 The Creative Process (3)**

*Prerequisite:* CW 301 or CW 101 with grade of C or better. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Topic to be specified in Class Schedule. Class examines creative process, emphasizing techniques, style, and structure. May be repeated when topics vary.

**CW 511 Craft of Poetry - GVAR (3)**

*Prerequisite:* creative writing major; ENG 214 or equivalent with a grade of C- or better; CW 301 or equivalent. (ABC/NC only.) Focus on basic craft elements of poetry: diction, imagery, rhythm, voice and form. Close readings of published poetry. Creative and critical writing.

**CW 512 Craft of Fiction - GVAR (3)**

*Prerequisite:* creative writing major; ENG 214 or equivalent with a grade of C- or better; CW 301 or equivalent. (ABC/NC only.) Focus on basic craft elements of fiction: plot, dialogue, character, point of view and place. Discussion of student and professional writing.

**CW 513 Craft of Playwriting - GVAR (3)**

*Prerequisite:* creative writing major; ENG 214 or equivalent with a grade of C- or better; CW 301 or equivalent. (ABC/NC only.) Focus on basic craft elements of playwriting: scene, story, dialogue, character, and conflict. Discussion of student and professional writing.

**CW 514 Contemporary World Poetry (3)**

*Prerequisite:* CW 301 or CW 101 with grade of C or better. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Study of techniques and craft in a wide selection of contemporary poetry from various cultures and nations. Paired with CW 814. Students who have completed CW 514 may not take 814 for credit.

**CW 520 Writers on Writing (3)**

*Prerequisite:* ENG 214 or equivalent. Faculty and visiting writers representing a range of styles and subjects read from their works and discuss their creative process with students. Open to all students. Paired with CW 820. Students who have completed CW 520 may not take CW 820 for credit.

**CW 550 Poetry Center Workshop (3)**

*Prerequisite:* ENG 214 or CW 301 or consent of instructor. Contemporary poetic theory and practice as exemplified by the Poetry Center reading series. Attendance at readings and written critical study of the work of visiting poets. Open to all students. Paired with CW 850. Students who have completed CW 550 may not take CW 850 for credit.

**CW 600 Special Topics in Writing (3)**

*Prerequisite:* CW 301 or CW 101 with grade of C or better. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Topic to be specified in Class Schedule. Intensive study of a particular area in poetry, fiction, or playwriting. Writing projects in area of study. May be repeated when topics vary.

**CW 601 Work in Progress (3)**

*Prerequisite:* senior standing in creative writing. Enrollment limited to creative writing majors. Capstone course for seniors in which undergraduate portfolio is completed.

**CW 602 Playwriting (3)**

*Prerequisite:* CW major or consent of instructor; CW 301 & CW 511, or CW 512 or CW 513. Writing and analysis of plays. Discussion of problems such as craft, aspects of voice, form, characterization, and dialogue. May be repeated for a total of 6 units.

**CW 603 Short Story Writing (3)**

*Prerequisites:* CW 301 and CW 511 or 512 or 513. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Writing and analysis of short fiction in a workshop setting. Lectures on craft, reading for development, and story development. May be repeated for a total of 6 units.

**CW 604 Poetry Writing (3)**

*Prerequisites:* CW 301 and CW 511 or 512 or 513. Enrollment limited to creative writing majors. Writing and analysis of poetry in a workshop setting. Emphasis on poetic form, style, voice, the line, as well as rhyme, rhythm, meter, imagery and metaphor. May be repeated for a total of 6 units.

**CW 605 Writing and Performing Monologues (3)**

*Prerequisite:* CW 301 & CW 511 or 512 or 513 (for TH A majors TH A 130). Cross listed with TH A 605. For course description, see TH A 605. (May not be repeated under alternate prefix.)

**CW 609 Directed Writing for B.A. Students (3)**

*Prerequisite:* consent of instructor. Apply to instructor during semester prior to desired enrollment. Preference given to majors. Individual conferences to direct the student's project in one of the creative writing forms. May be repeated for a total of 9 units.

**CW 640 Transfer Literary Magazine (3)**

*Prerequisites:* CW 301 and either CW 403, 404, 405, or consent of instructor. Selection of original work for an undergraduate literary magazine. Book reviews, interviews, design, production, and distribution. May be used to fulfill 3 units of the CW 510 requirement.

**CW 675 Community Projects in Literature (3)**

*Prerequisites:* CW 301 or CW 101 with a grade of C or better; major in creative writing, or consent of instructor. Students use their writing skills by doing internships with community literary organizations. Paired with CW 875. May be repeated for a total of 6 units. [CSL may be available; consult Bulletin index for page reference.]

**CW 685 Projects in the Teaching of Creative Writing (3)**

*Prerequisites:* advanced undergraduate standing in creative writing and approval of chair. Grade of C or better in course in which student will be aide. Students are placed with a creative writing faculty member in a supervised practicum/internship experience where they explore the theoretical and practical aspects of teaching creative writing.

**CW 699 Independent Study (1-3)**

*Prerequisite:* consent of instructor. Under exceptional circumstances upper division students may enroll for special work under the supervision of a member of the Creative Writing faculty.

**Graduate Courses****CW 785 Graduate Projects in the Teaching of Creative Writing (3)**

*Prerequisites:* grade of B or better in the course or its equivalent in which the student will be an aide; classified graduate standing in CW; consent of instructor. Supervised practicum/internship experience with a creative writing faculty member; exploration of theoretical and practical aspects of teaching creative writing; practice in leading group discussions and tutoring. MFA students may apply a total of 9 units toward degree; MA students may apply no more than 3 units toward degree.

**CW 803 Advanced Short Story Writing (3)**

*Prerequisite:* classified graduate status in creative writing or consent of instructor. Writing short stories, emphasizing the development of the student's creative and critical abilities. May be repeated for a total of 9 units.

**CW 804 Advanced Poetry Writing (3)**

*Prerequisite:* classified graduate status in creative writing or consent of instructor. Writing poetry with emphasis on analysis of student work and growth of critical abilities. May be repeated for a total of 9 units.

**CW 806 The Business of Creative Writing (3)**

*Prerequisite:* classified graduate status in creative writing or consent of instructor. For course description, see CW 506. Graduate students write a longer research paper and organize panel discussions. Paired with CW 506. Students who have completed CW 506 may not take CW 806 for credit.

**CW 807 Developing the Novel (3)**

*Prerequisite:* classified graduate status in creative writing or consent of instructor. Writing workshop for students in the early phases of writing a novel.

**CW 808 Novel Writing (3)**

*Prerequisites:* classified graduate status in creative writing and CW 807, or consent of instructor. Writing and analysis of longer forms of fiction. Personal consultations. May be repeated for a total of 9 units.



**C W 809 Directed Writing for Graduate Students (3)**

*Prerequisites:* classified graduate status in creative writing and consent of instructor. Apply to instructor during the semester prior to desired enrollment. Through individual conferences the student is directed in a project in one of the forms of creative writing. May be repeated for a total of 9 units. Students may register for different genres concurrently.

**C W 810 Seminar in the Creative Process (3-6)**

*Prerequisite:* classified graduate status in creative writing or consent of instructor. Topic to be specified in Class Schedule. Class examines creative process, emphasizing techniques, style, and structure. May be repeated for credit when topics vary.

**C W 814 Contemporary World Poetry (3)**

*Prerequisite:* C W 301 or C W 101 with grade of C or better. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. For course description, see C W 514. Paired with C W 514. Students who have completed C W 814 may not take 514 for credit.

**C W 820 Writers on Writing (3)**

*Prerequisite:* graduate status or consent of instructor. For course description, see C W 520. Creative and/or critical projects required. Paired with C W 520. Students who have completed C W 820 may not take C W 520 for credit.

**C W 825 Playwright's Theatre Workshop (3)**

*Prerequisites:* classified graduate status in creative writing or consent of instructor. Projects designed to give playwrights opportunities to refine their craft through workshops, rehearsals, readings, and dramaturgical assignments. May be repeated for a total of 9 units.

**C W 840 Fourteen Hills Literary Magazine (3)**

*Prerequisite:* classified graduate status in creative writing M.A. or M.F.A., or consent of instructor. Editing and publishing Fourteen Hills, the graduate literary magazine of the Creative Writing Department. Selection of material, design, production, and distribution. May be repeated for a total of 6 units.

**C W 850 Poetry Center Workshop (3)**

*Prerequisite:* graduate status or consent of instructor. For course description, see C W 550. Paired with C W 550. Students who have completed C W 850 may not take C W 550 for credit.

**C W 853 M.F.A. Workshop in Fiction (3)**

*Prerequisite:* classified graduate status in the M.F.A. in Creative Writing or consent of instructor. Students are expected to concentrate on revision of fiction, on bringing work to a finished, publishable state. Emphasizes the short story. May be repeated for a total of 18 units.

**C W 854 M.F.A. Workshop in Poetry (3)**

*Prerequisite:* classified graduate status in the M.F.A. in Creative Writing or consent of instructor. Students are expected to concentrate on revision of poetry, on bringing work to a finished, publishable state. May be repeated for a total of 18 units.

**C W 855 M.F.A. Workshop in Playwriting (3)**

*Prerequisite:* classified graduate status in the M.F.A. in Creative Writing or consent of instructor. Students are expected to concentrate on revision of a play, on bringing work to a finished state, ready for production. May be repeated for a total of 18 units.

**C W 856 M.F.A. Workshop in Short Plays (3)**

*Prerequisite:* classified graduate status in the M.F.A. in Creative Writing or consent of instructor. Students write a series of five-minute plays, ten-minute plays, and a one-act play that may be presented in conjunction with TH A 661. May be repeated for a total of 9 units.

**C W 859 Practicum in Teaching (3)**

*Prerequisite:* classified graduate standing MA/MFA CW, or consent of instructor. Pedagogical grounding for pragmatic classroom teaching work and structure in which to work with undergraduates, under the supervision of experienced faculty and in collaboration with other graduate students.

**C W 860 Teaching Creative Writing (3)**

*Prerequisite:* classified graduate status in the M.F.A. in Creative Writing or consent of instructor. Theoretical and practical aspects of teaching creative writing.

**C W 866 Craft of Translation (3)**

*Prerequisite:* classified graduate status in creative writing or consent of instructor. Literary translation: the art and craft of translation. Students familiarize themselves with the best models and develop skills in their own translation.

**C W 875 Community Projects in Literature (3)**

*Prerequisite:* classified creative writing graduate status or consent of instructor. Paired with CW 675. For course description, see CW 675. May be repeated for a total of 6 units.

**C W 880 M.F.A. Craft and Process Tutorial in Fiction (3)**

*Prerequisite:* classified graduate status in the M.F.A. in Creative Writing or consent of instructor. Topic to be specified in Class Schedule. Class examines creative process, emphasizing techniques, style, and structure. May be repeated for a total of 9 units when topics vary.

**C W 881 M.F.A. Craft and Process Tutorial in Poetry (3)**

*Prerequisite:* classified graduate status in the M.F.A. in Creative Writing or consent of instructor. Topic to be specified in Class Schedule. Class examines creative process, emphasizing techniques, style, and structure. May be repeated for a total of 9 units when topics vary.

**C W 882 M.F.A. Craft and Process Tutorial in Playwriting (3)**

*Prerequisite:* classified graduate status in the M.F.A. in Creative Writing or consent of instructor. Topic to be specified in Class Schedule. Class examines creative process, emphasizing techniques, style, and structure. May be repeated for a total of 9 units when topics vary.

**C W 893 Written M.F.A. Creative Work (3-6)**

*Prerequisites:* advancement to candidacy for the Master of Arts in English: Creative Writing and approval of the major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**C W 899 Special Study (1-3)**

*Prerequisite:* consent of instructor. A special study is planned, developed, and completed under direction of a faculty member. Open only to graduate students of demonstrated ability to do independent work. Enrollment by petition (form available in department office).

**CREDIT BY EVALUATION FOR EXPERIENTIAL LEARNING***Undergraduate Course***CEEL 300 Learning From Prior Experiences (1-6)**

Supervision in the preparation of a portfolio documenting prior learning experiences. Development and analysis of learning skills needed in the assessment of prior learning. Consideration of potential application of these learning techniques to current and future learning settings. For additional information, contact Advising Center. CR/NC grading only.

**CRIMINAL JUSTICE***Undergraduate Courses***C J 300 Criminal Justice: A Cross-Disciplinary Perspective (4) [GE]**

*Prerequisites:* upper division standing; ENG 214 with grade of C- or better; completion of any segment I Critical Thinking course with grade of C- or better. Analysis and critique of the contemporary criminal justice system. Includes field observation and guest lecturers. Classroom, 3 units; fieldwork, 1 unit.

**C J 323 Ethics in Criminal Justice - GVAR (3)**

*Prerequisite:* Criminal Justice major, upper division standing, CJ 300 (may be concurrent), and ENG 214 or equivalent with a grade of C- or better. Explores ethical issues related to the institution of the criminal justice system, the professions of criminal justice, and politics intended to address crime, law, and justice.

**C J 330 Research Methods in Criminal Justice-GVAR (4)**

*Prerequisites:* criminal justice majors; upper division standing; ENG 214 or equivalent with grade of C- or better; CJ 300 (may be concurrently enrolled). "Heuristics" refers to data gathering. How, by what basic procedures, is data gathered in criminal justice? Data gathering strategies and techniques, the nature of data gathered by official, governmental agencies, and alternatives to the present arrangement. ABC/NC grading only.

**C J 335 Legal Writing and Research (4)**

*Prerequisites:* upper division standing, CJ 300 (may be concurrent), passing score on JEPET or ENG 414, or consent of instructor. The legal brief as the focus of strong inference writing in criminal justice. Classroom, 3 units; fieldwork, 1 unit.

**C J 340 Comparative Criminal Justice (4)**

*Prerequisite:* upper division standing or consent of instructor. Ways in which institutions of criminal justice in one society compare with those in other societies. Attention is given to U.S., British, European, Asian, and African systems. Classroom, 3 units; fieldwork, 1 unit. (Cross listed with I R 341. May not be repeated under alternate prefix.)

**C J 400 Police and Public Policy (3)**

*Prerequisite:* upper division standing, C J 300, or consent of instructor. Scope of police activities, police administration, discretion, accountability, affirmative action, public relations, new technologies, and changing criminal procedure. Issues that the police can and should accomplish, by what rules, and under whose control.

**C J 401 Criminal Profiling (3)**

*Prerequisite:* upper division standing, C J 300, or consent of instructor. Analysis of the application of personality studies in homicide, arson, rape, and terrorist cases.

**C J 435 Race, Crime, and Justice (3) [GE]**

*Prerequisites:* upper division standing or consent of instructor. Cross listed with LTNS 430 [formerly RAZA 430]. For course description, see LTNS 430. (May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**C J 451 The Architecture of Incarceration (3)**

*Prerequisite:* upper division standing, CJ 300, or consent of instructor. The connections between architectural design and management of U.S. jails and prisons.

**C J 452 Criminological Theory (4) [GE]**

*Prerequisite:* completion of GE Seg. I requirements including ENG 214 or equivalent and upper division standing. Cross listed with SOC 451. For course description, see SOC 451. (May not be repeated under alternate prefix.)

**C J 461 Terrorism and Covert Political Warfare (4)**

*Prerequisite:* upper division standing, ENG 214 or equivalent, or consent of instructor. Cross listed with I R 361. For course description, see I R 361. (May not be repeated under alternate prefix.)

**C J 470 Juvenile Justice (4)**

*Prerequisite:* upper division standing, completion of GE Segment I requirements including ENG 214 or equivalent, or consent of instructor. Cross listed with SOC 452. For course description, see SOC 452. (May not be repeated under alternate prefix.) Classwork, 3 units; fieldwork, 1 unit. [CSL may be available; consult index for page reference.]

**C J 475 Intervention Policies in Juvenile Justice (3)**

*Prerequisites:* upper division standing, CJ 300, or consent of instructor. Critical examination of juvenile justice treatment and intervention policies over the past 200 years. Special emphasis on contemporary systems of care and revolutionizing practices.

**C J 480 California Corrections System (3)**

*Prerequisite:* Upper division standing, CJ 300, or consent of instructor. Development of California's correctional system, among the ten largest in the world. Critical junctures, including the introduction of the convict labor system, good time, progressive penology, and the prison building boom.

**C J 485 Latina/o Youth, Crime, and Justice (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with LTNS 485 [formerly RAZA 485]. For course description, see LTNS 485. (May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**C J 501 Criminal Law (3)**

*Prerequisites:* upper division standing, CJ 300, passing score on JEPET or ENG 414, or consent of instructor. Substantive criminal law: legal adjudication within the criminal justice system, the criteria according to which guilt is established. Types of crime: homicide, rape, theft, business crimes. Disposition of convicted offenders.

**C J 502 Criminal Procedure (3)**

*Prerequisite:* upper division standing, CJ 300, passing score on JEPET or ENG 414, or consent of instructor. The salient norms of criminal adjudication as they have developed in case law reflecting 4th, 5th, and 6th Amendment issues incorporated via the 14th Amendment. Reasonableness, probable cause, privacy, penumbral rights, assistance of counsel, federalism.

**C J 505 International Criminal Law (4) [GE]**

*Prerequisite:* upper division standing, CJ 300, passing score on JEPET or ENG 414, or consent of instructor. Comparative legal systems and the U.S. system of criminal law. Classwork, 3 units; fieldwork, 1 unit. (Cross listed with IR 332. May not be repeated under alternate prefix.)

**C J 515 Extremism as Crime (3)**

*Prerequisite:* upper division standing, CJ 300, passing score on JEPET or ENG 414, or consent of instructor. Domestic extremism in the U.S. (militia, hate crimes, terrorism).

**C J 520 Construction of Crime and Justice (3)**

*Prerequisite:* upper division standing, CJ 300, passing score on JEPET or ENG 414, or consent of instructor. Critical analysis of the images and realities, mythological construction of crime and the criminal justice system in the U.S.

**C J 525 Global Restorative Justice and Corrections (3)**

*Prerequisite:* CJ 300 and CJ 323 Restorative justice practices as alternatives to incarceration, focusing on international practices.

**C J 530 Geographies of Social Control and Urban Diversity (3)**

*Prerequisite:* Upper division standing, CJ 300, or consent of instructor. Geographical distribution of crime, law and justice systems. Informal and formal mechanisms of social control in urban space.

**C J 550 Current Issues in Criminal Justice (3)**

*Prerequisite:* upper division standing, CJ 300, passing score on JEPET or ENG 414, or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 12 units when topics vary.

**C J 680 Field Course in Criminal Justice (4)**

*Prerequisite:* upper division standing, CJ 300, passing score on JEPET or ENG 414, or consent of instructor. Data gathering, organization, and presentation of research to students engaged in field studies in any criminal justice system setting. [CSL may be available; consult index for page reference.]

**C J 685 Projects In Teaching Criminal Justice (1-4)**

*Prerequisite:* C J 300. Offers undergraduates experience in tutoring other undergraduates in preparing for written examinations in Criminal Justice courses. Tutors assist in organizing legal briefs and analyses in C J 300 and in essay examination preparation in other C J courses. (May be repeated for a total of 4 units.)

**C J 699 Special Study (1-4)**

*Prerequisites:* upper division standing; consent of instructor, major adviser, and department chair; passing score on JEPET or ENG 414; C J 300. Supervised study of a particular criminal justice issue selected by student. [CSL may be available; consult index for page reference.]

**CRITICAL SOCIAL THOUGHT***Undergraduate Courses***CST 300 Introduction to Critical Social Thought (3)**

*Prerequisite:* upper division standing or consent of instructor. The tradition and development of critical social thought in interaction with social-economic, political conditions from Kant, Hegel, and Marx in the 19th century to 20th century Marxism, phenomenology, and feminism. (Cross listed with PLSI 386. May not be repeated under alternate prefix.)

**CST 320 Racism: Cross-Cultural Analysis (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ANTH 320. For course description, see ANTH 320. (May not be repeated under alternate prefix.)

**CST 585 Global and World Cultures (3) [GE]**

*Prerequisite:* ANTH 120 or consent of instructor. Cross listed with ANTH 585. For course description, see ANTH 585. (May not be repeated under alternate prefix.)

**CST 590 Anthropology of Women (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Cross listed with ANTH 590 and WGS 595. For course description, see ANTH 590. (May not be repeated under alternate prefix.)

**DANCE***Undergraduate Courses*

A total of 4 units may be earned in any course numbered 100-199, 206-209, 236, or 308.

**Dance Studies****DANC 160 African Haitian Dance I (1) [GE]**

Beginning skills in African-Haitian dance.

**DANC 163 Ballet I (1) [GE]**

Ballet I is a beginning classical ballet technique class. May be repeated for a total of four units.

**DANC 170 Integrated Dance Technique I (2)**

A beginning technique class addressing basic dance skills in modern and jazz dance. May be repeated for a total of 4 units.

**DANC 173 Modern Dance I (1) [GE]**

Beginning skills in modern dance.

**DANC 176 Modern Jazz Dance I (1) [GE]**

Beginning skills in modern jazz dance.

**DANC 207 Dance in Cultural Context (1) [GE]**

Topic to be specified in Class Schedule. May be repeated for a total of 4 units when topics vary. Activity, 1 unit.

**DANC 232 Dance Composition: Choreography I (3) [GE]**

*Prerequisite:* sophomore standing or above and two technique classes. Choreography and creative process in dance: improvisation, exploration, form, and content in the formation of solo works. Classwork, 1 unit; activity, 2 units.

**DANC 236 Folklore of Dance: African-Haitian (2) [GE]**

Development of African-Haitian dance in connection with ritual and celebration. Practice of African-Haitian dance forms. Classwork, 1 unit; laboratory, 1 unit.

**DANC 263 Ballet II (2)**

*Prerequisite:* Ballet I or consent of instructor. An intermediate technique course in classical ballet. May be repeated for a total of 8 units. Priority enrollment for dance majors. (Formerly DANC 164.)

**DANC 275 Modern Dance II (2)**

*Prerequisite:* Modern Dance I or consent of instructor; priority enrollment given to dance majors. A low intermediate class in modern dance technique. May be repeated for a total of 8 units.

**DANC 276 Modern Jazz Dance II (2)**

*Prerequisite:* Modern Jazz Dance I or consent of instructor. An intermediate technique course in modern jazz dance. May be repeated for a total of 8 units. Priority enrollment for dance majors. (Formerly DANC 177.)

**DANC 300 GW Dance Organizational Strategies and Field Topics - GVAR (3)**

*Prerequisite:* grade of C- or better in ENG 214 or equivalent. Survey of dance service organizations and professional field topics: grantwriting, copyright liabilities, dance documentation, resumes, publicity strategies, fiscal survivorship. [CSL may be available; consult index for page reference.]

**DANC 304 Issues in Dance Medicine I (3)**

*Prerequisite:* BIOL 100. The musculoskeletal system: elements of physiology and nutrition as they apply to dance training. Classwork, 2 units; activity, 1 unit.

**DANC 307 Dance in Cultural Context II (2)**

*Prerequisite:* DANC 207 in the same dance form or consent of instructor. Dance form to be specified in Class Schedule. May be repeated as topics vary. Classwork, 1 unit; activity, 1 unit.

**DANC 310 Dance Conditioning/Pilates (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Physical conditioning through dance and pilates techniques including strength, flexibility, weight control, nutrition, cardiovascular issues. Alignment, centering, and development of precision in movement. Classwork, 2 units; activity, 1 unit.

**DANC 311 Alignment/Pilates Mat (1)**

*Prerequisite:* a college dance class; enrollment priority to dance majors. An activity course in pilates mat work including core stabilization, mind body centering, and related methods. May be repeated for a total of 8 units.

**DANC 312 Alignment Study/Pilates Mat (1)**

*Prerequisites:* DANC 311, 304, 310 or consent of instructor. Priority enrollment given to dance majors. Movement lab for intermediate/advanced experience in theory and practice of Pilates mat and small equipment; core stabilization, alignment; Pilates principles in relation to dance practice. May be repeated for a total of 4 units.

**DANC 316 Dunham Dance Technique (2)**

*Prerequisites:* DANC 160 and any ballet, jazz, or modern dance class. Intermediate level dance technique developed by the Katherine Dunham School of Dance covering barre exercises and movement progressions based in African Haitian and modern dance. May be repeated for a total of 8 units.

**DANC 340 Creative Process in Dance for Children (3)**

*Prerequisite:* upper division standing or consent of instructor. Creative dance for children and adolescents; relationship between the physical and mental processes of learning. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**DANC 350 Dance Aesthetics: Cultural/Historical Perspectives (3) [GE]**

*Prerequisite:* upper division standing. Cultural and historical exploration of dance for the viewer, including dance theatre and folk forms and their place in arts and culture.

**DANC 363 Ballet III (2)**

*Prerequisite:* Ballet II or equivalent or consent of instructor. Priority enrollment to dance majors. Ballet III is an intermediate-advanced classical ballet technique class. May be repeated for a total of 8 units. (Formerly DANC 206).

**DANC 374 Modern Dance III (2)**

*Prerequisite:* Modern Dance II or consent of instructor. Priority enrollment to dance majors. Modern Dance II is an intermediate/advanced technique class. May be repeated for a total of 8 units. (Formerly DANC 208).

**DANC 376 Modern Jazz Dance III (2)**

*Prerequisite:* DANC 276 or consent of instructor. Priority enrollment given to dance majors. Modern Jazz Dance III is an intermediate/advanced jazz technique class. May be repeated for a total of 8 units. (Formerly DANC 209).

**DANC 399 University Dance Theatre (2)**

*Prerequisites:* audition; completion of level II or III dance technique classes; concurrent enrollment in two dance technique classes. Year-long repertory class in which students build and perform faculty and guest artist choreography. May be repeated for a total of 12 units. [CSL may be available; consult index for page reference.]

**DANC 400 Workshop in Contemporary Dance (1)**

*Prerequisite:* a lower division technique class or consent of instructor. Study of new forms: cultural/contemporary fusion, contact improvisation, voice and movement. May be repeated for a total of four units.

**DANC 402 Workshop in Jazz/Musical Theatre Dance (1)**

*Prerequisites:* any lower division technique class or consent of instructor. Priority enrollment to dance, theatre, and music majors. Study of forms relating to jazz and music theatre. May be repeated for a total of 4 units.

**DANC 404 Production Techniques in Folk and Ethnic Dance (1)**

*Prerequisite:* DANC 207 or consent of instructor. Production techniques in staging ethnic dance for performance. Program materials, props and sets, make-up, sound, staging, and public relations are applied in an ethnic dance production/concert.

**DANC 416 Advanced Contemporary Dance Repertory and Skills (1)**

*Prerequisite:* DANC 206, MUS 208, or MUS 209 or consent of instructor. Repertory works and performance techniques for selected advanced dancers; projection, concentration, style. May be repeated once.

**DANC 430 Historical Survey of Dance in the Western World (3) [GE]**

*Prerequisite:* any Dance course or consent of instructor. Development of dance as a performing art in the western world, and its relationship to social/cultural changes.

**DANC 434 Dance Composition: Choreography II (3)**

*Prerequisites:* DANC 232, DANC 433, or audition; and consent of instructor. Experience in literal and non-literal choreography including chance, narrative, and historical forms. Work on duets, trios, and larger group studies culminating in a workshop presentation. Classwork, 1 unit; activity, 2 units.

**DANC 461 Advanced Choreography and Production (3)**

*Prerequisite:* DANC 232, 434. Choreography for the stage in conjunction with production planning and management of New Moves production. Includes publicity, budgeting, rehearsal management, and criticism. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**DANC 463 Performance in Dance Production (1)**

*Prerequisite:* intermediate level of dance experience, audition, and concurrent enrollment in dance technique class. Performance experience in choreography for dance production to train dancers for the field. Students are admitted to course by audition during the first week of the semester. May be repeated for a total of 4 units.

**DANC 474 Modern Dance IV (2)**

*Prerequisites:* DANC 374 or consent of instructor. An advanced modern dance class. May be repeated for a total of 8 units. (Formerly DANC 308.)

**DANC 545 Traditional Kulintang Music and Dance of the Southern Philippines (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ETHS/MUS 545. For course description, see ETHS 545. May be repeated once. (May not be repeated under alternate prefix.)

**DANC 560 Supervised Experience in Dance Education (3)**

*Prerequisites:* completion of dance core and level II technique. Observation/discussion of curriculum for dance programs in public schools and private settings, pre-school to 12th grade. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**DANC 657 Ethnology of Dance (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Function of dance in pre-literate, pre-technological societies in the context of anthropological literature. (Cross listed with ANTH 657. May not be repeated under alternate prefix.)

**DANC 699 Special Study (1-3)**

*Prerequisite:* consent of supervising faculty member. An intensive study of a particular problem under the direction of a faculty member in the department. May be repeated for a total of 9 units. [CSL may be available; consult index for page reference.]

**DECISION SCIENCES***Undergraduate Courses***DS 110 Calculus with Business Applications (3) [GE]**

*Prerequisite:* Satisfactory completion of ELM requirement. Basic quantitative reasoning and employment of fundamental mathematical principles to solve business problems. Elements of calculus, mathematics of finance, and decision-making.

**DS 199 Decision Sciences Make-Up (1)**

*Prerequisite:* consent of instructor. Additional study to make-up for partial equivalents in Decision Sciences courses. May be repeated for a total of 2 units. (Formerly BA 199)

**DS 212 Business Statistics I (3)**

*Prerequisites:* grade of C- or better in DS 110, MATH 110 or 226. Statistical methods essential in solving business problems including probability distributions, estimation and tests of hypotheses, and regression analysis.

**DS 312 Data Analysis with Computer Applications (3)**

*Prerequisite:* DS 212. Interpretation and presentation of data with business applications, using statistical software packages. Multiple regression, sampling techniques, design and analysis of surveys, analysis of variance, experimental design, and contingency tables. (Formerly BA 312)

**DS 408 Computer Simulation (3)**

*Prerequisites:* DS 212 and ISYS 263. The ISYS 263 prerequisite may be satisfied either by successfully passing the ISYS 263 course or waiver exam in basic computer proficiency and information systems. Development of computer-based simulation modeling skills, focusing on managerial cases. Experience with professional simulation software. Model formulation, execution, and interpretation of results. Classwork, 2 units; laboratory, 1 unit. (Formerly BA 408)

**DS 411 Decision Modeling for Business (3)**

*Prerequisites:* DS 110, DS 212, and ISYS 263. Basic concepts of spreadsheet modeling and risk analysis with applications to practical business decision making. Topics include cost and demand modeling, risk analysis, revenue (yield) management, and implementation of decision models using spreadsheets. DS 412  
Operations Management (3)

*Prerequisites:* grade of C- or better in DS/MATH 110, DS 212, ISYS 263 and upper division standing. Management of manufacturing and service operations. Use of computer-based models. Use of computer-based models. Forecasting, capacity planning, linear programming, inventory management, quality management, and project management.

**DS 431 Value Creation in the Transnational Enterprise (3) [GE]**

*Prerequisites:* ENG 214 or equivalent. Study of business collaboration within today's global society, with an emphasis on how companies across the world interact to create value. Collaborations are explored from many perspectives, including economic, political, cultural, legal, ethical, historical and environmental. (Cross listed with IBUS 431. May not be repeated under alternate prefix.) May not be counted as an elective course in the International Business concentration.

**DS 467 Decision Science Internship (1-3)**

*Prerequisites:* two of the following: DS 312, DS 408, DS 601, DS 604, DS 624; completed application form, and consent of instructor. Provides the opportunity to participate in a semester of field experience. Major report required. May not be used as part of DS concentration. CR/NC grading only.

**DS 567 Business Analysis Internship (3)**

*Prerequisites:* consent of instructor, completed application form, 3.0 GPA, and two courses selected from DS 312, 408, 601, 604, and 624. For course description, see ISYS 567.

**DS 601 Applied Management Science (3)**

*Prerequisites:* DS 110, DS 212, ISYS 263. The ISYS 263 prerequisite may be satisfied either by successfully passing the ISYS 263 course or waiver exam in basic computer proficiency and information systems. Decision making in business emphasizing computer applications. Development of spreadsheet modeling skills and use of professional software.

**DS 604 Applied Business Forecasting (3)**

*Prerequisites:* DS 212, ISYS 263. The ISYS 263 prerequisite may be satisfied either by successfully passing the ISYS 263 course or waiver exam in basic computer proficiency and information systems. Business forecasting methodology and applications: quantitative and qualitative approaches to short-, medium-, and long-range forecasting. Practical aspects of forecasting within business environment. Interrelationships with business planning.

**DS 624 Quality Management (3)**

*Prerequisite:* DS 212, ISYS 263. (ISYS 263 may be satisfied by passing the waiver exam in basic computer proficiency and information systems.) Concepts, methods, and current practices ensuring product and service quality. Applications in manufacturing and service industries: quality as a system, customer-driven quality, continuous process improvement, implementation approaches, and ethical issues.

**DS 655 Sustainable Supply Chain Management (3)**

*Prerequisite:* DS 412. Design and management of supply chains, cost-effectiveness, environmental and social responsibility. Includes global facility and network design, aggregate planning, transportation, inventory management.

**DS 699 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive problem analysis under the direction of a decision sciences faculty member. Open only to upper division students who have demonstrated ability to do independent work.

**Graduate Courses****DS 710 Quantitative Analysis for Business (3)**

*Prerequisite:* classified graduate status in business. Designed for students who do not meet minimum equivalency standards. Mathematics of finance and differential calculus, with applications in business operations. May not be used for master's degree GAP requirements.

**DS 712 Statistics for Business Managers (3)**

*Prerequisite:* DS 710 (may be taken concurrently upon advisement) and classified graduate status in business. Spreadsheet-based statistical tools used to support decision making in areas such as operations, finance, and marketing; graphical and descriptive tools for data analysis, probability distributions, estimation, hypothesis testing, regression, and correlation.

**DS 767 Decision Sciences Internship (1-3)**

*Prerequisites:* one 800-level DS course, completed application form, and consent of instructor. Provides the opportunity to participate in a semester of field experience. Major report required. May not be used on GAP. CR/NC grading only.

**DS 816 Seminar in Business Forecasting (3)**

*Prerequisite:* BUS 786 or consent of instructor. Theory and practice of short, medium, and long range forecasting within business environments. Quantitative and qualitative forecasting methods. Mathematical methods covered include time series models, decomposition models, linear and multiple regression models, and may include ARIMA and data mining.

**DS 851 Computer Simulation and Decision-Making (3)**

*Prerequisite:* BUS 786 or consent of instructor. Design and use of computer simulation models in business decision-making. Application to selected problems in various areas of business. (Formerly BA 851)

**DS 852 Managerial Decision Making (3)**

*Prerequisite:* BUS 786. Model building for business decision making through data driven analysis. Creation of spreadsheet models to identify choices, formalize trade-offs, specify constraints, perform sensitivity analyses, and analyze the impact of uncertainty. Effective spreadsheet design and use.

**DS 853 Seminar in Data Analysis (3)**

*Prerequisite:* BUS 786 or consent of instructor. Sampling techniques and exploratory methods of data analysis; methods of multivariate data analysis applied to business problems. Project using real data. Plus-minus letter grade only.

**DS 854 Total Quality Systems (3)**

*Prerequisite:* BUS 786 or consent of instructor. Concepts, methods, and current practices used to ensure product and service quality: quality as a system, customer-driven quality, continuous process improvement, quality and productivity, implementation approaches, applications, and ethical issues.

**DS 855 Supply Chain Management (3)**

*Prerequisite:* BUS 786 or consent of instructor. Supply chain design, planning, and operation. Concepts of competitive strategy and sustainability; aggregate planning and management of the marketing/operations interface; inventory management and procurement strategy; design of supply chain networks; the role of information technology. Plus-minus letter grade only.

**DS 856 Seminar in Project Management (3)**

*Prerequisite:* BUS 786 or consent of instructor. Enrollment priority for graduate students in business, and computing and business. The full range of issues faced by project managers. The project life cycle; technical, human, and organizational issues; planning, scheduling, and controlling the timing, resources, and costs of a project; software usage; case studies.

**DS 899 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive study of a particular problem under the direction of a business analysis faculty member. Open only to graduate students of demonstrated ability to do independent work.

**DESIGN AND INDUSTRY****Undergraduate Courses****DAI 210 Industrial Science (3)**

Nature, properties, and processing of common industrial materials used in the design and production of today's manufactured products: metallics, plastics, wood, paper, fibers and textiles, ceramics, coatings, and composite materials.

**DAI 227 Rethinking Digital Visual Media: History, Technology, and Content (3)**

Digital visual media (computer animation, interactive multimedia, Internet, virtual worlds) viewed through the lenses of history, cultural impact, technology, and production techniques.

**DAI 300 Design Process (3)**

*Prerequisite:* DAI 323, DAI 356, and DAI 370 with a grade of C or better; upper division standing or consent of instructor. Priority enrollment given to DAI majors. Creativity and the design process. Individual and group creative problem solving related to graphic communications and product design/development for industry. Laboratory. (Plus-minus letter grade only.)

**DAI 310 Product Design 1 (3)**

*Prerequisites:* DAI 323, DAI 356, DAI 370, DAI 320 and DAI 321 with grade of C or better; upper division standing or consent of instructor. Priority given to DAI majors. Industrial manufacturing processes related to the development of three dimensional objects for product and interior designers and manufacturing personnel. Laboratory. Extra fee required. (Plus-minus letter grade only.)

**DAI 320 Drafting and Sketching for Design (3)**

*Prerequisite:* DAI 323, DAI 356, and DAI 370 with a grade of C or better; upper division standing or consent of instructor. Priority enrollment given to DAI majors. Mechanical and freehand drawing, the reproduction of drawings, and interpretation of graphic projections. Perspective drawing and the common elements of technical illustration. Signs and symbols of design and drafting. Laboratory. Extra fee required.

**DAI 321 Technical Drawing 1: Introduction to CAD (3)**

*Prerequisites:* DAI 323, DAI 356, and DAI 370 with a grade of C or better; upper division standing or consent of instructor. Priority enrollment given to DAI majors. Fundamentals of two-dimensional geometric image generation techniques to familiarize the student with computer-aided drafting (CAD). Microcomputer CAD hardware and software. Laboratory. Extra fee required. (Plus-minus letter grade only.)

**DAI 322 Computer Graphic Imaging (3)**

*Prerequisite:* DAI 323, DAI 356, and DAI 370 with a grade of C or better; upper division standing or consent of instructor. Comprehensive studies in computer imaging process and production: digital image generation, image conversion processing, image assembly, and image production and reproduction. Selected computer graphic applications and software packages.

**DAI 323 Visual Design Literacy (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C or better; upper division standing or consent of instructor. Fundamental visual design principles, vocabulary, and applications in design. Topics relevant to 2D and 3D design techniques for both tangible and virtual results.

**DAI 324 GW Research and Writing for Design - GEAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C or better. DAI 323, DAI 356, and DAI 370 with a grade of C or better. Critical examination of works across the industry sub-disciplines of product design, visual communication and new media. Authoring design concepts and shaping visual presentations. (ABC/NC grading only.)

**DAI 325 Graphic Design 1: Introduction (3)**

*Prerequisite:* DAI 322, DAI 323, DAI 356, and DAI 370 with a grade of C or better or consent of instructor. Priority given to DAI majors. Design principles and problem solving for visual communication. Basic digital production tools and techniques for creating print and screen media. Laboratory. (Plus-minus letter grade only.)

**DAI 327 Digital Media 1 (3)**

*Prerequisite:* DAI 322, DAI 323, DAI 356, and DAI 370 with a grade of C or better or consent of instructor. Introduction to digital media design focusing on Web design. Conceptual approaches to structuring information and interaction, basic graphic design considerations germane to networked media, and basic production skills. Laboratory. Extra fee required. (Plus-minus letter grade only.)

**DAI 332 Electricity and Electronics (3)**

*Prerequisite:* DAI 323, DAI 356, and DAI 370 with a grade of C or better; upper division standing or consent of instructor. Fundamentals of DC/AC circuits theory and basics of semiconductor devices. Principles of power generation, distribution and applications. Application of theory to practical applications in home and industry. Classwork, 2 units; laboratory, 1 unit. Extra fee required.

**DAI 340 Design and Materials (3)**

*Prerequisites:* DAI 323, 356, and 370 with grades of C or better; upper division standing or consent of instructor. Properties of industrial materials related to design and manufacture of contemporary products; design process of material properties and traditional technologies relative to the form and function of design objects. Classwork, 2 units; laboratory, 1 unit. (Plus-minus letter grade only.)

**DAI 342 Metals Manufacturing (3)**

*Prerequisites:* DAI 321, DAI 323, DAI 356, and DAI 370 with a grade of C or better; upper division standing or consent of instructor. Contemporary metals design and manufacturing processes. Evolution of metal forming practices from traditional to computer-based automated processes. Laboratory. Extra fee required. (Plus-minus letter grade only.)

**DAI 344 Plastics for Design (3)**

*Prerequisites:* DAI 323, DAI 356, and DAI 370 with a grade of C or better; upper division standing or consent of instructor. History and development of the plastics industry; basic materials, processes, technology, and application for design. Laboratory. Extra fee required.

**DAI 356 A History of Design and Technology (3) [GE]**

*Prerequisite:* ENG 214 or equivalent with a grade of C or better; upper division standing or consent of instructor. History of modern design and attendant technology issues. Antecedents of modern design in product design, visual communications, and allied sectors in design.

**DAI 360 Model Development Laboratory (3)**

*Prerequisite:* DAI 300 or equivalent. DAI 323, DAI 356, and DAI 370 with a grade of C or better or consent of instructor. Rudiments of model building for the industrial designer. Production of various levels of models including presentation-grade models. Laboratory. Extra fee required. (Plus-minus letter grade only.)

**DAI 370 Colloquium (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C or better; upper division standing or consent of instructor. History, issues, and trends regarding design, technology, and industry. Planning, designing, and developing a program of study in design and industry. Employment outlook and career information.

**DAI 410 Product Design 2 (3)**

*Prerequisites:* DAI 300, 310, 321, 420, or consent of instructor. Introduction to the product design and development process: people, process and product. User/market research, product development documentation, concept visual, models and applications.

**DAI 420 Rapid Visualization (3)**

*Prerequisite:* DAI 370 with a grade of C or better and upper division standing. Illustration of product and graphic design ideas. Three-dimensional sketching and rendering techniques. Classwork, 2 units; laboratory, 1 unit.

**DAI 421 Technical Drawing 2: 3-D Solid Modeling (3)**

*Prerequisites:* DAI 321 or equivalent, and consent of instructor. Industry standard computer-aided drafting. Use of digital computer to develop working drawings in architectural and industrial design. Practice with industrial input and output device. Laboratory. Extra fee required.

**DAI 425 Graphic Design 2: Typography (3)**

*Prerequisites:* DAI 322 and 325 with grades of C or better or consent of instructor. Typographic design and its use in the problem solving process of layout design. Classic design exercises and experimentation in contemporary applications of type and letterforms as design elements. Laboratory.

**DAI 427 Digital Media 2 (3)**

*Prerequisites:* DAI 327 with grade of C or better or consent of instructor. Rich media design strategies and authoring techniques featuring graphical interaction, motion graphics, sound and video content for Web and mobile platforms. Laboratory. (Plus-minus letter grade only.)

**DAI 430 Industrial Controls (3)**

*Prerequisite:* DAI 332 or consent of instructor. DC/AC concepts associated with motors, generators, transformers, control devices, and electrical distribution systems as they pertain to industry applications.

**DAI 460 Rapid Prototyping and Manufacturing Systems (3)**

*Prerequisite:* DAI 300, 310, 321, or equivalent or consent of instructor. Design applications for Rapid Prototyping and Computer Integrated Manufacturing (CIM) systems; Manufacturing Resource Planning (MRP), integration methodologies and flexible manufacturing systems. Classwork, 2 units; lab 1 unit.

**DAI 470 Portfolio Development (1)**

*Prerequisite:* upper division standing or consent of instructor. Development, types, containers of visual materials for showing the products of a student in a handy format, ready for presentation upon completion of schooling. May be repeated for a total of 2 units.

**DAI 475 Topics in Design and Industry (1-3)**

*Topic and units to be specified in Class Schedule.* May be repeated when topics vary.

**DAI 505 Research and Development Laboratory (3)**

*Prerequisites:* DAI major, senior standing, pass JEPET or ENG 414, and all DAI core requirements. Culminating DAI problem-solving experience. Initiating an industrial research and development project; conducting all phases of the design development, from initial research, testing and prototyping, along with feasibility analysis and presentation. [CSL may be available; consult index for page reference.]

**DAI 523 Information Design 1 (3)**

*Prerequisites:* upper division standing, DAI 323, 356, 370, and DAI 300, 322, 325, or consent of instructor. Introduction to the field of information design; information design problems in both stand-alone and system applications; digital (interaction) media, print, and environmental communication. Laboratory.

**DAI 524 Information Design 2: Exhibits (3)**

*Prerequisite:* DAI 370 with a grade of C or better. Upper division standing or consent of instructor. Development of multimedia materials for presentations and exhibits. Methods of communicating diverse subject matter through various media, three dimensional devices, and representative models. Laboratory.

**DAI 525 Graphic Design 3: Advanced (3)**

*Prerequisites:* DAI 425 with grade of C or better or consent of instructor. Application of design principles in the solution of complex design projects. Laboratory.

**DAI 527 Digital Media 3 (3)**

*Prerequisites:* DAI 327 and DAI 427 with grades of C or better or consent of instructor. Focused experimentation and production in topics such as motion graphics, digital compositing, and interaction design. Laboratory. [CSL may be available; consult index for page reference.]

**DAI 532 Applied Digital Electronics (3)**

*Prerequisite:* DAI 332 or consent of instructor. Study of basic Transistor-Transistor-Logic (TTL) gates, combinational logic systems, counters, registers, encoders, decoders, Analog/Digital (A/D), D/A, and the tools/techniques used for analysis and application of digital circuits. Laboratory. Extra fee required.

**DAI 575 Workshop (1-3)**

*Prerequisite:* senior standing. Topic to be specified in Class Schedule. May be repeated when topics vary. Laboratory. Extra fee may be required. [CSL may be available; consult index for page reference.]

**DAI 576 Practical Experience: Internship (3)**

*Prerequisites:* completion of DAI 323, 356, and 370; upper division standing with major in DAI. In-service experience in a special field. Directed experience in teaching and/or industry. May be repeated for a total of 9 units. [CSL may be available; consult index for page reference.]

**DAI 627 Advanced Projects in Visual Communication Design (3)**

*Prerequisites:* consent of instructor. Development of student-driven project in advanced areas of digital and/or print media. Topics may include programming in design, physical computing, mobile media, corporate identity, information design.

**Graduate Courses****DAI 700 Seminar in Design Research (3)**

*Prerequisite:* Graduate Essay Test must be taken within 6 months of starting graduate program. Seminar in research methodology and introduction to the graduate program. Must be completed in first semester of enrollment.

**DAI 750 Seminar in Industrial Design Education (3)**

*Prerequisite:* DAI 700 or consent of instructor. Principles and practices for teaching industrial design curriculum including planning of curriculum, design of content, and creation of learning tools with consideration for experiential learning methods.

**DAI 755 Seminar in Design Management (3)**

*Prerequisites:* DAI 700 or consent of instructor. Students create a production using their project management skills throughout the experience.

**DAI 800 Seminar in Design Topics (3)**

*Prerequisite:* DAI 700 or equivalent. Design theory and practice. Special techniques in individual and group approaches to problem solving.

**DAI 805 Seminar in Design Methodology (3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**DAI 852 Directed Experience in Design and Industry (3)**

*Prerequisites:* consent of graduate major adviser, supervising faculty member, and department chair. Specified activities related to studies in industrial and technology education, design, or industrial technology. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**DAI 894 Creative Work Project (3)**

*Prerequisite:* advancement to candidacy for the Master of Arts and approval by departmental graduate committee. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**DAI 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the Master of Arts and approval of the major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**DAI 899 Independent Study (3)**

*Prerequisites:* enrollment by petition approved by the supervising instructor, the major adviser, and the department chair. Special study of a particular problem in industry or industrial education conducted under the direction of a faculty member. May be repeated. [CSL may be available; consult index for page reference.]

**DIETETICS AND FOOD MANAGEMENT***Undergraduate Courses***DFM 253 Nutrition in Health and Disease (3)**

*Prerequisites:* one semester of chemistry, physiology, or consent of instructor. Nutrient needs for maintaining positive nutritional status. Diets to fit specific health needs. Primary nutritional care. Use of self-paced learning materials and computer assisted instruction. For students in health professions.

**DFM 259 The Profession of Dietetics (1)**

*Prerequisite:* DFM 253 with a grade of C or better. Ethics and public policy development in dietetics. Registration for dietetics professional. Careers in dietetics. Preparation for application for the dietetics internship program.

**DFM 352 Foods, Production, and Service (3)**  
[GE]

*Prerequisite:* ENG 214 or equivalent. Cross listed with CFS/HTM 352. For course description, see CFS 352. (May not be repeated under alternate prefix.) (Formerly DFM 250.)

**DFM 353 Foodservice Systems Management (3)**

*Prerequisite:* DFM 253 and CFS/DFM 352 with grade of C or better; upper division standing. Priority enrollment for majors. For course description, see CFS 353. (May not be repeated under alternate prefix.)

**DFM 353 Foodservice Systems Management - GVAR (3)**

*Prerequisite:* grade of C or better in ENG 214 or equivalent, DFM 253, and CFS/DFM 352; upper division standing. Priority enrollment for majors. Cross listed with CFS 353. For course description, see CFS 353. (May not be repeated under alternate prefix.)

**DFM 357 Experimental Food Study (4)**

*Prerequisites:* grade of C or better in CHEM 130, DFM 352, and MATH 124; graduating senior. Food components and their interactions. Chemical and physical principles applied to foods. Recipe testing and formulation. Developments of experimental attitudes and techniques applicable to food science. Classwork, 3 units; laboratory, 1 unit.

**DFM 450 Advanced Nutrition (3)**

*Prerequisites:* grade of C or better in BIOL 610/611, CHEM 349, DFM 253, and MATH 124; graduating senior. Research in human nutrient requirements and metabolic interrelationships of proteins, carbohydrates, lipids, vitamins, minerals, and non-nutritive substances found in foods.

**DFM 451 Nutritional Assessment in the Community (3)**

*Prerequisite:* DFM 450 (may be taken concurrently); graduating senior. Nutritional assessment applied to community and clinical settings. Assessment protocols and practice. Nutrition counseling strategies, program planning and evaluation, legislation and public policy. Classwork, 2 units; laboratory, 1 unit.

**DFM 458 Management of Quantity Food Purchasing and Production (3)**

*Prerequisites:* DFM 352 with grade of C or better. Implementation of purchasing, specifications and procedures related to quantity food production, management, menu planning, standardized recipes, merchandising, cost and quality control. Classwork, 2 units; laboratory, 1 unit. (Cross listed with HTM 448. May not be repeated under alternate prefix.)

**DFM 484 Medical Nutrition Therapy I (3)**

*Prerequisites:* grade of C or better in DFM 253, CHEM 349, BIOL 610/611; graduating senior. The health care team and roles in nutritional care of clients in various settings. Assessment strategies and record keeping for clinical dietetics. Quality assurance. Nutrition education for outpatient clients.

**DFM 485 Medical Nutrition Therapy II (3)**

*Prerequisite:* grade of C or better in BIOL 610/611, CHEM 349, DFM 253, DFM 484, DFM 450 or concurrent; graduating senior. Analyzing and integrating research in nutritional diet therapy. Application to health care in clinical/community environments. Designing dietary components of patient care plans. Diet counseling techniques.

**DFM 555 Selected Topics in Dietetics (1-3)**

*Prerequisite:* course work in dietetics or related area. Topic to be specified in Class Schedule. In depth study focused on community, foodservice systems management, or patient care components of dietetics. May be repeated when topics vary.

**DFM 655 Nutrition Education and Communication (3)**

*Prerequisites:* foundation requirements; JEPET or ENG 411/414, or DFM 353GW; graduating senior. Objectives, methods, resources, and evaluation techniques for educational programs in commercial/community settings in dietetics. Knowledge, attitudes and skills as a dietetic educator. Classwork, 2 units; laboratory, 1 unit.

**Graduate Courses****DFM 751 Seminar in Nutritional Assessment Across the Lifespan (3)**

*Prerequisite:* baccalaureate degree and admission to the dietetics certificate program. Nutritional assessment of patients and clients in the community. Assessment of children, adults and the older adult.

**DFM 755 Seminar in Human Nutrition and Metabolism (3)**

*Prerequisite:* baccalaureate degree and admission to certificate program. Nutrition and the metabolism of nutrients in varying stages of wellness. Recent research related to energy nutrients, vitamins, minerals, and non-nutritive substances.

**DFM 758 Seminar in Foodservice and Nutrition Program Management (3)**

*Prerequisite:* admission to the dietetics certificate program. Organization and administration of quantity foodservice in acute, intermediate, and residential care facilities serving older adults. Quality control of food and the foodservice environment. Merchandising and marketing of food in non-profit and for-profit settings.

**DFM 785 Seminar in Medical Nutrition Therapy (3)**

*Prerequisites:* baccalaureate degree and admission to the dietetics certificate program. Medical nutrition therapy for patients and clients in acute care settings. Practical aspects of nutritional assessment and care planning.

**DFM 881 Internship in Dietetics (5-6)**

*Prerequisites:* baccalaureate degree and admission to the certificate program. Field experience in dietetics in private/public for-profit or non-profit organizations which enable acquisition of knowledge and performance competencies required by The American Dietetic Association. May be repeated for a total of 15 units. CR/NC grading only.

**ECONOMICS***Undergraduate Courses***ECON 100 Introduction to Macroeconomic Analysis (3) [GE]**

Basic economic methodology, analysis, and policy; economic institutions, organizations, and industrial structure; the monetary system; measurement, determination, and stability of national income; monetary, fiscal, and balance of payments problems and policies.

**ECON 101 Introduction to Microeconomic Analysis (3) [GE]**

Basic analysis of prices and markets; consumer behavior; behavior of the firm; factor markets.

**ECON 301 Intermediate Microeconomic Theory (3)**

*Prerequisites:* ECON 100, 101, and MATH 226 or equivalent. Behavior of firms and households in the market economy; production of the firm; determination of costs and prices; income distribution; examination of alternative market structures.

**ECON 302 Intermediate Macroeconomic Theory (3)**

*Prerequisites:* ECON 100, 101, and MATH 226 or equivalent. Determinants of important aggregate economic variables: levels of real and nominal output; rates of unemployment, inflation, and economic growth. Causes of changes in these variables and consequences of alternative macroeconomic policies. (Formerly ECON 300)

**ECON 305 Economic Analysis for Non-Majors (3) [GE]**

*Prerequisite:* Upper division standing or consent of instructor. Macro- and microeconomic theories and their applications to pricing for the firm and problems related to unemployment, inflation, and economic growth. Not open to students who have completed ECON 100 and 101.

**ECON 306 Economics and the Environment (3)**

*Prerequisite:* Upper division standing or consent of instructor. Cross listed with ENVS 306. For course description, see ENVS 306. (May not be repeated under an alternate prefix.) Economics majors may not use this course as an upper division elective.

**ECON 311 Statistical Methods and Interpretation (3)**

*Prerequisite:* MATH 226 or equivalent. Statistical methods essential in solving economic and business problems; descriptive statistics, probability theory, estimation, inferences, hypothesis testing, and statistical software applications. Classwork, 2 units; laboratory, 1 unit.

**ECON 312 Introduction to Econometrics (3)**

*Prerequisite:* ECON 311 or equivalent. Applied regression and correlation analysis of variance, time series analysis, and forecasting, index numbers, experimental design and sampling methods, and computer applications using major economic data sources; interpretation of results. Classwork, 2 units; laboratory, 1 unit.

**ECON 340 Economics of Gender (3)**

*Prerequisite:* One semester of economics or consent of instructor. Economic models to explain household decision-making regarding labor force participation, marriage, fertility, work sharing and resource allocation; discussion of current empirical evidence and policies to alleviate gender bias. Focus on women and children in developing countries.

**ECON 400 Economic and Social History of the United States (3) [USH]**

*Prerequisite:* ECON 100 or 305. Economic and social development of the United States. (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**ECON 425 Economic Geography (4)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with GEOG 425. For course description, see GEOG 425. (May not be repeated under alternate prefix.) Classwork, 3 units; fieldwork, 1 unit.

**ECON 450 Health Economics (3) [GE]**

*Prerequisites:* ECON 100 and ECON 101. Economic analysis of the US health care system. Supply, demand, and price of health care; cost, access and quality; regulation; health care reform and comparative health systems.

**ECON 474 History of Labor in the United States (3)**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST/LABR 474. For course description, see HIST 474. (May not be repeated under alternate prefix.)

**ECON 500 Money and Banking (3)**

*Prerequisite:* ECON 302 or equivalent. The roles of the Federal Reserve System, private commercial banks, and the public in the determination of the money supply. Analysis of the level and structure of interest rates. Methods, objectives, and actual consequences of monetary policy; international monetary problems.

**ECON 501 Money and Capital Markets (3)**

*Prerequisites:* ECON 302 and ECON 500 or equivalent. Savings and investments; financial intermediaries; the flow of funds; structure of interest rates; debts, real assets, and the level of economic activity.

**ECON 505 Public Economics (3)**

*Prerequisites:* ECON 100 and ECON 101 or equivalents, and ECON 301. Economic analysis of the public sector and its impact on the allocation of resources and distribution of income. Emphasis on the economics of government spending, taxation, and debt management. Paired with ECON 805. Students who have completed ECON 805 may not take ECON 505 for credit.

**ECON 510 Labor Economics (3)**

*Prerequisite:* ECON 101 or consent of instructor. Analysis of the operation of the labor market. Theories of wages, unemployment, unions and income distribution. (Cross listed with LABR 510. May not be repeated under alternate prefix.)

**ECON 511 Collective Bargaining (3)**

*Prerequisite:* upper division standing or consent of instructor. Collective bargaining, legislation; case studies in labor law. (Cross listed with LABR 511. May not be repeated under alternate prefix.)

**ECON 512 Economics of Poverty and Discrimination (3)**

*Prerequisites:* ECON 301 and ECON 311. Application of economic theory to problems of poverty and discrimination. Examines current structure of income distribution, poverty and empirical evidence on discrimination, and surveys current policy.

**ECON 515 Economics of Crime and Justice (3)**

*Prerequisite:* upper division standing or consent of instructor. Economic theory of choice and rationality applied to analysis of crime. Examines social policy to minimize losses due to crime and the costs of crime control. Economics of crime generation, law enforcement, prosecution, corrections, and punishment.

**ECON 516 Law and Economics (3)**

*Prerequisites:* ECON 100 and 101 or 305. Application of economics to law and legal institutions. Effects of laws on resource allocation. Public regulation of the market. Antimonopoly, landlord-tenant laws, regulation of business and financial markets, environment, zoning, income and wealth distribution, tort and property law.

**ECON 520 Industrial Organization (3)**

*Prerequisites:* ECON 301. Determinants/linkages between market structure, firm conduct, and industrial performance; market power, nonlinear pricing, product differentiation, quality and advertising; oligopoly and strategic behavior; firm organization, ownership and control; entry and exit mergers and antitrust. Paired with ECON 820. Students who have completed ECON 820 may not take ECON 520 for credit.

**ECON 535 Urban Economics (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Analysis of the economic forces which determine a city's income, employment, land use pattern, industrial structure, and public sector. Particular attention to housing, central city-suburban relationships, transportation, local labor market, local public finance and neighborhood economic development. (Cross listed with USP 535. May not be repeated under alternate prefix.)

**ECON 550 Environmental Economics (3)**

*Prerequisite:* ECON 301 or consent of instructor. Economic causes and consequences of environmental problems; role of regulatory instruments in mitigating environmental problems; application of economic tools and non-market valuation techniques to analyze local and international environmental policies. Paired with ECON 850. Students who have completed ECON 850 may not take ECON 550 for credit.

**ECON 560 Economics of Growth (3)**

*Prerequisites:* ECON 301 and 302, upper division standing or consent of instructor. Course examines basic growth models and applies these models to growth in the US, Europe and the World.

**ECON 601 Applied Microeconomics (3)**

*Prerequisite:* ECON 301, 302, and ECON 311. In-depth coverage of selected topics in applied microeconomics. Review of empirical and experimental findings. Techniques of applied research. Paired with ECON 801. Students who have completed ECON 801 may not take ECON 601 for credit.

**ECON 605 Seminar: History of Economic Thought (3)**

*Prerequisites:* ECON 301 and ECON 302. Development of economic thought. Reports and discussions based on the works of classical, neoclassical, and contemporary economists.

**ECON 611 International Trade Theory and Policy (3)**

*Prerequisites:* ECON 301 or consent of instructor; upper division standing. Basic models of trade; Ricardian model, Heckscher-Ohlin model, and newer theories as well as policy applications, tariff and non-tariff barriers, the WTO and regional integration such as NAFTA and the EU. Paired with ECON 811. Students who have completed ECON 611 may not take ECON 811 for credit.

**ECON 612 International Finance and Macroeconomics (3)**

*Prerequisites:* ECON 302 or consent of instructor; upper division standing. Theory and institutions involved in exchange rates and exchange rate regimes, open economy macroeconomics, debt crises, and international institutions such as the IMF and EMU. Paired with ECON 812. Students who have completed ECON 812 may not take ECON 612 for credit.

**ECON 615 Mathematical Economics (3)**

*Prerequisite:* MATH 226 or equivalent. Optimization, equilibrium analysis, and decision-making. Classwork, 2 units; laboratory, 1 unit.

**ECON 616 Experimental Economics and Game Theory (3)**

*Prerequisite:* ECON 301, ECON 312, MATH 226, and upper division standing or consent of instructor. Introduction to the part of the economic theory that explores strategic interactions among economic agents. Game theory is used in the analysis of a number of socio-economic situations.

**ECON 620 Economic Development (3) [GE]**

*Prerequisites:* ECON 100 and 101 or equivalents. Comprehensive study of the economic problems, both domestic and international, facing less developed countries. Analysis of the roles of domestic, private, and public sectors as well as international institutions such as the World Bank, the United Nations, and multinational corporations.

**ECON 630 Econometric Theory (3)**

*Prerequisites:* ECON 100, ECON 101, ECON 312, or equivalents. Theories of estimation; illustrations of econometric research. Forecasting with econometric models. Computer applications. Classwork, 2 units; laboratory, 1 unit.

**ECON 635 Economics of Globalization (3) [GE]**

*Prerequisites:* ECON 100, ECON 101, or consent of instructor. Economic debate surrounding process of globalization. Economic causes/consequences of market integration: domestic labor markets, international trade and multinationalization production, integration of financial markets. (Cross listed with I R 635. May not be repeated under alternate prefix.)

**ECON 640 Health Economics Analysis and Research (3)**

*Prerequisite:* upper division standing; ECON 301 and 311. Introduction to health economics; why health care is different from other goods; analysis of the US health care market; health in development and health evaluation. Paired with ECON 840. Students who have completed ECON 840 may not take ECON 640 for credit. (Plus-minus ABC/NC grading only.)

**ECON 675 Natural Resource Economics (3)**

*Prerequisites:* ECON 301 or consent of instructor. Introduction to the economics of natural resources. Models of optimal depletion of nonrenewable resources and optimal use of renewable resources. Model application to energy, forests, fisheries, water, and climate change. Focus on computation solutions using Excel and Mathematica.

**ECON 690 Senior Seminar: Economic Inquiry and Analysis - GVAR (3)**

*Prerequisites:* ENG 214 or equivalent with grade of C- or better; upper division standing; ECON 301, 302, and 312; ECON 312 may be taken concurrently with consent of instructor. Economic analytical methods applied to important economic issues confronting society. Application of theory and methods learned during previous courses. Assessment of ability to employ economic reasoning in discussion, written exercises and reports, and in-class presentations. ABC/NC grading only.

**ECON 699 Special Study (1-3)**

*Prerequisites:* consent of instructor, major adviser, and department chair. Supervised study of a particular problem selected by the student.

**Graduate Courses****ECON 701 Seminar: Microeconomic Theory (3)**

*Prerequisites:* ECON 301, ECON 302, and ECON 615. ECON 615 may be taken concurrently. Behavior of firms and households; determination of prices and resource allocation in a decentralized economy.

**ECON 702 Seminar: Macroeconomic Theory (3)**

*Prerequisites:* ECON 615, ECON 630, ECON 701, or consent of instructor; graduate standing. National income and employment determination: income distribution; wages, prices and economic growth; government policy.

**ECON 725 Applied Data Analysis in Economics (3)**

*Prerequisites:* ECON 615 and ECON 630, or equivalents. Applied data methods including econometrics and statistical packages such as SAS.

**ECON 730 Seminar: Econometric Methods (3)**

*Prerequisite:* ECON 630 or consent of instructor. Application of statistical methods to mathematical economic models. Econometric research.

**ECON 801 Applied Microeconomics (3)**

*Prerequisite:* ECON 301, ECON 302, ECON 630, and ECON 701. Paired with ECON 601. See ECON 601 for course description. Students who have completed ECON 601 may not take ECON 801 for credit.

**ECON 805 Public Economics (3)**

*Prerequisites:* ECON 301, graduate standing or consent of instructor. Paired with ECON 505. Students who have completed ECON 505 may not take ECON 805 for credit.

**ECON 811 International Trade Theory and Policy (3)**

*Prerequisites:* ECON 301 and 302, graduate status, or consent of instructor. For course description, see ECON 611. Paired with ECON 611. Students who have completed ECON 811 may not take ECON 611 for credit.

**ECON 812 International Finance and Macroeconomics (3)**

*Prerequisites:* ECON 301, 302, and graduate status. For course description, see ECON 612. Paired with ECON 612. Students who have completed ECON 812 may not take ECON 612 for credit.

**ECON 820 Industrial Organization (3)**

*Prerequisites:* ECON 301, graduate status, or consent of instructor. For description, ECON 520. Paired with ECON 520. Students who have completed ECON 520 may not take ECON 820 for credit.

**ECON 840 Health Economics Analysis and Research (3)**

*Prerequisite:* graduate standing; ECON 701 and ECON 312 or equivalent. Paired with ECON 640. See ECON 640 for course description. Students who have completed ECON 640 may not take ECON 840 for credit. (AB/NC grading only.)

**ECON 850 Environmental Economics (3)**

*Prerequisite:* ECON 301, graduate standing or consent of instructor. For description, see ECON 550. Paired with ECON 550. Students who have completed ECON 550 may not take ECON 850 for credit.

**ECON 851 Topics in Applied Economics (3)**

*Prerequisite:* ECON 701, ECON 725, ECON 730, or consent of instructor; graduate standing. Topic to be specified in Class Schedule. May be repeated for a total of 6 units as topics vary.

**ECON 890 Graduate Seminar in Applied Economics (3)**

*Prerequisites:* ECON 700, ECON 701, graduate status, or consent of instructor. Must be taken concurrently with ECON 725. Prepares students for the culminating experience as Masters' students. Students create and develop an applied research topic in conjunction with the Economics faculty.

**ECON 898 Master's Thesis (6)**

*Prerequisite:* consent of chair of candidate's committee for the Master of Arts. An investigation of a topic or problem in economics. The student develops the project, organizes and completes the written study, and defends the findings with the committee. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**ECON 899 Independent Study (1-3)**

Open to graduate students who have demonstrated ability to do independent work. Enrollment by petition to department.



**EDUCATION***Undergraduate Courses***EDUC 603 Working in Collaborative Partnerships (1)**

*Prerequisite:* upper division or graduate standing. Integrated and collaborative educational and human services. Interagency partnerships, including key phases of development, barriers, group processes, and interprofessional teamwork. CR/NC grading only. (Cross listed with BSS 603. May not be repeated under alternative prefix.)

**EDUC 660 Preparing for the Teaching Profession (1)**

*Prerequisite:* upper division standing or consent of instructor. Review of teaching careers in California, including supply and demand, introduction to the California Standards for the Teaching Profession (CSTP), credentialing process and types of credentials in the state, and the process for applying to a credential program at SFSU. CR/NC grading only.

**Graduate Courses****EDUC 703 School/Community Partnership For Change (3)**

Goals and processes of school/community partnerships designed to meet the contemporary needs of children, youth, and families. Interprofessional approach to role of school/community members as change agents. Priority enrollment given to graduate students in education, public administration, counseling, nursing, social work.

**EDUC 803 Integrated and Collaborative Services for Children (3)**

Interdisciplinary course of competencies related to integration of services for at-risk children in educational programs. Topics: systems and agencies available; relationship of integrated services in education; eligibility for various services; assessment procedures; involvement of family; and collaboration in public schools.

**EDUC 805 Sexuality Education and Policy (3)**

*Prerequisite:* graduate status or consent of instructor. Cross listed with SXS 805. For course description, see SXS 805. (May not be repeated under alternate prefix.)

**EDUC 998 Doctoral Dissertation in Educational Leadership (3-9)**

*Prerequisite:* consent of instructor. Independent student research leading to the completion of the doctoral dissertation. Open only to students in the joint doctoral program in educational leadership. May be repeated for a total of 15 units.

**EDUCATIONAL ADMINISTRATION***Graduate Courses***EDAD 713 Administrative Processes (3)**

Leadership of faculty groups, problem analysis, problem solution, decision-making, communication in school settings.

**EDAD 714 Practicum: Site Administration (3)**

Competencies needed by a school site administrator. Principles and techniques of planning, organizing, managing, problem-solving, community relations, program and personnel evaluation, accounting, and budgeting at a school site.

**EDAD 723 School Administration (3)**

Various organizational and managerial roles of school administrators; the examination of a wide range of responsibilities. Case analysis of problems.

**EDAD 733 Curricular Leadership for Multicultural Education (3)**

Dynamics by which curricular and instructional practices are implemented in diverse settings; reviews contemporary curricular and instructional issues; assesses practical dimensions a leader needs to monitor/enhance performance of students and teachers in multicultural environments.

**EDAD 743 Educational Planning, Technology, and Evaluation (3)**

Nature of planning and evaluation for instructional program development in diverse educational settings. Program, staff, and administration roles in evaluation processes; applications of new technologies to instructional program planning, implementation, and evaluation.

**EDAD 753 Human Resource Administration in Education (3)**

Approaches to recruiting personnel to meet the changing needs of educational systems. Strategic planning for human resource development, recruitment, induction, evaluation, professional development, and incentive systems. Compliance with state and federal employment laws.

**EDAD 763 Law and Education (3)**

Judicial entanglements in education: how public educational agencies respond procedurally to legal problems; current legal issues in terms of key constitutional principles, legal requirements, and what case law requires or disallows in educational policy and practice. Rights and responsibilities: equal educational opportunity.

**EDAD 774 Change Processes and Education (3)**

Alternative models of change, how and why change is necessary as an organizational process: underlying conflicts and tasks of leaders in restructuring alternative teaching and learning environments. Initiatives and models used to examine change issues in school settings.

**EDAD 784 Special Education Administration (3)**

Current issues related to planning, management, supervision, and evaluation of special education programs. Role of special education personnel, key problem areas, working with disparate groups to achieve effective programs for children with disabilities. Review of regulations, procedures, and legal issues as they impact the special education administrator's role.

**EDAD 822 Practicum: Leadership in Supervision and Curriculum Development (3)**

Principles and techniques for developing curriculum and improving teachers in service. Administrative organization, group processes, and communication skills in supervision work. Application and demonstration of supervisory skills and competencies.

**EDAD 823 Practicum: Evaluation, Research, and Planning (3)**

*Prerequisite:* EDAD 743. Organization of evaluation programs, staffing, interpreting data to public and budgetary considerations. Application and testing in classroom and field assignment situations.

**EDAD 824 Practicum: Personnel Management (3)**

Planning, conflict resolution, and selected personnel procedures. Application and testing the field under the supervision of specialists.

**EDAD 850 Professional Development Practicum (2)**

*Prerequisite:* admission to Professional Administrative Services Credential program. Examination of educational leadership; personal values, knowledge base, skills, experiences, and attitudes. Professional development goals, objectives, and strategy for continued professional development.

**EDAD 860 Educational Administrative Competence Practicum (2)**

*Prerequisite:* completion of planned program study. Appraisal of students' professional development and administrative competence by assessing achievement of goals and objectives defined in the induction plan developed in EDAD 850. CR/NC grading only.

**EDAD 891 Internship--Educational Administration I (3)**

Internship for exploration and analysis of the functional aspects of school administration. The internship is the culminating experience for the Preliminary Administrative Services Credential and master's degree in educational administration and concludes with a comprehensive oral examination.

**EDAD 892 Internship--Educational Administration II (3)**

*Prerequisite:* EDAD 714 or 891. Internship for exploration and analysis of the functional aspects of school administration. The internship is the culminating experience for the Preliminary Administrative Services Credential and master's degree in educational administration and concludes with a comprehensive oral examination.

**EDAD 899 Special Study (1-3)**

An intensive study of a particular problem under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open only to regularly enrolled students.

**EDUCATIONAL LEADERSHIP***Doctoral Courses***EDDL 910 Transformational Leadership and Coalition Building (3)**

*Prerequisite:* enrollment in Ed.D in Educational Leadership. Reviews research about educational leadership, emphasizing transformational leadership, creating and implementing a vision; develop skills in identifying, interacting with, and mobilizing key constituents, emphasizing board relations; includes introduction to important leaders in the field.

**EDDL 911 Organizational Behavior, Change, and Systemic Reform (3)**

*Prerequisite:* Enrollment in Ed.D in Educational Leadership. Presents key constructs from organizational theory that are critical to understanding, analyzing, and implementing organizational and systemic reform; discusses key measures of accountability used in California; provides case studies of district and college systemic reform efforts.

**EDDL 912 Advanced Educational Leadership Seminar (3)**

*Prerequisite:* Enrollment in the Ed.D. program in Educational Leadership. Capstone course in Ed. D. program. Addresses key educational challenges embedded in high-level educational leadership positions through close interaction with regional educational leaders. Participants develop and present dissertation prospectuses to panels of local educational leaders.

**EDDL 920 Literacy and English Language Learners (3)**

*Prerequisite:* enrollment in Ed.D. in Educational Leadership. Reviews recent research on best practices for developing the academic skills of English language learners, K-adult; includes curriculum and instruction issues at the administrative level, supervision of instruction and teacher evaluation, and approaches for implementing best practices.

**EDDL 921 Theories of Learning and Student Development in Math and Science (3)**

*Prerequisite:* admission to Ed.D. program. Students analyze theories and promising practices for improving academic and life opportunity outcomes in science, technology, engineering, and mathematics.

**EDDL 930 Qualitative Analysis of Race, Class, and Gender in Society and Education (3)**

*Prerequisite:* Enrollment in Ed.D. in Educational Leadership. Presents research on issues of race, class, gender and disability in education in historical and contemporary contexts; emphasizes evidence-based, qualitative data analysis; introduces qualitative analysis of data, assumptions, designs, collection, analysis, and research ethics.

**EDDL 931 Quantitative Analysis of Structural Inequality in Education (3)**

*Prerequisite:* Enrollment in Ed.D. in Educational Leadership. Presents research on structural inequality in education from contemporary and historical perspectives; emphasizes evidence-based, quantitative analysis of data on equity and achievement gaps in education; addresses quantitative methods, descriptive analysis, measurement, and research ethics.

**EDDL 932 Transformational Strategies to Address Inequality in Education and Society (3)**

*Prerequisite:* Enrollment in Ed.D. Educational Leadership Program. Research on historical and contemporary responses to inequality in education; includes multicultural education, culture of poverty, single race/sex schools; new trends and strategies affecting equity in education, including immigrants, sexual identity, age, gender, organizations, and special needs learners.

**EDDL 940 Policy, Law and the Political Economy of Education (3)**

*Prerequisite:* Enrollment in Ed.D. in Educational Leadership. Public policy processes and legislation related to education; public financing structures; schooling and school law, including fairness and justice, as well as common problems encountered in districts; special needs learner issues (i.e. older adult learners and students with disabilities).

**EDDL 941 Accountability and Performance of Educational Organizations (3)**

*Prerequisite:* Enrollment in Ed.D. in Educational Leadership. Addresses strategic planning processes, development of performance and institutional effectiveness measures, including California education accountability structures and introduction to program evaluation, incorporating quantitative and qualitative data.

**EDDL 942 Integrated Planning and Budget (3)**

*Prerequisite:* Enrollment in Ed.D. in Educational Leadership. Budgeting and financial management in public education; budget as manifestation of mission, goals, application of equity at district level; quantitative budget analysis skills, data presentation; financial management systems, focus on information technology, special needs learner impacts.

**EDDL 944 Human Resource Management in Education (3)**

*Prerequisite:* Enrollment in the Ed. D. program in Educational Leadership. Overview of human resources management issues in public education organizations; includes legal contexts, labor relations, faculty professional development, student services, assessment and evaluation, supervision of instruction and employees and teacher evaluation.

**EDDL 945 Communication Techniques & Strategies in Educational Leadership (3)**

*Prerequisite:* enrollment in Ed.D. program in Educational Leadership. Review research in communication styles and techniques with emphasis on cross cultural communication; training in public communication techniques and analysis and improvement of communication styles; use of technology, communication with public media, and date presentation.

**EDDL 952 Field-Based Residency in Educational Leadership (3)**

*Prerequisite:* Enrollment in the Ed.D. in Educational Leadership program. Focus on collecting data for dissertation; includes mentorship and leadership seminars with current school leaders. Individual conference and independent study; examine district-level teaching, learning, assessment, management, and policy issues.

**EDDL 961 American Education Leadership (3)**

*Prerequisite:* admission to Ed.D. program. To be completed during the first fall semester of the Ed.D. program. Introduction to doctoral-level reading, writing, research skills, and research problems in the field of educational leadership. Plus-minus letter grade only.

**EDDL 962 Analyzing Critical Issues in Education (3)**

*Prerequisite:* EDDL 961. To be completed during the first spring semester of the Ed.D. program. Continuation of the development of doctoral-level reading, writing, research skills, and research problems in the field of educational leadership. Plus-minus letter grade only.

**EDDL 963 Seminar: Linking Theory with Practice (3)**

*Prerequisite:* admission to Ed.D. program. To be completed during the first summer session of the Ed.D. program. Guides student development of a research problem and literature review appropriate for dissertation study. Plus-minus letter grade only.

**EDDL 964 Research Seminar: Analyzing Critical Issues in Teaching and Learning (3)**

*Prerequisite:* Enrollment in Ed.D. Program in Educational Leadership. Introduction to mixed methods research; critique examples of published research and investigate qualitative and quantitative problem statements and methodologies. (To be completed in the fourth semester.)

**EDDL 965 Dissertation Research Design (3)**

Development of a research design suitable for the dissertation; to be completed during the fifth semester.

**EDDL 966 Dissertation Data Collection (3)**

*Prerequisite:* EDDL 965. Challenges in data collection for the dissertation; collection and analysis processes. (Plus-minus letter grade only.)

**EDDL 998 Dissertation (3)**

*Prerequisite:* advancement to candidacy. Independent student research leading to the completion of the doctoral dissertation; includes dissertation support seminar for sharing and critique of preliminary research findings.

**EDDL 999 Special Study (1-3)**

*Prerequisite:* classified standing in Ed.D. in Educational Leadership; enrollment by petition. Intensive study of a particular problem. Study is planned, developed, and completed under the direction of program faculty. Open only to doctoral students who have demonstrated ability to do independent work.

**ELEMENTARY EDUCATION***Undergraduate Courses***E ED 100 CSET Preparation (1)**

*Prerequisite:* intention to pursue a Multiple Subject Teaching Credential. Designed for students pursuing an elementary teaching credential. Preparing for the California Subject Examinations for Teachers. CR/NC grading only.

**E ED 200 Perspectives on the Social, Cultural, and Historical Foundations of Education (3)**

*Prerequisite:* Enrollment in the Liberal Studies Integrated Teacher Education (LSITE) program. Designed for LSITE students pursuing a BA in Liberal Studies and the Multiple Subject Credential concurrently. Examines social, cultural, and historical foundations of education.

**E ED 305 Nurturing Children's Social and Emotional Development in Culturally Responsive Early Childhood Settings (3)**

*Prerequisites:* CFS 320 and PSY 330. Theories and educational programs focusing on children's social and emotional development in culturally responsive early childhood settings. Identity formation, self-esteem, attachment relationships, friendships, prosocial behavior.

**E ED 306 Collaborations and Partnership with Families in ECE (3)**

*Prerequisite:* upper division standing or consent of instructor. Theory and practical models for understanding and working with diverse children and families in and out of school settings.

**E ED 600 The Young Child: Development and Learning (3)**

*Prerequisite:* upper division standing. Child development from infancy to school age. Social, emotional, cognitive, and physical development related to practical implications for programs. Developmental learning sequences in relation to curriculum and teaching styles.

**E ED 602 Integrated Curricula for Young Children (3)**

*Prerequisite:* upper division standing or consent of instructor. Creation of integrated curricula for young children (0-8 years) in culturally responsive, early childhood setting. Learning materials appropriate to different ages; functions of play and creativity in curriculum development.

**E ED 604 Working with Parents in Group Programs for Young Children (3)**

*Prerequisite:* upper division standing. Understanding and overcoming obstacles to effective communication between educators and parents through conferences, home visits, participation on boards and committees, and problem-solving experiences. The rationale for parent involvement.

**E ED 607 Pre-School Administration: Developing Team Relationships (3)**

*Prerequisite:* upper division standing or consent of instructor. Ingredients necessary for a functioning staff in child development programs. Dynamics of an interdisciplinary early childhood team: administrators, teachers, parents, and support personnel. Development of roles and communication skills.

**E ED 610 Observation and Assessment Techniques with Young Children (3)**

*Prerequisite:* CFS 320, PSY 330, and consent of instructor. Observation and assessment of children's behavior and development in diverse early childhood settings and communities. Informal observational techniques, role of assessment in curriculum planning.

**E ED 611 Infant-Toddler Development (3)**

*Prerequisite:* upper division standing or consent of instructor. Thorough and practical examination of developmental theory from 0-3 years. Practical applications to planning group programs in a variety of settings. Role of relationships as seen in many contexts.

**E ED 613 Creative Arts for the Young Child (3)**

*Prerequisite:* upper division standing. Exposure to modes for creative self-expression available to young children. Theories of creativity applied to developing teaching techniques. Visual arts, music and movement, and how to set up and teach in a learning center for creative arts.

**E ED 614 Developing Basic Mathematics and Science Concepts with Young Children (3)**

*Prerequisite:* upper division standing. Development of problem solving abilities related to mathematics and science for preschool-age children. Materials and techniques for teaching using an inquiry approach while incorporating everyday experiences.

**E ED 615 Nature Study and Outdoor Education for Young Children (3)**

*Prerequisite:* upper division standing. Helping teachers of young children to explore their sense of wonder and connection with the out-of-doors. Finding nature in the city and expanding outdoor experiences. Field trips to study sites throughout the Bay area.

**E ED 616 Children's Language Development (3)**

*Prerequisite:* upper division standing or consent of instructor. Children's language learning in culturally and linguistically diverse early childhood settings.

**E ED 619 Play and Play Environments (3)**

*Prerequisite:* upper division standing. The role of play in the development of young children. The educator's role in providing an environment which is physically safe, intellectually challenging, and emotionally nurturing, where young children have maximum opportunity to learn through play. Designing environments and programs that recognize the importance of play. (Formerly EED 697)

**E ED 640 Gear Up Tutors in Schools (3)**

*Prerequisite:* must be accepted in the GEAR UP program. Explore and identify best educational practices to prepare middle school students in San Francisco for college level studies and to gain access to higher education. May be repeated for 18 units. (CR/NC grading only)

**E ED 668 Anti-bias Curricula for Young Children (3)**

*Prerequisite:* upper division standing. Introduces approaches for integrating education about diversity in early childhood programs. Helping young children develop positive self concept and attitudes about gender, race, ethnicity, and disabilities. Critical thinking skills for challenging bias and thriving in multicultural society.

**E ED 687 Seminar: Field Experience (1-3)**

*Prerequisite:* enrollment limited to Multiple Subject Credential candidates. Understanding school and classroom culture, roles of the teacher in contemporary urban school settings. Instruction, teaching, evaluation, professional responsibilities and opportunities, and community relationships. Application of theory to practice. May be repeated for a total of 6 units. CR/NC grading only.

**E ED 697 Special Topics in Elementary Education (1-3)**

*Topic to be specified in Class Schedule.* May substitute for credential requirements only when approved in advance by adviser.

**E ED 699 Special Study (1-3)**

An intensive study of a particular problem under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open to regularly enrolled students only.

**Graduate Courses****E ED 700 Social, Emotional, and Physical Development in Early Childhood Education Sociocultural Contexts (3)**

Theory and research on children's social, emotional, and physical development across sociocultural contexts. Relationship to children's learning, implications for early childhood education, and the design of quality programs for young children (0-8 years).

**E ED 701 Social, Cultural, and Historical Foundations of Education (3)**

*Prerequisites:* upper division standing and consent of instructor. *Intended for Multiple and Single Subject Credential candidates.* Examines, from a critical perspective, historical, social, and cultural foundations for theoretical frameworks and pedagogical practices for the classroom.

**E ED 703 Family Literacy Studies of the Elementary Age Child (3)**

*Prerequisite:* admission to MA in Elementary Education Program. Research and theory of cross-cultural family literacy practices. Patterns of parent engagement in elementary age students' home and school literacy practices.

**E ED 704 Children's Play Development in School and Community (3)**

Role of young children's play in cross-cultural educational and community settings. Innovative practices and curriculum for promoting positive and meaningful play experiences in and out of school.

**E ED 705 Child Development Through Literature Study in the Elementary Classroom (3)**

Principles of child development found through an examination of children's literature. Personality, emotional, and intellectual development: multi-cultural, home influences, and the exceptional child.

**E ED 707 Cognitive Development in Early Childhood Education Sociocultural Contexts (3)**

Theory and research on children's (0-8 years) intellectual development, as framed by sociocultural contexts. Application to instruction, curriculum development, and design of environments for young children.

**E ED 708 First and Second Language Development in Early Childhood Education (3)**

*Prerequisite:* consent of instructor. Theory and research on children's (0-8 years) first and second language development in multicultural settings. Role of culture and socialization; practical applications for children's oral and written language learning.

**E ED 709 Early Childhood Education Curriculum in Pluralistic Society (3)**

Analyze and interpret works of various scholars that have influenced ECE curricula; discuss who decides the context of knowledge, instructional methods, as well as the evaluation system in contemporary ECE practices.

**E ED 710 Children's Early Literacy Development in Early Childhood Education (3)**

*Prerequisite:* permission of instructor. Theory, practice, and policy on children's (0-8 years) acquisition of written language in multicultural setting. Emphasis on role of culture and socialization, and practical applications of successful classroom and childcare instruction.

**E ED 715 Families in Early Childhood Settings and Communities (3)**

*Prerequisite:* E ED 717 or consent of instructor. Research, policy, and practice related to young children and families in diverse early childhood settings and communities. Family structures, cultural perspectives, family-school relationships, family literacy, and outreach programs.

**E ED 717 Narrative Inquiry and Memoir in Early Childhood Education (3)**

*Prerequisite:* consent of instructor. Focus on autobiographical accounts (memoir) and stories (narrative inquiry) for understanding teaching and learning. Practical applications to teaching and use of narrative inquiry for qualitative research.

**E ED 720 Research and Practice in Language and Literacy Education (3)**

*Prerequisite:* ISED 797. Introduction to leading ideas, and methods in educational research with focus on language and literacy. Topics include: identification of research problems, research questions, review of the literature, research plans, design issues, data analysis, and reporting. (Plus-minus letter grading only.)

**E ED 721 International Education in Early Childhood and Elementary Education (3)**

*Prerequisite:* consent of instructor. Interdisciplinary course on research, policy, and practice relating to international education in early childhood and elementary school. Topics include international school structures, school demographics, philosophies of schooling, curricula, immigration, gender, and student achievement.

**E ED 723 Inservice Leadership in Reading (3)**

*Prerequisites:* consent of adviser and course instructor. Development of professional growth in reading; determining staff needs; designing programs of in-service education; problems of consultation and program development, aiding in development of curriculum and improvement of instruction.

**E ED 725 Classroom Issues in Language, Literacy, and Culture (3)**

*Prerequisite:* E ED 708 or 678 or 720 or consent of instructor. Research and theory on language and literacy development in linguistically and culturally diverse communities and classrooms; first and second language acquisition; emergent literacy; implications of research for culturally responsive teaching and classroom organization.

**E ED 726 Teaching Process Writing in Elementary Classrooms (3)**

Research teaching writing/reading in the classroom. Process writing and how oral language and reading are supported by teaching narrative, poetic, and non-fiction writing. Portfolio assessment and evaluation of writing pieces.

**E ED 732 Teaching Reading, Language Arts, and Social Studies in Elementary School (3-6)**

*Prerequisite:* admission to Multiple Subjects Credential program. Integrating reading, language arts, and social studies in multicultural elementary school classrooms. Foundations of curriculum, theory and method in literacy development, and concept attainment in the social studies. May be repeated for a total of 7 units.

**E ED 737 Teaching Social Studies, Social Justice, and Literacy: Grades 3-6 (3)**

*Prerequisites:* E ED 783, E ED 682, E ED 684, E ED 749. *Must be taken concurrently with* E ED 679, E ED 647, E ED 657, E ED 648, E ED 658. Frameworks and methods for implementing integrated curriculum in elementary school, focusing on social studies content and social justice perspective. Instruction in use of effective expository literacy strategies for students in grades 3-6. Field practicum required.

**E ED 746 Teaching Practicum Phase I (1-3)**

*Prerequisites:* acceptance to MSC program, E ED 701, ITEC 601. *Must be taken concurrently with* E ED 682, 684, 749, and 783. Developmental field experience in a public elementary school under guidance of a resident teacher. Teaching is planned and practiced at the beginning level based on California State standards. May be repeated for a total of 4 units. CR/NC grading only.

**E ED 747 Teaching Practicum Phase II (1-3)**

*Prerequisites:* E ED 646, 684, 749, 701, 783, ITEC 601. *Must be taken concurrently with* E ED 679 and/or E ED 737, E ED 657. Developmental field experience in a public elementary school under the supervision of a resident teacher. Teaching planned and practiced at the developmental level, based on California State standards. May be repeated for a total of 3 units. CR/NC grading only.

**E ED 748 Teaching Practicum Phase III (1-7)**

*Prerequisites:* EED 646, 682, 684, 701, 749, 783; ITEC 601. *Must be concurrent with* EED 657, 658 (2+ sem. prog.); EED 658 (2 sem. prog.). Final phase of student teaching conducted in a public elementary school under supervision of a resident teacher. Planned and practiced at the competency level. Assessment based on California state standards. CR/NC grading only. May be repeated for a total of 12 units.

**E ED 749 Second Language Acquisition in the Elementary School (3)**

First and second language acquisition theories and their relationship to second language learning; psychological, social, and linguistic aspects of second language acquisition of children; socio-political factors related to language issues.

**E ED 756 Teaching Practicum Seminar Phase I (1-3)**

*Prerequisites:* admission to multiple subject program; first semester enrollment. *Concurrent with* E ED 646, 682, 684, 701, 749, 783. Supports skill in planning, teaching, and assessing all students across elementary school curriculum. Instruction in classroom

**E ED 757 Teaching Practicum Seminar Phase II (1-3)**

*Prerequisites:* E ED 646, 682, 684, 701, 749, 783, ITEC 601. *Must be taken concurrently with* E ED 647. E ED 679 and/or 737, 658, 657, 648 recommended. Development of skills in planning, teaching, and assessing all students across the elementary school curriculum. Instruction in classroom management. Addresses California K-12 content and English language standards. May be repeated for a total of 3 units.

**E ED 758 Teaching Practicum Seminar Phase III (1-3)**

*Prerequisites:* EED 646, 647, 679, 682, 684, 701, 737, 749, 783; ITEC 601. *Must be concurrent with* EED 647, 648 (2 sem. prog.); EED 648, 657 (2+ sem. prog.). Interdisciplinary and project based learning in the elementary school. Topics include home school communication and role of school as social services agency and legal issues. Preparation for final standards based teaching performance assessment. May be repeated for a total of 3 units.

**Seminars in Elementary School Subjects**

The 760-level seminars emphasize five major strands that are initially developed on a generic level through E ED 760 and then addressed more specifically in the selected content area curriculum courses. These interrelated strands are as follows:

**Principles of Child Growth and Development****Principles of Learning and Teaching Analysis of Current Programs and Practices****Trends and Issues in Historical and Contemporary Perspective****Findings from Research**

*These seminars are designed for experienced teachers or those who possess appropriate teaching credentials.*

**E ED 760 Seminar on Social Issues and Curriculum Development (3)**

Social issues and their influence on school organization and curriculum development. Patterns of organization and curriculum in elementary schools.

**E ED 761 School Mathematics: Problem Solving (3)**

*Prerequisite:* consent of instructor. Curriculum development in mathematics. Problem solving strategies as a unifying theme for content selection. (Cross listed with S ED 761. May not be repeated under alternate prefix.)

**E ED 763 Integrating Language, Literacy, and Technology in Elementary School Curriculum (3)**

*Prerequisite:* consent of Elementary Education adviser or instructor. Prepare elementary school teachers to provide English language arts instruction that is enhanced by the thoughtful and effective integration of technology. (Plus-minus letter grading only.)

**E ED 764 Elementary School Social Studies (3)**

*Prerequisite:* consent of Elementary Education adviser or instructor. Curriculum development in social studies methods, materials, and curriculum sequence.

**E ED 765 Elementary School Science (3)**

*Prerequisite:* consent of Elementary Education adviser or instructor. Curriculum development in science methods, materials, and curriculum sequence.

**E ED 767 Elementary School Creative Arts (3)**

*Prerequisite:* consent of Elementary Education adviser or instructor. Curriculum development in creative arts methods, materials, and curriculum sequence.

**E ED 769 Practitioner Research in Elementary Classrooms (3)**

*Prerequisite:* multiple subject credential or consent of instructor. Examination of methods of practitioner research that allow teachers to address problems of practice as they arise in the classroom. Students become familiar with relevant research literature and engage in targeted practitioner research relevant to their current teaching placement.

**E ED 770 Literacy Education Clinic I: Multidisciplinary Assessment of Reading and Language Problems (3)**

*Prerequisites:* E ED 720 and basic teaching credential. On-going classroom, interactive assessment. Administration and interpretation of a variety of tests to identify and design instructional intervention for the correlates of reading and language problems: social, emotional, intellectual, and educational.

**E ED 771 Literacy Clinic II: Multidisciplinary Assessment and Remediation of Language and Literacy Problems (3)**

*Prerequisite:* E ED 770. Theory and proficiency in the practice and adaptation of test administration skills and interactive instructional strategies. Students test and tutor K-12 children with reading and language problems.

**E ED 772 Literacy Education Clinic I (1-3)**

*Prerequisite:* Candidate in Reading Specialist Credential Program. *Must be taken concurrently with* EED 770. Teach one-to-one struggling readers or provide instruction to small groups of struggling readers in an elementary school setting. Candidates use intervention strategies to improve reading. CR/NC only.

**E ED 773 Literacy Education Clinic II (1-3)**

*Prerequisite:* Reading Specialist Candidate; EED 770 and concurrent enrollment in EED 771. Teach in a school setting using intervention reading strategies to assist and support struggling readers who are adolescents. CR/NC only.

**E ED 777 Curriculum and Instruction in Science (3)**

*Prerequisite:* admission to Multiple Subject Credential program. Planning, developing, teaching, and evaluating learning experiences in science. Performance based objectives. Classwork, 1 unit; laboratory, 2 units.

**E ED 781 Curriculum, Instruction, and Assessment for Teacher Leaders (3)**

*Prerequisite:* EED 760. Curriculum, instruction, and assessment for elementary teachers. Examination of the role of leaders in teaching and learning and high quality professional development. Plus-minus ABC/NC (undergraduate) or plus-minus AB/NC (graduate).

**E ED 782 Teaching Reading/Language Arts K-3 (3-4)**

*Prerequisite:* admission to Multiple Subjects Credential program; ITEC 711, and E ED 701. Must be taken concurrently with E ED 684, E ED 749, E ED 783, and E ED 464. Research-based teaching practices for early literacy development. Systematic and explicit instruction in teaching a comprehensive literacy curriculum in grades K-3 that includes oral language development. Basic reading skills, strategic reading behavior, language arts skills, vocabulary and writing development.

**E ED 783 Developmental Teaching and Learning in Diverse School Settings, K-8 (3)**

*Prerequisites:* E ED 701, ITEC 601; acceptance to MSC program. Must be taken concurrently with E ED 684, E ED 682, E ED 749, E ED 646. Theory and research based examination of cognitive, social-emotional, ethical, and physical development in sociocultural contexts including special populations. Impact of culture, family, community, and school. Guided experience in schools.

**E ED 784 Curriculum and Instruction in Mathematics (CLAD Emphasis) (3)**

*Prerequisite:* admission to Multiple Subjects Credential program. Methods and materials for teaching mathematics to linguistically and culturally diverse elementary school students. Review of content of mathematics curriculum, classroom organization, assessment, and guided experiences in schools.

**E ED 785 Literacy Theories: Connections to Classroom Practices (3)**

*Prerequisites:* enrolled in Elementary Education MA Concentration in Language and Literacy. Research on literacy theories that have influenced education in the US. Examination of critical literacy theories, research, and the connections to classroom practices in elementary schools.

**E ED 796 Analyzing Cases of Mathematical Teaching (3)**

Cases of mathematics teaching practice are a catalyst for analytic discussion of assessment, mathematical representation, and student misconceptions. Teaching decisions are evaluated in the context of real classroom situations with regard to their impact on student learning, motivation, and beliefs. (Cross listed with S ED 796. May not be repeated under alternate prefix.)

**E ED 797 Special Topics in Elementary Education (1-3)**

*Topic to be specified in Class Schedule.* Not a substitute for courses required for the university-recommended Early Childhood Specialist Credential. May be repeated for a total of 9 units when topics vary.

**E ED 798 Special Topics in Early Childhood Education (3)**

*Topic to be specified in Class Schedule.* Not a substitute for courses required for the university-recommended Early Childhood Specialist Credential. May be repeated when topics vary.

**E ED 801 Practitioner Inquiry for Administration of Early Childhood Curricula (3)**

*Prerequisites:* E ED 700, E ED 707, E ED 708, or consent of instructor. Application of practitioner research for developing and evaluating early childhood curricula. Reflective practice and collaborative action research methodologies for coordination and administration of curricula.

**E ED 806 Leadership, Adult Supervision, and Family Advocacy (3)**

*Prerequisite:* consent of instructor. Comprehensive study and training in current research, theory, and implementation of administration and leadership goals, strategies, and programs for young children, families, and educators. Adult supervision, leadership, and advocacy in early childhood settings.

**E ED 807 Leadership Development in Mathematics Education (3)**

*Prerequisite:* consent of instructor. Enhancement and development of mathematical ideas and instructional methodologies from a classroom perspective to a theoretical framework. Knowledge of curriculum development and leadership skills; dissemination to other teachers. (Cross listed with S ED 807. May not be repeated under alternate prefix.)

**E ED 820 Seminar in Infant-Toddler Group Care Education Programs (3)**

*Prerequisite:* consent of instructor. Seminar in infant-toddler development. Theory, research, and practice in diverse settings. Temporary issues in infant-toddler care, cross-cultural perspectives, and caregiver models.

**E ED 850 Seminar in Early Childhood Mathematics and Science Curriculum (3)**

*Prerequisites:* E ED 700, 707, 708, or consent of instructor. Planning, developing instructional materials, and evaluating learning experiences for children ages pre-kindergarten to eight in mathematics and the life and physical sciences.

**E ED 856 Assessing Mathematical Thinking (3)**

*Prerequisite:* consent of instructor. Assessment strategies for classroom use; dimensions of students' mathematical thinking and learning. Development of performance assessments includes open-ended tasks and portfolios. (Cross listed with S ED 856. May not be repeated under alternate prefix.)

**E ED 869 Teaching Reading and Writing to Second Language Learners (3)**

*Prerequisite:* basic reading course or basic ESL course. Instructional methods and materials designed to teach reading and writing in K-12 classrooms to students with limited English proficiency. Theories in language and literacy acquisition, socio-psycholinguistics and linguistics. Assessment procedures, lesson development, instructional planning, and organization.

**E ED 878 Multicultural Educational Theory and Practice for the Young Child (3)**

*Prerequisite:* consent of instructor. Relationships among ethnic identity, culture, and human development; multicultural curriculum design and pedagogical strategies that recognize ethnic displays of competence and utilize cognitive preferences developed in particular socialization practices.

**E ED 882 Literacy Instruction in K-12 Classrooms (3)**

Methods, materials, and assessment for teaching diverse reading/language arts to linguistically and culturally diverse students in grades K-12; linguistic and print concepts; reading comprehension; developmental strategies; guided experiences in schools. Preliminary Level I primarily intended for Education Specialist Credential students.

**E ED 890 Seminar on Field Studies in the Elementary Classroom (3)**

*Prerequisite:* IS ED 797. Topics in early childhood and elementary education: classroom-based research methods and reflective practice; planning and implementation of research, including literature review, research design, data collection, analysis, and presentation of findings. CR/NC grading only.

**E ED 895 Field Study (3)**

Alternative culminating study for the Master of Arts in Education conducted under direction of graduate major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**E ED 898 Master's Thesis (3)**

An intensive study of a particular problem under direction of a member of the department. Open only to regularly enrolled students. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**E ED 899 Special Study (1-3)**

An intensive study of a particular problem under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open only to regularly enrolled students.

**ENGINEERING***Undergraduate Courses***ENGR 100 Introduction to Engineering (1)**

*Prerequisites:* high school algebra and trigonometry. Description of the major engineering fields and their sub-fields. Day to day activities of engineers. Engineering professionalism, ethics, communication skills, lifelong learning and career planning. Survival skills. Safety issues and School of Engineering policies.

**ENGR 101 Engineering Graphics (1)**

*Must be taken concurrently with ENGR 100.* Engineering drawing as means of communication. Principles of engineering graphics. Freehand sketching and introduction to AutoCAD. Basic AutoCAD commands. Engineering drawing with AutoCAD. Orthographic projection. Lines and dimensioning. Reading blueprints. Normal, inclined, and cylindrical surfaces. Sectional views.

**ENGR 102 Statics (3)**

*Prerequisites:* MATH 227, PHYS 220. Vector treatment of force systems acting on particles and rigid bodies. Centroids and moments of inertia. Trusses, machines, fluid statics, shear and moment diagrams for beams, and friction. Applications to structural and mechanical problems.

**ENGR 103 Introduction to Computers (1)**

*Prerequisites:* ENGR 101, MATH 226. Introductory course on programming, using a high-level language. Use of algorithms. Program organization, formulation, and solution of engineering problems. Laboratory.

**ENGR 106 Introduction to Engineering Laboratory (1)**

*Must be taken concurrently with ENGR 100.* Project based laboratory. Basic measuring tools. Introduction to MatLab, spreadsheet, and word processing software. Recording, importing, and plotting various data to incorporate into engineering reports. Developing hands-on experience with basic software tools.

**ENGR 120 Introduction to Computer Engineering (3)**

*Prerequisite: high school algebra and trigonometry.* Introduction to the profession, areas of study, university rules and regulations, curriculum requirements, time management and study skills, critical thinking, problem solving skills, ethics, introduction to computers and basic computer skills including graphics, spreadsheet, database, Internet, and web page design. Classwork, 2 units; activity, 1 unit.

**ENGR 200 Materials of Engineering (3)**

*Prerequisite: CHEM 115.* Application of basic principles of physics and chemistry to engineering materials; their structures and properties and the means by which these materials can be made of better service to all fields of engineering. Classwork, 2 units; laboratory, 1 unit.

**ENGR 201 Dynamics (3)**

*Prerequisite: ENGR 102.* Vector treatment of kinematics and kinetics of particles, systems of particles and rigid bodies. Methods of work, energy, impulse, and momentum. Vibrations and time response. Applications to one- and two-dimensional engineering problems.

**ENGR 203 Materials of Electrical and Electronic Engineering (3)**

*Prerequisite: CHEM 115.* Application of basic principles of physics and chemistry to electrical and electronic engineering materials. Conductors, insulators, and semiconductors; electrical conductors; mechanical properties of conductors; manufacturing conductors; electrochemistry; electrical insulators; plastics; magnetic materials; superconductors and optical fibers.

**ENGR 204 Engineering Mechanics (3)**

*Prerequisites: MATH 227, PHYS 220.* Vector treatment of force systems, kinematics and kinetics. Centroids and moments of inertia. Equilibrium of internal stresses. Methods of acceleration, work, energy and momentum. Kinetic differential equations. Vibrations and time response.

**ENGR 205 Electric Circuits (3)**

*Prerequisite: PHYS 230 and MATH 245; MATH 245 may be taken concurrently.* Circuit analysis, modeling, equivalence, circuit theorems. PSpice simulation. Ideal transformers and operational amplifiers. Transient response of 1st-order circuits. AC response, phasor analysis, impedance, power.

**ENGR 206 Circuits and Instrumentation Laboratory (1)**

*Prerequisite: ENGR 205 (may be taken concurrently).* Electrical measurements and laboratory instrumentation. Verification of circuit laws and theorems. Operational amplifier circuits. AC steady-state behavior and frequency response. Transient characteristics of first-order circuits. Introduction to PSpice. Extra fee required.

**ENGR 212 Introduction to Unix and Linux for Engineers (2)**

*Prerequisite: MATH 226 with grade of C or better.* Introduction to software development and program development in the Unix/Linux environment. File system organization and management, editors, utilities, network environment, pattern and file searching, command line interface, scripting languages. Classwork, 1 unit; laboratory, 1 unit. (Plus-minus letter grade only.)

**ENGR 213 Introduction to C Programming for Engineers (3)**

*Prerequisite: MATH 226 with grade of C or better.* Introduction to C programming; defining and analyzing problems; design of algorithms; implementation, testing, debugging, maintenance and documentation of programs; coverage of basic algorithms, programming concepts and data types; C programming of microcontrollers. (Plus-minus letter grade only.)

**ENGR 220 Energy: Resources, Alternatives, and Conservation (3) [GE]**

*Prerequisite: high school level mathematics or consent of instructor.* Energy, natural and renewable resources. Conversion to usable forms of energy. Demand reduction. Effect on resource conservation and environment. Every day usage of energy (in automobiles, homes, and work place) is emphasized.

**ENGR235 Surveying (3)**

*Prerequisites: ENGR 100 and MATH 226.* Surveying: distance, elevation, and angle measurements; contours; topography; vertical and horizontal curves; cut and fill. Layout of right-of-way for railroads, highways, streets; grading; sight distances; design requirements. Interpretation of maps in engineering. Class work, 2 units; laboratory, 1 unit.

**ENGR 240 How Things Work (3) [GE]**

*Prerequisite: Completion of GE Basic Subjects.* Looking inside commonly used gadgets/products to see what scientific principles make them work. Scientific principles from biology, chemistry and physics. Technology impacts on health, society and environment.

**ENGR 290 Modular Elective (1)**

*Prerequisites: sophomore standing. Topic to be specified in Class Schedule.* May be repeated for a total of 3 units when topics vary.

**ENGR 300 Engineering Experimentation (3)**

*Prerequisites: ENGR 200 or 206, ENGR 205, ENG 214 with grade of C- or better.* Engineering experimentation. Characteristics of instrumentation and computerized data acquisition. Design, planning, and documentation of experiments. Common methods of probability and statistics. Classwork, 2 units; laboratory, 1 unit. Extra fee required. This course is first in a series of courses (ENGR 300, 301 or 302, 696, and 697GW) that when completed with a C or better will culminate in the satisfaction of the University Written Eng Proficiency/GWAR if taken Fall 2009 or later. ABC/NC grading only.

**ENGR 301 Electrical Measurements (1)**

*Prerequisites: ENGR 300 and 353; (ENGR 353 may be taken concurrently).* Measurement techniques, device characterization, experimental verification, and PSpice simulation. 2nd-order transient and frequency responses. Characterization of diodes, BJTs, and FETs. Diode circuits, transistor amplifiers, simple logic gates. Laboratory. Extra fee required. This course is second in a series of courses (ENGR 300, 301 or 302, 696, and 697GW) that when completed with a C or better will culminate in the satisfaction of the University Written Eng Proficiency/GWAR if taken Fall 2009 or later. ABC/NC grading only.

**ENGR 302 Experimental Analysis (1)**

*Prerequisites: ENGR 300, 304 (maybe taken concurrently), and 309.* Experimental investigation and analysis of engineering systems: structural elements, fluid devices, and thermal systems. Use of computers for data acquisition. Laboratory. Extra fee required. This course is second in a series of courses (ENGR 300, 301 or 302, 696, and 697GW) that when completed with a C or better will culminate in the satisfaction of the University Written Eng Proficiency/GWAR if taken Fall 2009 or later. ABC/NC grading only.

**ENGR 303 Engineering Thermodynamics (3)**

*Prerequisite: PHYS 240.* Application of thermodynamics to a variety of energy exchanging devices; properties of the pure substance, ideal gases, and mixtures; power and refrigeration cycles.

**ENGR 304 Mechanics of Fluids (3)**

*Prerequisites: ENGR 201 and PHYS 240.* Statics and dynamics of incompressible fluids, dimensional analysis, and similitude; fluid friction, laminar, and turbulent flow in pipes; forces on submerged structures; fluid measurements.

**ENGR 305 Linear Systems Analysis (3)**

*Prerequisites: MATH 245, ENGR 205.* Signal and linear system analysis in the time and frequency domains. System response to continuous and discontinuous signals. Convolution. Fourier series, Fourier transform and Laplace transform. State-space methods.

**ENGR 306 Electromechanical Systems (3)**

*Prerequisite: grade of C or better in ENGR 205.* Electromechanical energy conversion. Operating characteristics of transformers; DC and AC rotating machines: speed, torque, and profile control. Motion control system using stepper motors. System design, specifications, and simulation.

**ENGR 309 Mechanics of Solids (3)**

*Prerequisites: ENGR 102 and 200.* Shear and bending moment diagrams. Analysis of bending and shear stresses in beams. Stress transformation and failure theories. Deformation of beams. Column buckling. Torsion. Elastic and ultimate resistance of materials.

**ENGR 309 Mechanics of Solids (3)**

*Prerequisites: ENGR 102 and 200 (may be taken concurrently).* Shear and bending moment diagrams. Analysis of bending and shear stresses in beams. Stress transformation and failure theories. Deformation of beams. Column buckling. Torsion. Elastic and ultimate resistance of materials.

**ENGR 315 Systems Analysis Lab (1)**

*Prerequisites: concurrent enrollment in ENGR 305 recommended.* Laboratory exercises on signal and linear systems in time and frequency domains using Matlab. Linearity and time invariance. Solution of differential equations. Convolution. Fourier series and Fourier transform. Laplace Transform. State-space methods

**ENGR 323 Structural Analysis (3)**

*Prerequisite: ENGR 309.* Structural engineering, including standards and codes. Determination of loads, discussion of load path. Analysis of statically determined structures. Forces within statically indeterminate structures. Structural analysis software. Classwork, 2 units; laboratory, 1 unit.

**ENGR 350 Introduction to Engineering Electromagnetics (3)**

*Prerequisites: grades of C or better in MATH 245 and PHYS 240.* Transmission lines. Vector analysis. Static electric and magnetic fields. Boundary value problems. Maxwell's equations.

**ENGR 353 Electronics (3)**

*Prerequisites:* grades of C or better in ENGR 205 and ENGR 206. Concurrent enrollment in ENGR 301 recommended. PN Diodes, BJTs, and MOSFETs. Semiconductor device basics, characteristics and models. Diode applications. Transistor biasing, basic amplifier configurations, and basic logic circuits. PSpice simulation. ENGR356 Basic Computer Architecture (3)

*Prerequisite:* ENGR 205 with a grade of C or better. Number systems. Design of combinational and sequential circuits. Digital functional units such as adders, decoders, multiplexers, registers, and counters. Karnaugh maps and Boolean algebra. State-machine design. Organization of storage, dataflow, and control units. Computer peripheral devices.

**ENGR 357 Basic Digital Laboratory (1)**

*Must be taken concurrently with ENGR 356.* Circuit construction and trouble shooting techniques. EDA tools and simulation. Combinational and sequential circuits. Semiconductor memory. Extra fee required.

**ENGR 364 Materials and Manufacturing Processes (3)**

*Prerequisites:* ENGR 201 and 309. Integration of stress analysis and failure theories with knowledge of materials and manufacturing processes in machine design. Classwork, 2 units; laboratory, 1 unit.

**ENGR 378 Digital Systems Design (3)**

*Prerequisite:* ENGR 356 with grade of C or better. CMOS digital circuits and their electrical properties. Logic circuit design with functional units. Algorithmic sequential machine design. Design with programmable logic devices. Hardware description and simulation language. Classwork, 2 units; laboratory, 1 unit.

**ENGR 410 Process Instrumentation and Control (3)**

*Prerequisites:* ENGR 300 and 305. Principles of control and instrumentation. Control of level, flow, temperature, and pressure. Actuators and transducers. Process modeling.

**ENGR 411 Instrumentation and Process Control Laboratory (1)**

*Prerequisite:* ENGR 410 (may be taken concurrently). Instrumentation for measurement of flow, temperature, level and pressure. Experiments on level, flow, and temperature control. P, PI, PID, and programmable logic controllers.

**ENGR 415 Mechatronics (3)**

*Prerequisites:* ENGR 201 or 204; ENGR 305 with grade of C or better. Basics of a multidisciplinary field that combines electronics, mechanical design and simulation, and control systems. Simulation and design of systems with sensors, controllers and actuators. System elements including common sensors, actuators and various electronic controllers.

**ENGR 416 Mechatronics Lab (1)**

*Must be taken concurrently with ENGR 415.* Experiments connected with mechatronics concepts. Programming microcontrollers, PLCs, computer-based controllers and their selection for mechatronic systems. Sensor and actuator experiments. Mechatronics project.

**ENGR 421 Structural Engineering Laboratory (1)**

*Prerequisite:* ENGR 323. Hands-on experimentation to verify theories and concepts. Develop an understanding of why design specifications are written to avoid detrimental structural behaviors. Laboratory, 1 unit.

**ENGR 425 Reinforced Concrete Structures (3)**

*Prerequisite:* ENGR 323 (May be taken concurrently). Design of reinforced concrete structural systems. Elements of systems including beams, slabs, columns, connections. Ultimate strength approach to safety and serviceability: bending, shear, and axial loads.

**ENGR 426 Steel Structures (3)**

*Prerequisite:* ENGR 323 (May be taken concurrently). Design of steel structures, members, and connections. Effects of loads causing flexure, shear and axial force, and their combinations on design choices. Steels and sections used in structural design. Use of design specifications.

**ENGR 427 Wood Structures (3)**

*Prerequisite:* ENGR 323 (May be taken concurrently). Design of wood structures. Design procedures and specifications of the wood structural members subjected to tension, compression, flexure, and combined bending with axial forces. Design building codes and seismic provisions of wood structures.

**ENGR 429 Construction Management (3)**

*Prerequisite:* ENGR 235 and ENGR 430 (may be taken concurrently). Construction engineering and management; professional practice and ethics; planning and scheduling, network diagrams, scheduling computations, resource management, computer applications; cost estimating; bidding and contracting.

**ENGR 430 Soil Mechanics (3)**

*Prerequisite:* ENGR 309. Soil as an engineering material with emphasis on identification, physical and mechanical properties. Evaluation of water flow through soil, settlement, soil strength, earth pressure, pile pullout capacity, and basic slope stability. Laboratory-based term project. Classwork, 2 units; laboratory, 1 unit.

**ENGR 431 Foundation Engineering (3)**

*Prerequisite:* ENGR 430. Settlement of structures on deep and shallow foundations. Evaluation of undrained and drained soil strength. Analysis and design of gravity, cantilever and anchored walls. Ultimate capacity of deep and shallow foundations.

**ENGR 432 Finite Element Methods in Structural and Continuum Mechanics (3)**

*Prerequisites:* ENGR 308 and 309. Fundamental concepts of the finite element method for one- and two-dimensional elements. Applications in the areas of structural analysis, plane stress and plane strain, and two-dimensional groundwater flow. Computer implementation of finite element techniques.

**ENGR 433 Soil Mechanics Laboratory (1)**

*Prerequisite:* ENGR 430, or may be taken concurrently. Standard commercial soil testing including basic soil properties, in situ density, compaction, permeability, consolidation, grain size, evaluation, and others. Reduction and interpretation of test results. Plus-minus letter grade only.

**ENGR 434 Principles of Environmental Engineering (3)**

*Prerequisites:* CHEM 115 and ENGR 304 (ENGR 304 may be taken concurrently). Fundamentals of environmental engineering: water quality, water chemistry, water treatment, air quality, and solid waste management.

**ENGR 435 Environmental Engineering Design (3)**

*Prerequisite:* CHEM 115. Design concepts for environmental engineering systems relating to municipal and industrial wastewater treatment, disposal, and reuse.

**ENGR 436 Transportation Engineering (3)**

*Prerequisites:* ENGR 235 and ENGR 430 (may be taken concurrently). Principles, theories, and practice of transportation planning and design.

**ENGR 439 Construction Engineering (3)**

*Prerequisite:* ENGR 309, 430. Construction methods and equipment, excavating, loading, hauling, and finishing; production of construction materials; compressed air and water systems; concrete form design; building construction; construction safety. ENGR440

Ethical Issues in Science and Technology (3) [GE]

*Prerequisites:* upper division standing and ENG 214 or equivalent. Cross listed with BIOL 440. For course description, see BIOL 440. (May not be repeated under alternate prefix.) (Formerly NEXA 440.)

**ENGR 442 Operational Amplifier Systems Design (3)**

*Prerequisite:* ENGR 305 with grade of C or better. Design of op-amp amplifiers, signal converters, conditioners, filters. Negative feedback, practical op-amp limitations. Voltage comparators, Schmitt triggers, nonlinear signal processing. Sinewave oscillators, multivibrators, timers. Design project, PSpice simulation.

**ENGR 445 Analog Integrated Circuit Design (4)**

*Prerequisites:* grades of C or better in ENGR 301 and 353. Integrated circuit technology, transistor characteristics and models. Analysis and design of monolithic op amps. Frequency response, negative feedback, stability, PSpice simulation. Classwork, 3 units; laboratory, 1 unit. Extra fee required.

**ENGR 446 Control Systems Laboratory (1)**

*Prerequisites:* ENGR 447 (may be taken concurrently). Simulation and modeling of control systems using Matlab and Simulink. Control experiments using servomotors and industrial emulators. Control project. Laboratory.

**ENGR 447 Control Systems (3)**

*Prerequisite:* ENGR 305 with grade of C or better. Analysis and design of continuous and discrete control systems. Systems modeling and stability. System compensation using root-locus and frequency domain techniques. Z-transforms, discrete transfer functions, and state-space representation. Control of digital systems using state-space methods.

**ENGR 448 Electrical Power Systems (3)**

*Prerequisite:* ENGR 306 with a grade of C or better. Operating characteristics of transmission lines, transformers, and machines. Symmetrical component theory and sequence network method. Use commercial programs to conduct load flow study, short circuit analysis, and economic dispatch problems. State estimation, unit commitment, and system transient and stability issues.

**ENGR 449 Communication Systems (3)**

*Prerequisite:* grade of C or better in ENGR 305. Review of linear systems. Amplitude (AM), frequency (FM), and phase (PM) modulation systems. Transmitter and receiver design. Frequency and time-domain multiplexing. Digital modulation techniques: line coding, pulse shaping, channel equalization techniques. Error correcting techniques.

**ENGR 451 Digital Signal Processing (4)**

*Prerequisites:* ENGR 305 with a grade of C or better. Properties of discrete-time systems. Convolution. Difference equations. Sampling and reconstruction of analog signals. Z-transforms and inverse z-transforms. Design of FIR and IIR filters. Discrete Fourier series and transform. Fast Fourier transform algorithms. Classwork, 3 units; laboratory, 1 unit.

**ENGR 453 Digital Integrated Circuit Design (4)**

*Prerequisites:* ENGR 301, 353, and 356 with grades of C or better. Integrated circuit technology, transistor characteristics and models. MOS and bipolar logic families, noise margins, speed, power, fanout, interfacing, PSpice simulation. Regenerative circuits and memories. Classwork, 3 units; laboratory, 1 unit. Extra fee required.

**ENGR 455 Power Electronics (4)**

*Prerequisites:* grades of C or better in ENGR 301, 306, and 353. Power device characteristics. Circuit and component design and analysis concepts. Uncontrolled and phase controlled rectifier circuits. DC to DC converters. Switching DC power supply. Pulse width modulation. DC to AC inverter. Utility interface and harmonic issues. Classwork, 3 units; laboratory, 1 unit.

**ENGR 456 Computer Systems (3)**

*Prerequisite:* a grade of C or better in ENGR 356. Computer performance measurements. Instruction set architecture. Program sequencing. Basic processor organization, arithmetic-logic unit, simple and pipelined datapaths. Hardwired and microprogrammed control. Memory system configuration, cache and virtual memory management.

**ENGR 461 Mechanical and Structural Vibrations (3)**

*Prerequisites:* ENGR 201, 309, and MATH 245. Dynamic excitation and response of mechanical and structural systems. Frequency and time domain; energy methods, Rayleigh's principle, modal analysis. Vibration damping, resonance, isolation, absorption parametric excitation, and influence coefficients.

**ENGR 463 Thermal Power Systems (3)**

*Prerequisites:* ENGR 302 and 467. Application of thermodynamics, fluid mechanics, and heat transfer to design of energy systems. Economic and environmental aspects stressed as design criteria. Classwork, 2 units; laboratory, 1 unit.

**ENGR 464 Mechanical Design (3)**

*Prerequisite:* ENGR 364. Application of principles of mechanics, materials science, and stress analysis to design of components and machines. Mechanical behavior of materials. Synthesis and analysis of major machine design project. Classwork, 2 units; laboratory, 1 unit.

**ENGR 465 Principles of HVAC (3)**

*Prerequisites:* ENGR 303, ENGR 304. Air requirements in buildings, heating and cooling load calculation methods and computer software, heating and cooling equipment, flow in pipes and ducts, and clean room technology.

**ENGR 466 Gas Dynamics and Boundary Layer Flow (3)**

*Prerequisite:* ENGR 303 and ENGR 304. Review of the fundamentals of fluid dynamics, formulation and application of compressible fluid flow, shock waves. Concept and formulation of laminar and turbulent boundary layers, external flows, flow around immersed bodies.

**ENGR 467 Heat Transfer (3)**

*Prerequisites:* ENGR 303 and 304. Fundamental principles of heat transfer with applications to design. Conduction, transient and steady state; free and forced convection; radiation. Heat exchangers.

**ENGR 468 Applied Fluid Mechanics and Hydraulics (3)**

*Prerequisite:* ENGR 304. Fluid mechanics: incompressible flow to steady and transient flow problems in piping networks, turbo-machines, and open channels.

**ENGR 469 Alternative and Renewable Energy Systems (3)**

*Prerequisite:* ENGR 205, ENGR 303. Theory and practical applications of renewable energy systems, including solar, hydro, and wind power. Biomass and biofuels. Environmental, social, and economic factors related to energy conversion processes.

**ENGR 476 Computer Communications Networks (3)**

*Prerequisites:* ENGR 356 with a grade of C or better. Technological precedence and alternatives in setting up a computer communication network. OSI, DSL, cable modems, PPP, Ethernet, TCP/IP, wireless LANs, Frame Relay, ATM, and SONET topics. Classwork, 2 units; laboratory, 1 unit.

**ENGR 478 Design with Microprocessors (4)**

*Prerequisite:* ENGR 356 with a grade of C or better. Assembly language programming. System bus. Interfacing with memory and I/O devices. Serial and parallel communications. Timer and counter functions. Polling and interrupt. A-D conversion. Fuzzy logic. Classwork, 3 units; laboratory, 1 unit.

**ENGR 610 Engineering Cost Analysis (3)**

*Prerequisites:* ENGR 103 or CSC 210 and MATH 227. Quantifying alternative for decision making, time-value of money, project investment evaluation, comparison of alternatives, engineering practice applications, and introduction to value engineering.

**ENGR 690 Engineering Seminar (2-3)**

*Prerequisite:* consent of instructor. Topic to be specified in the Class Schedule. May be repeated for a total of 6 units when topics vary.

**ENGR 693 Cooperative Education Program (6-12)**

*Prerequisite:* A U 293 or consent of instructor. Intended for engineering majors. Supervised employment in an academically relevant field of study. Units do not count toward the major. May be repeated for a total of 24 units. CR/NC grading only.

**ENGR 694 Cooperative Education in Engineering (1)**

*Prerequisite:* consent of adviser. Written and oral report of work performed with outside agency. Evaluation of work by engineering adviser and/or faculty committee. CR/NC grading only.

**ENGR 696 Engineering Design Project I (1)**

*Prerequisites:* senior standing with 21 upper division units in engineering; ENGR 302. Selection of design project, methods of research, time management, engineering professional practice and ethics. This course is 3rd in a series of courses (ENGR 300, 301 or 302, 696, and 697GW) that when completed with a C or better will culminate in the satisfaction of the University Written Eng Proficiency/GWAR if taken Fall 2009 or later. ABC/NC grading only.

**ENGR 697 Engineering Design Project II (2)**

*Prerequisite:* ENGR 696. Continue work on design project with maximum independence under supervision of a faculty adviser. Oral and written project reports required. May be repeated in the case of a double major.

**ENGR 697 Engineering Design Project II-GWAR (2)**

*Prerequisite:* ENGR 696. Continue work on design project with maximum independence under supervision of a faculty adviser. Oral and written project reports required. May be repeated in the case of a double major. This is the final course in a series (ENGR 300, 301 or 302, 696, and 697GW) that when completed with a C or better will culminate in the satisfaction of the University Written Eng Proficiency/GWAR if taken Fall 2010 or later. ABC/NC grading only.

**ENGR 698 Engineering Seminar (1-3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated for 9 units when topics vary.

**ENGR 699 Special Study In Engineering (1-3)**

*Prerequisites:* approval of the division and the instructor. Special study in the laboratory, field, or library under the direction of a member of the division. The student must present a detailed written report of the work accomplished. May be repeated.

**Graduate Courses****ENGR 800 Engineering Communications (3)**

*Prerequisite:* graduate status in engineering. Types and modes of communications used by engineers in professional practice. Learning models for effective communications, both oral and written.

**ENGR 801 Engineering Management (3)**

*Prerequisite:* consent of instructor. History and evolution of engineering, ethics and professionalism, business aspects of contracts and specifications, litigation and arbitration, planning and scheduling, quality control, personnel management.

**ENGR 827 Structural Design for Fire Safety (3)**

*Prerequisites:* ENGR 323, ENGR 425 or 426, graduate or senior standing. Standard fire time-temperature curve and its limitations, properties of concrete, steel and fire protection materials at elevated temperature engineering; load capacity of structural components under fire; fire resistance design of steel, composite, concrete and timber structures. Plus-minus letter grade only.

**ENGR 829 Advanced Topics in Structural Engineering (3)**

*Prerequisite:* ENGR 323 and graduate standing. Theory of structures in historic perspective. Advanced structural analysis (matrix methods). Nonlinear theories and post-buckling. Introduction to structural stability. Introduction to nonlinear analysis and performance-based design. Concepts and application of Finite Element Analysis.

**ENGR 830 Finite Element Methods in Structural Continuum Mechanics (3)**

*Prerequisites:* ENGR 308 and 309, or graduate status in engineering. Matrix methods of stress analysis; concepts of the finite element methods; bar elements; two-dimensional elasticity; plate bending; axisymmetrical problems; modeling; solution validation; dynamics using FEM; problems in nonlinear material and geometry.

**ENGR 831 Advanced Concrete Structures (3)**

*Prerequisite:* ENGR 425 or graduate status in engineering. Advanced design of reinforced concrete structural systems. Design of reinforced concrete frames considering seismic loads.



**ENGR 832 Advanced Topics in Seismic Design (3)**

*Prerequisites:* ENGR 425 and 426 and graduate status in engineering. Application of computer software for structural design. General concepts of energy dissipation systems. Current methods of structural control. Implementation issues, case studies, and seismic code provisions.

**ENGR 833 Principles of Earthquake Engineering (3)**

*Prerequisites:* ENGR 425 and 426, or consent of instructor. Earthquake ground motions; development of response spectra and effects of local site conditions on spectra. Dynamic response of single and multi-degree of freedom systems to earthquakes. Seismic damage to buildings. Earthquake resistive design.

**ENGR 835 Advanced Steel Structures (3)**

*Prerequisite:* ENGR 426 or graduate status in engineering. Advanced design of steel structures, plate girders, and connections. Steel structural design considering effects of torsion and combined bending and axial load. Design of steel frames considering seismic loads. Steel design emphasizing Load and Resistance Factor Design.

**ENGR 836 Structural Design for Earthquakes (3)**

*Prerequisites:* ENGR 425, 426 or graduate status in engineering. Earthquake resisting systems in buildings; seismic design criteria for structures; seismic upgrade and retrofit; computer applications in structural modeling and analysis for seismic forces.

**ENGR 837 Geotechnical Earthquake Engineering (3)**

*Prerequisite:* ENGR 430, 461 (ENGR 461 may be taken concurrently). Vibration analysis of discrete and continuous systems. Earthquake engineering. Dynamic soil properties. Deterministic and probabilistic ground response analysis. Evaluation and mitigation of liquefaction hazards.

**ENGR 844 Embedded Systems (3)**

*Prerequisite:* Graduate standing or consent of instructor. Trends and challenges of embedded systems. Introduction of design and use of single-purpose processors (hardware) and general-purpose processors (software). Discussion of memories and buses, advanced computation models, control systems, chip technologies, and modern design tools.

**ENGR 848 Digital VLSI Design (3)**

*Prerequisite:* ENGR 353. Fundamental metrics for quantitative evaluation of design. Basics of CMOS transistors and technology. Silicon technology scaling different logic styles. Design of combinational and sequential circuits in CMOS. Interconnects. Layout techniques. Designing arithmetic building blocks. Memory technology and design.

**ENGR 849 Advanced Analog IC Design (3)**

*Prerequisites:* ENGR 353, 442, and 445; graduate standing or consent of instructor. Fundamentals of analog integrated circuits design along with the nanometer CMOS technology; introduction of the mixed-signal IC design theories and practices; advanced analog IC blocks; practice of the analog design using state-of-art CAD tools. (Plus-minus letter grade only.)

**ENGR 851 Advanced Microprocessor Architectures (3)**

*Prerequisite:* ENGR 456. Microprocessor architecture and register organization. Multiprogramming, process scheduling and synchronization, and multitasking. Memory management and privileged machine states. Examples of 32-bit machines. Reduced architectures: RISC approach, MIPS.

**ENGR 852 Advanced Digital Design (3)**

*Prerequisite:* ENGR 356 or equivalent. Design of fundamental and pulse mode circuits, design with programmable logic devices, computer simulation of digital circuits, reliable digital system design techniques, testing and design for testability.

**ENGR 853 Advanced Topics in Computer Communication and Networks (3)**

*Prerequisite:* ENGR 476 with a grade of C or better. Computer communication networks for broadband services; current networking and communication technologies; new technologies and their utilization in emerging broadband multimedia applications.

**ENGR 854 Wireless Data Communication Standards (3)**

*Prerequisite:* background in communication systems or consent of instructor. Characteristics of wireless channels. Wireless local area networks, Bluetooth, high-rate and low-rate wireless personal area networks, and wireless broadband access. Medium-access control layers, security and quality of service.

**ENGR 856 Nanoscale Circuits and Systems (3)**

*Prerequisites:* ENGR 378, 453, and 890 or equivalent or consent of instructor. Advanced topics in VLSI device, circuit and system design including high-performance and low-power design issues, challenges of technology scaling, technologies and solutions at different levels of abstraction. Requires class project.

**ENGR 890 Graduate Seminar (3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENGR 895 Applied Research Project (3)**

*Prerequisites:* classified graduate status with 12 units of graduate work and passing score on GET, SCI 614, CHS 514, or BUS 514. Comprehensive research-based engineering study detailing the objectives, methods, and findings of the research. Oral presentation is required. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Division of Graduate Studies before registration. CR/NC grading only.

**ENGR 897 Research (3)**

*Prerequisites:* ENGR 800 and 801 and completion of nine units of graduate work. Independent investigation or significant design project under supervision of an Engineering faculty member. Intended as the research investigation leading to the master's thesis. May be repeated for a total of 6 units.

**ENGR 898 Master's Thesis (3)**

*Prerequisite:* advancement to candidacy for the Master of Science in Engineering. Graduate Approved Program and Proposal for Culminating Experience Requirement Forms must be approved by the Graduate Division prior to registration. CR/NC grading only.

**ENGR 899 Special Study (1-3)**

*Prerequisites:* approval of department and consent of instructor. Special study of a particular problem or subject under the direction of a member of the department. Open only to graduate students in engineering. Students must present a detailed written report of the work accomplished to the department faculty. May be repeated for a total of 6 units.

**ENGLISH LANGUAGE AND LITERATURE**

A student who has taken and passed (with a grade of C or above) any English course not described as repeatable for credit in this Bulletin, may repeat the course only with consent of the instructor.

**Undergraduate Courses****ENG 104 First Year Composition Stretch I (3)**

*Prerequisite:* completed Directed Self-Placement. Critical thinking skills in reading and writing. Emphasis on academic argumentation, working with and evaluating sources, conducting research and using rhetorical approaches. (ABC/NC grading, CR/NC allowed.)

**ENG 105 First Year Composition Stretch II (3)**

*Prerequisite:* completed ENG 104. 2nd semester of year-long course. Continue to develop critical thinking skills in reading and writing. Emphasis on academic argumentation, working with and evaluating sources, conducting research and using rhetorical approaches. (ABC/NC grading, CR/NC allowed.)

**ENG 106 First-Year Composition III (4)**

*Prerequisite:* EPT score of 142-150. A semester-long integrated reading-writing course that meets ENG 114 learning outcomes, offering opportunities to write approximately 8,000 words. Successful completion with grade of C- or better meets the university's first-year composition requirement. Students who receive NC in ENG 106 must take and successfully complete ENG 114 to meet the university's first-year composition requirement. Students who do not successfully complete 106 or 114 within one year from the time of admission will be subject to disenrollment from the university. Class work, 3 units; laboratory, 1 unit.

**ENG 111 Reading Comprehension Laboratory (1-3)**

Individualized assistance and practice in college-level reading skills (comprehension, library research, vocabulary, and textbook reading). May be repeated for a total of 3 units. CR/NC grading only.

**ENG 112 Reading and Writing Techniques (1-2)**

*Prerequisite:* consent of instructor. Reading and/or writing skills: reading and study skills, comprehension, vocabulary, spelling, development of basic writing and composition abilities. May be repeated for a total of 6 units. CR/NC grading only.

**ENG 114 First Year Composition (3)**

*Prerequisites:* see *Written English Requirements* in this Bulletin for 114 eligibility. Critical thinking skills in reading and writing. Emphasis on academic argumentation, working with and evaluating sources, conducting research and using a variety of rhetorical approaches. (ABC/NC grading, CR/NC allowed.)

**PENG 201 Accelerated Academic English 1-Multilingual (4)**

*Prerequisites:* for multilingual freshman students who score 141 or below on EPT. English skills and proficiency for university course work: reading comprehension, critical reading, critical thinking, composing skills for academic writing, grammar editing. Classwork, 3 units; laboratory, 1 unit. ABC/NC grading, CR/NC allowed.

**ENG 202 Accelerated Academic English II--Multilingual (4)**

*Prerequisite:* ENG 201. English reading, writing, and critical thinking. Classwork, 3 units; laboratory, 1 unit. ABC/NC grading, CR/NC allowed.

**ENG 204 Effective Literacy Skills for College--Multilingual (3)**

*Prerequisite:* must take ESLPT prior to enrolling. Development of university-level reading, writing, and information literacy skills. ABC/NC grading, CR/NC allowed. May be repeated for a total of six units.

**ENG 208 Grammar for Writing--Multilingual (3)**

*Prerequisite:* must take ESLPT prior to enrolling. Grammatical accuracy in written work. Structures typically reviewed and practiced include articles, verb forms and tenses, and sentence structure. ABC/NC grading; CR/NC allowed. May be repeated for a total of 6 units.

**ENG 209 First Year Composition--Multilingual (3)**

*Prerequisite:* qualifying score on ESLPT or recommendation from instructor of a previously-completed CMS course. Practice in writing and critical reading; an introduction to expository/argumentative writing and the composing process. Fulfills first year written English requirement. ABC/NC grading, CR/NC allowed.

**ENG 210 Oral Communication - Multilingual (3) [GE]**

Development of skills in listening, speech delivery, and preparation and presentation of informative and persuasive speeches. ABC/NC grading, CR/NC allowed.

**ENG 212 Advanced Grammar for Writing--Multilingual (3)**

*Prerequisite:* qualifying score on ESLPT or recommendation from an instructor of a previously-completed CMS course. Grammatical accuracy and variety at the sentence and discourse levels. Readings, grammatical analysis, and compositions with emphasis on editing. May be repeated for a total of 6 units. ABC/NC grading, CR/NC allowed.

**ENG 214 Second Year Written Composition - English (3) [GE]**

*Prerequisite:* grade of CR or C- or better in First-Year Composition or equivalent. Expository-argumentative composition and critical reading skills through the study of literature; special attention to logic, style, and rhetoric. ABC/NC grading, CR/NC allowed.

**ENG 230 Literature and Film (3) [GE]**

*Prerequisite:* ENG 114 or equivalent or consent of instructor. The intersections of literature and film and textual forms. Focus on literary adaptation, narrative kinds, and close reading of all texts.

**ENG 250 The Study of Literature (3)**

*Prerequisite:* first-year composition or consent of instructor. Literary standards of evaluation; methods of analysis; selected readings from the novel, short story, drama, essay, and poem. [Formerly ENG 150]

**ENG 251 The Short Poem in English (3)**

*Prerequisite:* first-year composition or consent of instructor. Major English and American poems ranging from medieval songs to the work of such poets as Lowell and Auden. [Formerly ENG 151]

**ENG 252 The Novel in English (3)**

*Prerequisite:* first-year composition or consent of instructor. Major English and American novelists and variations in the genre between Defoe and the present. [Formerly ENG 152]

**ENG 253 Drama in English (3)**

*Prerequisite:* first-year composition or consent of instructor. The nature of dramatic literature in the English language. The changing conditions of form and subject matter in the development of dramatic literature from earliest examples to the modern. [Formerly ENG 153]

**ENG 254 Masterworks of Literature in English (3) [GE]**

*Prerequisite:* first-year composition or consent of instructor. Critical appreciation of literary masterworks in English by representative authors selected from the vast array of literature in the English language. [Formerly ENG 154]

**ENG 255 Contemporary Literature (3) [GE]**

*Prerequisite:* first-year composition or consent of instructor. Selected poetry, fiction, and drama of the late 19th century to the present. [Formerly ENG 155]

**ENG 258 American Literature (3) [GE]**

*Prerequisite:* first-year composition or consent of instructor. Selected masterpieces of American literature. [Formerly ENG 158]

**ENG 259 Introduction to Shakespeare (3) [GE]**

*Prerequisite:* first-year composition or consent of instructor. For potential English majors unacquainted with Shakespeare's work, and non-majors not yet conscious of themselves as heirs of Shakespeare's language and culture, and beneficiaries of his dramatic gifts. [Formerly ENG 159]

**ENG 260 Introduction to Science Fiction (3) [GE]**

*Prerequisite:* ENG 114 or equivalent or consent of instructor. Surveys the development of science fiction narratives in English through exploring four classic conventions of the genre: encounters with aliens, the possibilities of machine intelligence, utopias/dystopias, and post-apocalyptic scenarios.

**ENG 261 Narrative Analysis (3) [GE]**

*Prerequisite:* first-year composition or consent of instructor. Introduction to the analysis of narrative structures of short stories, novels, essays, tales, and films. May be repeated as topics vary. [Formerly ENG 160]

**ENG 310 Second Year Composition--Multilingual (3) [GE]**

*Prerequisite:* qualifying score on ESLPT and grade of CR or C- or above in ENG 114 or equivalent or grade of CR or C- or above in ENG 209. Expository argumentative composition and critical reading of nonfiction: supporting arguments with outside sources, developing revising strategies and research skills. ABC/NC grading, CR/NC allowed. May be repeated for a total of 6 units.

**ENG 380 British and American Travellers to Greece (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with MGS 380. For course description, see MGS 380. (May not be repeated under alternate prefix.)

**ENG 394 Fieldwork Portfolio (1)**

*Prerequisite:* ENG 114 or equivalent. Must be taken concurrently with ENG 695. Portfolio writing and community fieldwork. Students participating in community agencies develop a portrait-learning portfolio based upon fieldwork. May be repeated for a total of 3 units. [CSL may be available; consult index for page reference.]

**ENG 395 Tutoring Portfolio (1)**

*Prerequisite:* ENG 114 or equivalent. Must be taken concurrently with ENG 695. Students tutoring on a one-to-one basis develop a portfolio based upon fieldwork experience. May be repeated for a total of 3 units. [CSL may be available; consult index for page reference.]

**ENG 397 The Journal (1)**

*Prerequisite:* upper division standing or consent of instructor. Practice in using the journal to define, analyze, and comment upon combinations of work and personal experience. Enrollment by interview only. May be repeated. [CSL may be available; consult index for page reference.]

**ENG 398 Greek American Literature (3)**

*Prerequisite:* ENG 114 or equivalent. Cross listed with MGS 397. For course description, see MGS 397. (May not be repeated under alternate prefix.)

**ENG 410 Elements of Writing-Multilingual (3)**

*Prerequisites:* qualifying score on ESLPT and completion of ENG 214 or equivalent or ENG 310. Review and practice of critical reading, writing, and thinking skills necessary for academic and professional writing including source-based essays, library and internet research, and the interpretation of literature. ABC/NC grading, CR/NC allowed.

**ENG 411 Literature and Composition - Multilingual (3) [GE]**

*Prerequisites:* qualifying score on the SFSU ESLPT and completion of ENG 214 or equivalent or ENG 310. Advanced composition based on critical reading of literature. ABC/NC grading, CR/NC allowed.

**ENG 412 Grammar/editing Workshop - Multilingual (1)**

*Prerequisites:* qualifying score on SFSU ESLPT, recommendation from CMS coordinator or instructor of a previously completed CMS course. Must be taken concurrently with ENG 310 or ENG 410 or ENG 411. Revision, editing, and proofreading strategies for upper-division academic writing. Emphasis on error identification and individualized editing plans. CR/NC grading. May be repeated for a total of 2 units.

**ENG 414 Elements of Writing (3)**

*Prerequisite:* junior standing. Undergraduate students must have taken JEPET before enrolling in this course. Extensive practice in expository writing; satisfies upper division written English, not General Education or major field requirements. ABC/NC grading (CR/NC okay).

**ENG 417 Academic Literacy and the Urban Adolescent (3)**

*Prerequisite:* ENG 214 or equivalent. Service Learning, focusing on the acquisition of academic literacy by urban teens; requires 25 hours volunteering in middle or high school classrooms. Partly satisfies Early Field Experience requirement for Single Subject Credential Program. [CSL is available; consult index for page reference.]

**ENG 418 Grammar for Writers (3)**

*Prerequisite:* first year composition or equivalent. Focus on students' proofreading, editing, and revising their writing for academic courses. Analyze samples of writing in their disciplines to define and develop effective sentences and paragraphs. Open to all majors.

**ENG 419 Advanced Composition for Teachers (3)**

*Prerequisite:* ENG 214 or equivalent. The composing process: purpose, audience, types of discourse, rhetorical strategies, syntactic structures, response groups. Partly satisfies Early Field Experience requirement for Single Subject Credential. Service Learning requires 20 hours tutoring in secondary Language Arts classes. [CSL is available; consult index for page reference.]

**ENG 420 Introduction to the Study of Language (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Linguistic investigation of sounds, words, sentences, conversations. Relationships between language, culture, dialects, mind, animal communication examined. Recommended as first language structure course.

**ENG 421 The Structure of English (3)**

*Prerequisite:* upper division standing or ENG 420. Priority to English majors, minors, and MA TESOL and Linguistics students. Generative-transformational theory of grammar as compared to traditional school grammars and structural grammars. Background for teaching English language and literature to native or non-native speakers.

**ENG 422 History of the English Language (3)**

*Prerequisite:* upper division standing or ENG 420. The background, sources, and development of English; examinations of writing of historical periods of the language.

**ENG 424 Phonology and Morphology (3)**

*Prerequisite:* upper division standing or ENG 420. Priority to ENG majors, minors, MA Linguistic & TESOL students. Theories and techniques of phonological and morphological analysis using data from English and other languages.

**ENG 425 Language in Context (3)**

*Prerequisite:* upper division standing or ENG 420. Priority to English majors, minors, and MA Linguistics and TESOL students. Introduction to language variation relating to age, ethnicity, gender, region, class, occupation; language and culture; multilingualism. [CSL may be available; consult index for page reference.]

**ENG 426 Second Language Acquisition (3)**

*Prerequisite:* upper division standing; concurrent enrollment in a foreign language required. Survey of research and issues in second language acquisition. Required for entrance into M.A. TESOL program. Recommended for ESL/EFL and foreign language teachers and credential candidates. ENG 429 Stylistics (3)

*Prerequisite:* ENG 114 or equivalent or consent of instructor. Analysis of syntax, diction, and other devices that contribute to what we call literary "style" in a variety of 19th and 20th century works of fiction and non-fiction.

**ENG 430 Studies in Linguistics and the History of Language (3)**

*Topic to be specified in Class Schedule.* May be repeated when topics vary.

**ENG 432 Seminar in Immigrant Literacies and Community-Based Projects (3)**

*Prerequisites:* pass JEPET or equivalent, upper-division standing, ENG 425 and ENG 426, or consent of instructor. Exploration of language and literacies in everyday contexts in which immigrants participate (e.g. health, work). Paired with ENG 832. Students who complete ENG 432 may not take ENG 832 for credit.

**ENG 451 Jewish Literature of the Americas (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with JS/CWL 451. For course description, see JS 451. (May not be repeated under alternate prefix.)

**ENG 460 Literature in English I: Beginnings to 17th Century (3)**

*Prerequisites:* ENG 214 or equivalent, or consent of instructor. Introduction to the history and aesthetics of influential Old English, Middle English, sixteenth- and seventeenth-century texts written in England and America.

**ENG 461 Literature in English II: 18th and 19th Centuries (3)**

*Prerequisites:* ENG 214 or equivalent, or consent of instructor. Introduction to the history and aesthetics of influential eighteenth- and nineteenth-century texts written in England and America.

**ENG 462 Literature in English III: The Twentieth Century (3)**

*Prerequisites:* ENG 214 or equivalent, or consent of instructor. Survey of key texts, debates, and literary historical landmarks in the study of twentieth-century literature in English.

**ENG 475 Fundamentals of Literary Analysis (3)**

*Prerequisite:* ENG 214 or equivalent. Training in close reading and the conventions of literary analysis. Investigates multiple genres and teaches students to interpret works through literary elements. Particularly suitable for prospective teachers and Liberal Studies majors.

**ENG 480 Junior Seminar - GVAR (3)**

*Prerequisite:* ENG 214 or equivalent with grade of C or better. English major (who must complete ENG 480 before the end of the junior year) and minor. Practical criticism; techniques in the art of reading literature and writing about it in a series of short papers. Majors must complete this course before the end of the junior year. ABC/NC grading only.

**ENG 501 Age of Chaucer (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Fourteenth century English literature. Major writers of the period.

**ENG 503 Studies in Medieval Literature (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. *Topic to be specified in Class Schedule.* May be repeated when topics vary.

**ENG 508 Studies in Seventeenth Century English Literature (3)**

*ENG 214 or equivalent or consent of instructor.* *Topic to be specified in Class Schedule.* May be repeated when topics vary.

**ENG 510 The Age of Wit (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Swift, Pope, Addison, and the circle of London wits and satirists of the early 18th century; the radical change in literary forms and ideas and their relationship to changes in society.

**ENG 512 Studies in Eighteenth Century English Literature (3-4)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. *Topic to be specified in Class Schedule.* May be repeated when topics vary.

**ENG 514 Age of the Romantics (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Poetry and prose of Blake, Coleridge, Byron, Wordsworth, Shelley, and Keats.

**ENG 521 Studies in 20th Century English Literature (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. *Topic to be specified in Class Schedule.* May be repeated when topics vary.

**ENG 524 Contemporary American Short Story (3)**

*Prerequisites:* ENG 214 or equivalent or consent of instructor. Survey of American short story writers since 1945, with selections by such authors as Shirley Jackson, Grace Paley, Flannery O'Connor, Saul Bellow, James Baldwin, John Cheever, Ann Beattie, Tobias Wolff, Raymond Carver, Sandra Cisneros, Sherman Alexi, et al.

**ENG 525 Studies in American Literature (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. *Topic to be specified in Class Schedule.* May be repeated when topics vary.

**ENG 526 Age of the American Renaissance: 1830-1860 (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Achievement of a national literature in the works of such writers as Ralph Waldo Emerson, Henry David Thoreau, Walt Whitman, Nathaniel Hawthorne, Herman Melville, and Frederick Douglass, with reading of earlier authors.

**ENG 527 American Literature: 1860-1914 (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Major American writing from romanticism to realism and naturalism: Walt Whitman, Emily Dickinson, Mark Twain, Henry James, Stephen Crane, Kate Chopin, Henry Adams, Edwin Arlington Robinson, Edith Wharton, and Theodore Dreiser.

**ENG 528 American Literature: 1914-1960 (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Stories, drama, and criticism by such authors as Ezra Pound, T. S. Eliot, William Faulkner, Ernest Hemingway, F. Scott Fitzgerald, Ralph Ellison, Richard Wright, Wallace Stevens, Robert Lowell, and Sylvia Plath.

**ENG 533 Holocaust and Literature (3) [GE]**

*Prerequisite:* ENG 214. Cross listed with JS/CWL 437. For course description, see JS 437. (May not be repeated under an alternate prefix.)

**ENG 535 Literature and Ecology (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. An appraisal of literary works in light of their representation of nature and their ecological wisdom. Examples of post-romantic American literature of nature. The theory and practice of ecocriticism.

**ENG 546 Twentieth Century American Jewish Women Writers (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Exploration through novels, short fiction, and memoir the connections American women forge and the tensions they experience via encounters with self, family, Judaism, American society, and world history. (Cross listed with JS/WGS 546. May not be repeated under alternate prefix.)

**ENG 550 The Rise of the Novel (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Emergence of the English novel in the work of such writers as Defoe, Richardson, Fielding, Sterne, Smollett; the relationship of the new genre to changes in social and philosophical experience.

**ENG 552 Modern British Novel (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Developments in the novel from George Meredith to the present: Conrad, Hardy, Forster, Lawrence, Joyce, Woolf, Waugh, and Amis.

**ENG 553 Classic American Novel (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Major novelists from Brown and Cooper through Twain, Howells, James, Wharton, Stephen Crane, and Dreiser—including Chopin, Davis, local colorists, Johnson, and Douglas.

**ENG 554 Modern American Novel (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Major novelists from Dreiser through Fitzgerald, Hemingway, and Faulkner to the present.

**ENG 555 The Short Story (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Short story as a distinctive literary phenomenon. Historical consideration; critical analysis of representative modern stories.

**ENG 558 Early Twentieth Century Poetry in the United States (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Development of modernism during the first half of the 20th century; the tension between the poets' experimentalism and their relation to tradition.

**ENG 559 Middle and Late Twentieth Century Poetry in the United States (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Development of poetry during the second half of the 20th century; poets' reactions against and development of modernist themes and techniques.

**ENG 565 The Short Story: Global Literature in English (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. The short story as a distinctive literary phenomenon of global literature in English, examined in relation to cultural perspectives and literary-historical traditions. ENG 571 Shakespeare's Rivals (3)

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Close study of the drama of Shakespeare's contemporaries and immediate successors. Class will combine modes of literary analysis with theatrically-informed approaches.

**ENG 573 American Drama (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. American drama from the beginnings to the present time.

**ENG 580 Individual Authors (3-5)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in the Class Schedule. May be repeated for credit when topics vary.

**ENG 583 Shakespeare: Representative Plays (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Shakespeare and his age; his development as a dramatist and his literary, intellectual, and social milieu. Reading of representative comedies, histories, and tragedies as well as some non-dramatic poetry.

**ENG 584 Shakespeare-Selected Plays (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Study of a few plays in relation to the textual problems, dramatic technique, and problems of interpretation. Analysis of language, imagery, and structure.

**ENG 589 Milton (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. In-depth study of Milton's prose and poetry; examination of technique, language, imagery, and interpretation.

**ENG 600 Theory of Literature (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Analysis of literature as symbolic action; the recurring motives and concepts which figure in formal appeals; the relationship between literature and rhetoric; the tactics and grounds of persuasion in literature.

**ENG 601 Literature and Psychology (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Selected fiction and drama which reflect the artist's perception of human motivation and behavior. Application of theories of personality to the writer's art.

**ENG 602 Literature and Society (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Selected novels and drama which primarily reflect the social scene. Cultural changes as they affect the writer, his delineation of character and his perspective on society.

**ENG 607 The Comic View in Literature (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 608 The Tragic View in Literature (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 611 Modern Criticism (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Examination of critical approaches including the formalist and the psychoanalytic. Application of one or more critical methods to works of imaginative literature.

**ENG 612 Studies in the Theory and Criticism of Literature (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 613 Feminist Literary Criticism (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. For course description, see WGS 544.

**ENG 614 Women in Literature: Authors and Characters (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**ENG 615 Imagery, Metaphor, and Symbol (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Relationship between symbolic process and organic form in literature. Symbolism as meta-language. Controlled patterning, tonal modulation, shadow structure, and mythic resonance.

**ENG 630 Selected Studies (3-5)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 631 Post-Colonial Literature in English (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Contemporary literature in English by writers from former Third World colonies.

**ENG 632 The Literature of Exile and Migration (3)**

*Prerequisites:* ENG 214 or equivalent or consent of instructor. Investigation of literary texts that narrate experience of exile, migration, and immigration, and consideration of theoretical contexts about diaspora, exile, and transnational movement.

**ENG 633 Gay Love in Literature (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Themes of gay love in fiction, poetry, and biography, beginning with Ancient Greece and extending to the present. (Cross listed with SXS 633. May not be repeated under alternate prefix.)

**ENG 636 Greek and Roman Myth and Modern Literature (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Contemporary writers of fiction, poetry, and drama who use subjects and themes from classical Greek and Roman mythology.

**ENG 637 Experimental Novel: 1950-1980 (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Survey of experimental novels from North and South America merging between 1950-1980, and changing how we view extended narratives. (Cross listed with ETHS 637. May not be repeated under an alternate prefix.)

**ENG 653 TESOL: Pedagogical Grammar (3)**

*Prerequisite:* ENG 421 and upper division status. Priority to MA Linguistics and TESOL student, English major and minor. English grammar for prospective or practicing teachers of English to speakers of other languages.

**ENG 655 Literature and the Adolescent Reader (3)**

*Prerequisite:* ENG 114 or equivalent. Analysis and evaluation of literature about and for adolescents. Teaching approach based on reader response theory. Required for students completing the Single Subject Waiver in English.

**ENG 657 Grammar and Rhetoric of the Sentence (3)**

*Prerequisite:* successful completion of the JEPET/414 requirement or graduate status in English. Study of writing processes; sources of sentence-level writing problems. May be repeated once; units completed are granted only once.

**ENG 658 South African Literature (3)**

*Prerequisites:* Eng 214 or equivalent or consent of instructor. Investigation of the rich traditions of literature in English from South Africa since 1948. Multiple genres with various historical, theoretical and aesthetic contexts.

**ENG 670 Graduate Writing for TESOL and Linguistics (3)**

*Prerequisites:* graduate status, or application in progress, in English (TESOL or Linguistics); qualifying score on the ESL Placement Test (ESLPT) or consent of instructor. Development of writing skills for graduate work in TESOL and linguistics, focusing on the kinds of writing needed in these disciplines. May not be used for master's degree GAP requirements.

**ENG 688 Assessment in English Language Arts (1)**

*Prerequisites:* senior standing and interview with English Single Subject Credential adviser. Creation of an English Education e-Portfolio to demonstrate mastery of subject matter competency in English.

**ENG 690 Senior Seminar (3-4)**

*Prerequisite:* ENG 480 or consent of instructor; English major and minor; priority enrollment given to English literature and English education majors in their senior year. Topic to be specified in Class Schedule. Intensive study of a literary topic culminating in a research paper. May be repeated when topics vary.

**ENG 695 Community Work Experience (3)**

*Prerequisite:* consent of instructor. Journal writing with extensive fieldwork in a San Francisco Bay Area agency dealing with human and urban problems. May be repeated. [CSL may be available; consult index for page reference.]

**ENG 696 Student Experience in Schools (3)**

*Prerequisite:* consent of instructor. Students combine journal writing with extensive fieldwork in Bay Area primary and secondary schools, as classroom aids, tutors, program developers, etc. May be repeated three times for credit. [CSL may be available; consult index for page reference.]

**ENG 698 Work-Study in Language and Literature (1-3)**

Supervised community, university, or departmental service which relates to the English major or individual English courses, includes tutoring and teaching, evaluation of curricula, service on departmental committees. May be repeated.

**ENG 699 Independent Study (1-3)**

Individual supervision of intensive, independent work, largely of a research nature, culminating in a paper. Completion of appropriate graduate introductory course and/or permission of the graduate major adviser is prerequisite to enrollment in other graduate courses in English.

**Graduate Courses**

Completion of appropriate graduate introductory course and/or permission of the graduate major adviser is prerequisite to enrollment in other graduate courses in English.

**ENG 700 Introduction to Composition Theory (3)**

*Prerequisite:* admission to MA Composition Program or to Composition or Post-Secondary Reading Certificate Program. Issues of composition theory, research, and classroom practice.

**ENG 701 Theoretical Backgrounds in Community College and College Reading Instruction (3)**

Review of research on the physiological, psychological, and linguistic processes involved in developing literacy skills on the community college and college levels; examination of the relationships between reading and writing competencies, and reading and reasoning strategies. (See index for repeat policy.)

**ENG 704 Pedagogical Grammar for Composition (3)**

*Prerequisite:* admission to MA Composition Program or to Composition or Post-Secondary Reading Certificate Program. Theory and practice of responding to linguistic, stylistic, and rhetorical issues in student writing.

**ENG 705 Pedagogy in Composition II (3)**

*Prerequisite:* graduate standing or consent of instructor. Theoretical and practical tools to design composition courses: designing syllabi, units, and lesson plans; conducting student/teacher conferences; facilitating peer response groups; assessment.

**ENG 706 Seminar in Sociolinguistics of Composition (3)**

The sociolinguistics of written communication: differences between oral and written speech; effects of differences on learning writing; functions of writing in context; writer/reader interactions; nature and function of discourse communities. (See index for repeat policy.)

**ENG 707 Current Issues in Composition (3)**

Composition for teachers, high school or college. Theory, research, and innovative practices in teaching writing. Invention, shaping, crafting, revising, evaluating, skills building, sequencing assignments.

**ENG 708 Teaching Writing in a Digital Age (3)**

*Prerequisite:* admission to MA Composition Program or to Composition or Post-Secondary Reading Certificate Program, or consent of instructor. Introduction to the uses of digital technology for teaching and learning in college composition courses for graduate students in the Composition MA and certificate programs. Focus is on the impact of emerging technologies on both writing and instruction.

**ENG 709 Seminar in Teaching Integrated Reading and Writing (3)**

*Prerequisite:* admission to MA Composition Program or to Composition or Post-Secondary Reading Certificate Program. Exploration of the integration of reading and writing from both a theoretical and pedagogical perspective.

**ENG 710 Course Design in Composition and Post-Secondary Reading (3)**

*Prerequisite:* admission to MA Composition Program or to Composition or Post-Secondary Reading Certificate Program; ENG 704 or 709 with grade of B or better. Theory and practice of designing post-secondary reading and composition courses.

**ENG 711 Proseminar: Selected Genres and Major Authors (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 712 Proseminar: Survey Studies in English and American Literature (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 713 Seminar in Curriculum and Instruction in English I (3)**

*Prerequisite:* completion of subject matter certification in English or consent of instructor. Theory, curriculum design, instruction and assessment methods for teaching English language, literature, and oral and written performance, grades 6-12. (Formerly ENG 650.)

**ENG 714 Curriculum and Instruction II: English (3)**

*Prerequisite:* completion of ENG 713 with grade of B or better. Must be taken concurrently with S ED 660/S ED 760, Student Teaching. Applied theory, curriculum design, instruction, and assessment methods for teaching English language, literature, oral and written performance; grades 6-12.

**ENG 715 Pedagogy and Practice of Postsecondary Reading (3)**

*Prerequisite:* graduate standing or consent of instructor. Theory-into-practice course in which students develop lesson plans for teaching basic literacy skills. Requires 2 hours of tutoring per week in the English Tutoring Center of IRW students.

**ENG 717 Projects in the Teaching of Literature (3)**

Literary theory and its practical application in the college classroom. Practice in applying various critical approaches to literary texts and in designing plans for teaching the various genres. (See index for repeat policy.)

**ENG 718 Supervision of Teaching Experience (3)**

*Prerequisite:* teaching assignment in college level composition course. Supervision and training in curriculum, teaching techniques, grading procedures, etc. May be repeated.

**ENG 719 Seminar: Contemporary Semantic Theory (3)**

*Prerequisites:* ENG 421 and graduate status or consent of instructor. Introduces tools used to investigate semantic structure (the interpretation of linguistic expressions); develops logical representations for English sentences; investigates entailments and presuppositions at word level (lexical semantics) and discourse level (pragmatics).

**ENG 723 Seminar in the Structure of English (3)**

*Prerequisite:* ENG 421 or consent of instructor. Advanced study in the semantic and discourse-pragmatic structure of English from the perspective of cognitive linguistics. Research projects required.

**ENG 724 Special Topics in Teaching English to Speakers of Other Languages (3)**

*Prerequisite:* ENG 730 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 725 Special Topics in Linguistics (3)**

*Prerequisites:* ENG 421 and 424 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 726 Practicum in Teaching English to Speakers of Other Languages (3)**

*Prerequisite:* ENG 730 (may be taken concurrently). Through assignment as an apprentice and tutor, TESOL students gain experience with methods, materials, and procedures for teaching non-native speakers of English.

**ENG 727 Linguistic Field Methods (3)**

*Prerequisites:* ENG 421, 424, and 425; priority given to MA Linguistic and MA TESOL student. Introduction to basic documentary linguistics and linguistic fieldwork through the elicitation and analysis of data from an unfamiliar language; discussion of research ethics and project logistics.

**ENG 728 Topics in Sociolinguistics (3)**

*Prerequisites:* ENG 421, 424, and 425; priority to MA Linguistic/TESOL students. Current topics in sociolinguistics exploring relevant and influential literature; examine methodological and analytic skills necessary to conduct research. May be repeated when topics vary.

**ENG 729 Seminar in Psycholinguistics (3)**

*Prerequisite:* ENG 730 or consent of instructor. First language studies and issues in second language acquisition: theory, methodology, educational implications, age differences, affective and social factors, error, contrastive, and discourse analysis.

**ENG 730 Introduction to Graduate Study of TESOL (3)**

*Prerequisites:* completion of Level One Writing Proficiency requirement; ENG 425 and 426 or equivalents. Restricted to MA TESOL student. Contemporary theories, approaches, theories, and practical procedures in teaching English as a second or foreign language. Principles and current practices in curriculum development, lesson design, skill development, classroom management, and assessment. Extra fee required.

**ENG 731 Seminar: TESOL Listening and Speaking Skills (3)**

*Prerequisites:* ENG 421, 424, and 730. Theories, research, objectives, problems, and techniques in the teaching of English to speakers of other languages; listening and speaking skills; systematic study of materials and methods of instruction; preparation of teaching materials.

**ENG 732 Seminar: TESOL Reading and Writing Skills (3)**

*Prerequisites:* ENG 730. The teaching of reading and writing skills to adult non-native speakers of English. Theory and research in ESL/EFL reading and composition, curriculum and lesson planning, teaching techniques and activities, materials selection and development, responding to student work, and assessment.

**ENG 733 Seminar: Student Teaching for TESOL (3)**

*Prerequisites:* ENG 731 and 732. Teaching experience with a faculty supervisor who meets with the student teachers both individually and in groups, observes them, and reads and responds to four written papers. CR/NC grading only. [CSL may be available; consult index for page reference.]

**ENG 735 Community Based Curriculum Development (3)**

*Prerequisite:* ESL or literacy teaching experience. On-line course aimed at adult and family educators who teach English language and literacy to non-native speakers. Participants develop materials for classrooms where learners master language while reflecting on their lives.

**ENG 736 Seminar in Teaching ESL in the Community (3)**

*Prerequisite:* ENG 730 or consent of instructor. Current objectives, problems, and techniques teaching ESL to adult immigrants in the community. Study of needs assessment, curricula, materials, and various methodologies to teach adults.

**ENG 737 Introduction to Corpus Linguistics (3)**

*Prerequisite:* ENG 421. Introduction to corpus linguistics and its application to issues such as language description, language variation, and language teaching; corpus-based research methods.

**ENG 738 Pragmatics and Oral Skills (3)**

*Prerequisites:* ENG 425 and 730. Pragmatics research and methods for teaching social interaction skills for TESOL; application of materials appropriate to specific cultural and educational contexts.

**ENG 739 Advanced Field Methods (3)**

*Prerequisites:* ENG 421, 424, 725, proficiency in Spanish, and consent of instructor. A hands-on field seminar in documentary linguistics that is taught as a 3-week summer abroad program in Oaxaca, Mexico.

**ENG 741 Seminar: Theory of Literature (3)**

*Prerequisite:* classified graduate status in English literature master's degree program or consent of instructor. Theory of literature and practice in the criticism of literature, leading to a major essay involving research.

**ENG 742 Seminar: Studies in Criticism (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 744 Seminar: Literature and Psychology (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Contributions of depth psychology to the understanding of selected works of literature.

**ENG 746 Seminar: Opera and Literature (3)**

*Prerequisite:* ENG 741 (may be taken concurrently) or consent of instructor. Literary aspects of the creation, composition, production, and interpretation of opera. Literary texts that inspire operas will be interpreted critically along with the operas they inspired. Opera libretti will be examined as literature interactively with opera's musical, dramatic, and performative elements. (Also offered as ENG 746. May not be repeated under alternative prefix.)

**ENG 747 Feminist Criticisms (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Cross listed with WGS 747. For course description, see WGS 747. (May not be repeated under alternate prefix.)

**ENG 748 Rhetoric, Politics, and Ethics of Deconstruction (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. An exploration of the rhetoric, politics, and the ethics of deconstruction in selected works by Derrida, De Man, Lacoue-Labarthe, Nancy, and Blanchot.

**ENG 750 Seminar in Medieval English Literature (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. May be repeated when topics vary.

**ENG 751 Seminar: Studies in 16th Century English Literature (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 752 Seminar: Studies in 17th Century English Literature (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 753 Seminar: Studies in 18th Century English Literature (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 754 Seminar: The Romantic Movement (3)**

*Prerequisite:* ENG 741 (may be taken concurrently) or consent of instructor. Ideas, themes, or literary problems in the works of such late eighteenth and early nineteenth century authors as Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats.

**ENG 755 Seminar: Studies in Victorian Literature (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 6 units as topics vary.

**ENG 756 Seminar: 20th Century English Literature (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**ENG 757 Shakespeare History Plays (3)**

*Prerequisite:* ENG 741 or consent of instructor. In-depth study of selected Shakespeare history plays, pairing close-reading of the plays with extensive reading of primary and secondary sources on the histories of English sovereignty, political controversies, property, and the development of "history."

**ENG 758 Seminar: Southern African Literature in English (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Study of Southern African literature in English from 1950 to the present with accompanying historical and theoretical texts. Writers from South Africa, Zimbabwe, and Botswana include Mphahlele, Gordimer, Coetzee, Head, Ndebele, Marechera. Emphasis on "postcolonial" issues and dismantling of apartheid.

**ENG 760 Seminar: Studies in American Literature, 1600-1899 (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 762 Seminar: Twentieth Century American Literature (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. A major work, author, literary trend, or other literary problem arising from the literature. May be repeated when topics vary.

**ENG 763 Contemporary American Short Fiction (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Advanced study of the major fiction writers, post-World War II era to the present. The contemporary short story in the United States.

**ENG 770 Seminar: the Novel (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. A major literary problem in the genre.

**ENG 772 Seminar: Drama (3)**

*Prerequisite:* ENG 741 (may be taken concurrently) or consent of instructor. Investigation of post-World War II British and American dramaturgy.

**ENG 780 Seminar: Individual Authors (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Author to be specified in Class Schedule. May be repeated when author varies.

**ENG 782 Seminar: Chaucer (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Selected works: examination of sources, textual problems, rhetorical techniques, language, and the cultural background.

**ENG 785 Seminar: Shakespeare (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Representative plays: examination of textual problems, dramatic technique, language, imagery, and interpretation.

**ENG 789 Milton (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. In-depth study of Milton's prose and poetry; examination of technique, language, imagery and interpretation.

**ENG 790 Seminar: Selected Studies (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**ENG 800 Special Topics in the Study and Teaching of Composition and Reading (3)**

*Prerequisite:* ENG 657. Topic to be specified in Class Schedule. May be repeated for a total of 9 units when topics vary.

**ENG 802 Internship Teaching English (3)**

*Prerequisites:* senior or graduate standing in English, consent of instructor, and interview. Teaching internship offering intensive training, classroom experience, and community service for students considering teaching in community colleges or community outreach programs such as prison education. May be repeated once for credit.

**ENG 803 Teaching Practicum: Literature (3)**

*Prerequisites:* by application only; contact English Department or see English Department website for details. Pedagogical issues in the teaching of literature by assisting professors in conducting large lecture courses. May be repeated for a total of 6 units.

**ENG 804 Teaching Practicum: Linguistics (3)**

*Prerequisites:* by application only; contact English Department or see English Department website for details. Pedagogical issues in teaching linguistics through assisting professors in conducting large linguistic courses. Teaching workshops include pedagogical techniques, syllabus construction, responding to student questions, and fostering student participation.

**ENG 820 The Constructed Body in Literature (3)**

*Pre- or co-requisite:* ENG 741 or consent of instructor. Advanced seminar in how British and American cultures have represented the construction of bodies.

**ENG 832 Seminar: Immigrant Literacies and Community-Based Projects (3)**

*Prerequisite:* ENG 425 and 426, or consent of instructor. Paired with ENG 432. See ENG 432 for course description. Students who complete ENG 832 may not take ENG 432 for credit.

**ENG 890 Seminar in Composition Research (3)**

*Prerequisite:* admission to MA Composition Program or to Composition or Post-Secondary Reading Certificate Program; ENG 700 with grade of B or better. Research methods in composition.

**ENG 891 Integrative Seminar in Teaching English to Speakers of Other Languages (3)**

*Prerequisite:* final semester in M.A. program. Major issues in teaching English to speakers of other languages. For Master of Arts candidates in English with Concentration in Teaching English to Speakers of Other Languages. CR/NC grading only.

**ENG 895 Field Study or Applied Research Project (3)**

*Prerequisite:* advancement to candidacy and approval of adviser, department chair, and committee. Field study or research project incorporating application of knowledge and techniques acquired in the student's program of study. CR/NC grading only.

**ENG 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the Master of Arts and recommendation of major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**ENG 899 Special Study (1-3)**

*Prerequisites:* consent of graduate coordinator and supervising faculty member. Individual research into an issue emphasizing language and/or literature. Enrollment by petition and limited to graduate students in the program. May be repeated for a total of 6 units.

**ENVIRONMENTAL STUDIES***Undergraduate Courses***ENVS 224 Research Methods for Environmental Studies (4)**

*Prerequisite:* ENVS major or consent of instructor. Introduction to quantitative and qualitative research methods in environmental studies. Scientific method, field methods in natural and social sciences, and data analysis including descriptive statistics, and hypothesis testing. Lecture, 3 units; Lab, 1 unit.

**ENVS 300 Environmental Studies (3)**

*Prerequisite:* upper division standing or consent of instructor. Priority enrollment for ENVS majors. Introduction to environmental studies; an examination of the history of the environmental movement, exploration of strategies to effect constructive change, analysis of environmental fields, and the need for their integration.

**ENVS 306 Economics and the Environment (3)**

*Prerequisite:* upper division standing or consent of instructor. How economic systems impact the natural environment and how the natural environment underlies the economy. Includes neoclassical and ecological economics perspectives. (Cross listed with ECON 306. May not be repeated under the alternate prefix.)

**ENVS 331 Global Environmental Crisis (4) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Cross listed with I R 331. For course description, see I R 331. (May not be repeated under alternate prefix.)

**ENVS 380 Chemistry Behind Environmental Pollution (3) [GE]**

*Prerequisite:* CHEM 115 with grade of C- or better. Cross listed with CHEM 380. For course description, see CHEM 380. (May not be repeated under alternate prefix.)

**ENVS 450 Environmental Law and Policy - GWAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C- or better. ENVS 300 or consent of instructor. Introduction and overview of environmental policies and the legal system at the national and international level through directed readings, class discussion, and research in the field of environmental law and policy. (ABC/NC grading only.)

**ENVS 470 Climate Politics and Policy (3)**

*Prerequisite:* ENVS 300 or consent of instructor. Domestic and international politics surrounding both climate change and the requirements of climate policy in the context of a global society dedicated to economic growth and characterized by sharp divisions between rich and poor.

**ENVS 570 Campus Sustainability (3)**

*Prerequisite:* Upper division standing or consent of instructor. Examination of current sustainability issues and efforts at San Francisco State University and at universities and other institutions across the country.

**ENVS 600 Environmental Problems and Solutions (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with GEOG 600. For course description, see GEOG 600. (May not be repeated under alternate prefix.)

**ENVS 640 Recreational Use of National Parks and Protected Areas (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with RPT 640. For course description, see RPT 640. (May not be repeated under alternate prefix.)

**ENVS 657 Natural Resource Management: Biotic Resources (4)**

*Prerequisite:* GEOG 101, GEOG 103, or consent of instructor. Cross listed with GEOG 657. For course description, see GEOG 657. (May not be repeated under alternate prefix.)

**ENVS 680 Environmental Studies Internship (1-3)**

*Prerequisite:* ENVS 300, upper division standing and consent of instructor. Fieldwork in approved public, private, non-profit, environmental organizations, government and non-government agency or local corporation under supervision of organization and faculty coordinator. May be repeated for credit on advisement. [CSL may be available; consult index for page reference.]

**ENVS 690 Senior Seminar in Environmental Studies (3)**

*Prerequisites:* senior standing, ENVS major, completion of core. Integration and application of major concentration in ENVS. Trends in ENVS. Group projects working with the community to assist in problem solving or activism; job evaluation.

**ENVS 699 Special Study (1-3)**

*Prerequisite:* upper division standing; consent of instructor, major adviser, and department chair. Supervised study of a particular issue selected by the student. May be repeated for a total of 6 units.

**ETHNIC STUDIES***Undergraduate Courses***ETHS 100 Introduction to Ethnic Studies (3) [GE]**

History, objectives, and philosophy of Ethnic Studies. Student's personal, educational, and career development in a pluralistic society and in an institute of higher education. May be repeated for a total of 6 units.

**ETHS 101 First Year Experience in Ethnic Studies (1-3)**

Foundations of intellectual, academic, and career preparation for majors and minors in the College of Ethnic Studies. CR/NC grading only. May be repeated for a total of 4 units.

**ETHS 102 Basic Achievement Techniques (1-3)**

Examination and application of basic skills development among diverse students. Use of appropriate strategies and methods to support the intellectual and spiritual advancement of the student. Concurrent enrollment in another specified course may be required. May be repeated for a total of 6 units.

**ETHS 110 Critical Thinking and the Ethnic Studies Experience (3) [GE]**

Basic skills involved in understanding, criticizing, and constructing arguments by using materials reflective of experiences of ethnic/racial groups in the U.S. [CSL may be available; consult index for page reference.]

**ETHS 210 Asian-American Culture (3) [GE]**

Ethnic values and cultures in America using Asian-American arts, languages, and literatures. Manner in which these works reflect and express the character of the Asian-American experience and the forces that have shaped that experience.



**ETHS 220 Asians in America (3) [GE]**

Factors that define minority groups and their positions in American society using Asian-Americans as a case study. Perspectives and methodologies of the emerging discipline of ethnic studies.

**ETHS 224 Arab-American History, Community, and Activism (3)**

*Prerequisite:* None. Introduction to Arab-American history, community, and organizational development in the United States.

**ETHS 240 All Power to the People: Comparative Freedom Movements of the "Sixties" (3) [GE]**

Introduction to the history and comparative survey of the African American, Chicana/o, Native American, and Asian American protest/liberation movements of the "Long Sixties" (1945-1975).

**ETHS 250 Race, Ethnicity and Power in America (3) [USG,CSLG]**

Critical examination of political concepts, processes and constructions of power that center race and ethnicity within a comparative analysis of American ideals, institutions and laws. Includes a study of constitutional issues and state and local governmental processes. (Fulfills the U.S. Government and California State and Local Government components of the U.S. History and Government Requirement)

**ETHS 255 Voices in Exile: Arab-American and Civil Liberties post-9/11 (3)**

*Prerequisite:* None. Legal experts and practitioners will lecture and lead discussions on changes to laws post 9/11, focusing on how changes affect the Arab-American community. The LA8 case will be used as a case study to analyze how Arab-American's civil liberties have been affected by government actions.

**ETHS 260 Ethnic Studies: The African American and Western Racism (3) [GE]**

Behavioral and social sciences used to compare and analyze across time, space, and geographical region, responses to racism by world culture and civilization of people of African descent.

**ETHS 280 Race, Gender, and Science Fiction (3)**

Science fiction as a way of examining intersections of race, gender, and sexuality. Includes histories such as slavery, removal, and colonization. Discussion of reproductive technologies.

**ETHS 285 Race, Sports and Society (3)**

Examines connections between race, "politics" and high-profile professional sports in the United States and abroad. Multiple issues explored using interdisciplinary approach, including critical race theory and socio-historical and socioeconomic constructs.

**ETHS 300 Writing in Ethnic Studies - GVAR (3)**

*Prerequisite:* ENG 214, AFRS 214, RAZA 214, or AAS 214, or equivalent, with a grade of C- or better. AAS, AIS, AFRS, or RAZA major. Foundations of writing in the disciplines of Ethnic Studies: Africana Studies, American Indian Studies, Asian American Studies, and Raza Studies. Draws on the behavioral and social sciences, the humanities, and the creative arts to prepare students for advanced work in Ethnic Studies, and for careers requiring breadth and depth of knowledge. (ABC/NC grading only.)

**ETHS 330 Comparative Race and Ethnicity in the U.S.: Class, Gender, and Nation (3)**

*Prerequisite:* upper division standing or consent of instructor. Examines dynamics of race and racism by analyzing intersections of class, race, gender, and nationalism, including theoretical perspectives shaping the subfield of comparative race and ethnicity in sociology, theories of racial formation, constructivist theory, ethnic boundaries, assimilation and ethnocentrism. (Cross listed with SOC 330. May not be repeated under alternate prefix.)

**ETHS 350 Race, Labor and Class (3)**

*Prerequisite:* Upper division standing or consent of instructor. Exploration of historic and contemporary intersections between communities of color and struggles for economic justice. Labor (broadly defined) remains profoundly racialized. This racialized class struggle will constitute the center of gravity for this course.

**ETHS 360 Cultural Dialogues and Ethnic Literature (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Ethnic literature as a comparative dialogue between cultures, in relation to other forms of artistic expressions, and within the context of the humanities, cultural patterns, aesthetic experiences, and political activism.

**ETHS 370 Islamophobia: Roots, Development, and Contestation of Hatred (3)**

*Prerequisite:* ETHS 100. Examination of how limited conceptual frameworks color our understandings of history, race, gender, religion, and justice with regard to Muslims.

**ETHS 380 Coloring Queer (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Interdisciplinary examination of queers of color framing theory, history and discourse, and the expressions and intersections of difference based on sexual orientation, race, class, gender, and nationality. Specific focus on racism, interracial dating, transracial adoption, fetishes, and other coloring queer phenomena. (Cross listed with SXS 380. May not be repeated under alternate prefix.)

**ETHS 410 Grassroots Organizing for Change in Communities of Color (3)**

*Prerequisite:* upper division standing or consent of instructor. An advanced examination of grassroots social change movements in communities of color in the U.S.; how they are organized; how they succeed and even fail; by combining social change theory, history, and practical contemporary approaches to grassroots social justice work. (Cross listed with SOC 410. May not be repeated under alternate prefix.)

**ETHS 420 Arab American Identity: Memory and Resistance (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Examination of emergent Arab American identity from the historical context of post-colonial processes including nationalism, culture, and politics. Anti-orientalist analysis utilizing texts from different subject areas including history, poetry, psychoanalysis, post-colonial studies, critical theory, and cinema.

**ETHS 430 Arab Media Images in America: Impact on Arab Americans (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Historical and contemporary imaging of Arab people in their mainstream American media and its effects on Arab American communities and individuals. A look at stereotypes and negative Arab images in American film, television, literature, and journalism.

**ETHS 435 National Security and the Racialization of Arabs and Muslims in North America (3)**

*Prerequisite:* ETHS 100; junior and senior standing. Examination of how U.S. and Canadian National Security policies have racialized and targeted members of Arab and Muslim communities since September 11, 2001.

**ETHS 450 Contemporary Arabic and Arab American Literature (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Contemporary literature from Arab American and Arabic speaking communities and their diasporas. Exploration of the political and cultural context of the Arab region by using poetry and fiction as a foundation. (Cross listed with ARAB 450. May not be repeated under alternate prefix.)

**ETHS 460 AIDS and People of Color in the U.S. (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with COUN 450. For course description, see COUN 450. (May not be repeated under alternate prefix.)

**ETHS 466 Race and American Democracy (4) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with PLSI 466. For course description, see PLSI 466. (May not be repeated under alternate prefix.)

**ETHS 470 Latina/o Immigration to the U.S. (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with LTNS 470 [formerly RAZA 470]. For course description, see LTNS 470. (May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**ETHS 473 Unfree Labor in Early America (3)**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Cross listed with HIST/LABR 473. For course description, see HIST 473. (May not be repeated under alternate prefix.)

**ETHS 480 Youth Culture, Race and Resistance (3)**

*Prerequisite:* upper division standing or consent of instructor. Surveys how young people of color use popular culture to challenge social inequalities based on race, ethnicity, gender, sexuality, class and nationality. Students will gain theoretical tools to analyze youth culture and its relationship to social change.

**ETHS 520 Race, Radicalism and Revolution (3)**

*Prerequisite:* upper division standing or consent of instructor. Surveys diverse revolutionary movements and moments; theoretical and practical intersection of race with class, gender, sexuality and national/global oppression; role of culture and consciousness; relationship of "the revolution" to state, meaning of solidarity, leadership models and liberated visions of society/world.

**ETHS 545 Traditional Kulintang Music and Dance of the Southern Philippines (3)**

*Prerequisite:* upper division standing or consent of instructor. Music and dance of Southern Philippines, emphasis on Kulintang tradition of Mindanao and Sulu Archipelago. Lectures and hands-on workshops on dance movement and music of Kulintang culture. May be repeated for a total of 6 units. (Cross listed with DANC/MUS 545. May not be repeated under alternate prefix.)



**ETHS 566 Gender and Modernity in Arab and Muslim Communities (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with WGS 566. For course description, see WGS 566. (May not be repeated under an alternate prefix.)

**ETHS 571 Women, Class, and Race (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Effects of class division and racism on the experiences, self-images, and social identities of women in U.S. Nature and relationships of the ideologies which underlie these divisions.

**ETHS 580 Educational Equity (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with LTNS 580 [formerly RAZA 580] and SOC 580. For course description, see LTNS 580. (May not be repeated under an alternate prefix.) [CSL may be available; consult index for page reference.]

**ETHS 590 Ethnic Studies Travel Study (1)**

*Prerequisites:* upper division standing or consent of instructor. Sponsored group travel study to a designated location.

**ETHS 600 History of People of Color in the U.S. (3) [USH]**

*Prerequisite:* upper division standing or consent of instructor. History of the U.S. people of color, their experience in the development of American society, from 1600s to present. Consequences of domination and racism in thwarting economic interests, and responses to limiting institutional arrangements. (Cross listed with HIST 466. May not be repeated under alternate prefix.) (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**ETHS 625 Mixed Race Studies: A Comparative Focus (3)**

*Prerequisite:* upper division standing or consent of instructor. Introduction to the field of mixed race studies from a comparative and ethnic studies perspective. Exploration of various multiracial issues for ethnic studies from the viewpoint of scholars and cultural expressionists who are themselves of mixed-racial heritage. ETHS 630 Palestine: Ethnic Studies Perspective (3)

*Prerequisite:* upper division standing and ETHS 630. Advanced seminar examines Palestinian diasporic experiences in an historical and a comparative perspective. The rise, development, and decline of a Palestinian resistance movement will be the center of analysis. Seminar situated in post-colonial and diaspora/exile studies. (Paired with ETHS 730. Students who have completed ETHS 730 may not take ETHS 630 for credit.)

**ETHS 635 Diasporas & Transnationalism Diasporas, Gender, Coloniality (3)**

*Prerequisite:* upper division standing or consent of instructor. How do dialects of geography, positionality and social structures shape imaginaries of "home", "homeland", and "back home"? Indigenous experiences are employed to comparatively examine historical and contemporary linkages between gender/sexuality regimes, community formations, and colonial legacies.

**ETHS 637 Experimental Novel: 1950-1980 (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Cross listed with ENG 637. For course description, see ENG 637. (May not be repeated under an alternate prefix.)

**ETHS 655 Comparative Border Studies: Palestine and Mexico (3)**

*Prerequisite:* ETHS 100 or consent of instructor. Examination of debates and tensions in border studies utilizing case studies from Palestine and Mexico; focus on the history and development of the walls that U.S. and Israeli government are building and their impact on displacing marginalized communities.

**ETHS 657 South Asian Diaspora (3)**

*Prerequisite:* upper division standing. Examination of South Asian emigration and Diaspora. Focus on how immigrants and their children construct identities and communities. Compares how colonialism, nationalism, race, gender, sexuality and class have shaped their experiences in different locations. (Cross listed with AAS 657. May not be repeated under an alternate prefix.)

**ETHS 665 Asian American Community and Public Policy (3) [GE]**

*Prerequisite:* upper division standing. Public policy issues, their impact on and the responses from the Asian American community, to illustrate the relationship and complexities of local, state, and federal policies facing the Asian American community. [CSL may be available; consult index for page reference.]

**ETHS 670 Making Whites: Race-making in America (3)**

*Prerequisite:* upper division standing or consent of instructor. Evolution and implications of whiteness in America from colonial period to the present post-Civil Rights, multi-cultural era; includes the definition of whiteness and critical role of the racial construction of whiteness in the history of American racism and race relations. (Cross listed with HIST 462. May not be repeated under alternate prefix.)

**ETHS 685 Projects in the Teaching of Ethnic Studies (1-4)**

*Prerequisites:* upper division standing and consent of instructor. Academic service learning practicum/internship experience as an undergraduate instructional aide. Participation in the teaching of a regular instructionally-related class. Limited to undergraduate students only. May be repeated for a total of 4 units.

**ETHS 697 Field Research or Internship in Ethnic Studies (1-3)**

*Prerequisite:* upper division standing or consent of instructor. Development of research methodology of Third World societies in the U.S. Gathering materials through non-written sources such as artifacts, oral evidence, participation-observation. May be repeated for a total of 6 units with departmental approval. [CSL may be available; consult index for page reference.]

**ETHS 699 Special Study (1-3)**

*Prerequisites:* consent of adviser, instructor, and program coordinator. Supervised individual study of a particular inter-ethnic problem in ethnic studies. ETHS 699 is repeatable for a maximum of 6 units.

**Graduate Courses****ETHS 710 Theories and Issues in Ethnic Studies (3)**

*Prerequisite:* consent of instructor. Concepts and theories in ethnic studies. Identifies, analyzes, and critically reviews the American history and experience of people of color.

**ETHS 720 Research Methods in Ethnic Studies (3)**

*Prerequisites:* basic course in statistics and consent of instructor. Research methods pertaining to African Americans, Asian Americans, La Raza, and American Indians in third world critical perspective: research proposal, data collection analysis, interpretation, statistical summarization. Examples from the third world experience.

**ETHS 730 Palestine: Ethnic Studies Perspective (3)**

*Prerequisite:* ETHS 700 or 800; graduate Standing. Paired with ETHS 630. See ETHS 630 for course description. Students who have completed ETHS 630 may not take ETHS 730 for credit.

**ETHS 750 Ethnic Community Practicum (3)**

*Prerequisite:* consent of instructor. Philosophies, strategies, and methods in community studies. Evaluation of alternatives in terms of issues facing third world communities. Internship in a community-based agency or organization. Classwork, 2 units; field work, 1 unit.

**ETHS 820 Advanced Research Seminar in Ethnic Studies (3)**

*Prerequisite:* ETHS 720 or consent of instructor. Seminar on advanced research in ethnic studies. Key elements in developing a research or creative work project.

**ETHS 885 Graduate Projects in the Teaching of Ethnic Studies (3)**

*Prerequisites:* graduate status in ethnic studies and consent of instructor. Limited to graduate students in the program. Academic service learning practicum/internship experience as an undergraduate instructional aide. Participation in the teaching of a regular instructionally related class.

**ETHS 895 Field Study (3)**

*Prerequisites:* advancement to candidacy and approval of graduate major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**ETHS 896 Directed Reading in Ethnic Studies (3)**

*Prerequisite:* consent of adviser. Intensive directed reading in ethnic studies under the supervision of a faculty member.

**ETHS 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy and approval of graduate major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**ETHS 899 Special Study (1-3)**

*Prerequisites:* consent of graduate coordinator and supervising faculty member. Individual research into an issue in ethnic studies. Enrollment by petition and limited to graduate students in the program.

**FILIPINO****Undergraduate Courses****FILI 101 First Semester Filipino (3) [GE]**

Understanding, speaking, reading, and writing Filipino; culture, history, politics, and geography of the Filipino-speaking communities. Intended for non-native speakers of Filipino.

**FILI 102 Second Semester Filipino (3) [GE]**

*Prerequisite:* FILI 101 or equivalent. Understanding, speaking, reading, and writing Filipino; culture, history, politics, and geography of the Filipino-speaking communities.

**FINANCE***Undergraduate Courses***FIN 350 Business Finance (3)**

*Prerequisites:* grade of C- or better in ACCT 101, ECON 100 and 101, DS/MATH 110, DS 212, ISYS 263; upper division standing. Sources, methods, and instruments used by firms in obtaining and utilizing funds, in domestic and international markets, for short- and long-term operations, designed to maximize shareholders' wealth.

**FIN 351 Financial Management (3)**

*Prerequisites:* FIN 350 with a grade of C- or better; enrollment priority for finance majors and minors. Conceptual and analytical aspects of financial decision-making. Risk-return analysis, capital budgeting, capital structure, valuation, and cost of capital.

**FIN 353 Financial Institutions (3)**

*Prerequisites:* FIN 350 with a grade of C- or better; enrollment priority for finance majors and minors. Financial institutions in our contemporary financial system; their role in financial markets and in financing business investment, their regulation, investment policies, management problems, and current developments.

**FIN 355 Investments (3)**

*Prerequisites:* FIN 350 with a grade of C- or better; enrollment priority for finance majors and minors. Sources of investor information. Classes of investments, movement of security prices; analysis and interpretation of financial statements. The role of Wall Street; adapting investment policy to investor needs and purposes.

**FIN 365 Real Estate Principles (3)**

*Prerequisite:* FIN 350 (C- or better). Enrollment priority for finance majors and minors. Economic, financial, and legal principles of real estate; real property contracts and interest; analysis of housing markets; evaluation of governmental policies and social changes; considerations in owning, leasing, managing various types of realty.

**FIN 536 International Finance (3)**

*Prerequisite:* FIN 350 (C- or better) and IBUS 330. Enrollment priority for finance majors and minors. International financial environment and corporate financial management. Topics include balance of payment, foreign exchange markets, international parity conditions, foreign exchange risk management and international financial markets. Plus-minus letter grade only.

**FIN 653 Seminar in Bank Management (3)**

*Prerequisite:* FIN 353 required; ECON 500 recommended. Enrollment priority for finance majors and minors. Analysis of decisions in liquidity, forecasting fund flows, portfolio adjustments, capital structure, profitability, and regulatory constraints applicable to bank management.

**FIN 699 Special Study (1-3)**

*Prerequisites:* FIN 350 and two additional required courses for the concentration with a minimum grade of B or better, senior standing, and consent of instructor. Intensive problem analysis under the direction of a finance faculty member. Open only to upper division students who have demonstrated ability to do independent work. CR/NC grading only.

*Graduate Courses***FIN 819 Financial Analysis and Management (3)**

*Prerequisites:* BUS 785 with grade of B- or better. Enrollment priority for graduate students in business, and computing and business. Analysis of recent innovations in financial theory applied to domestic and international aspects of working capital management, security valuation, capital budgeting, cost of capital, capital structure, dividend policy, mergers and acquisitions.

**FIN 820 Seminar in Financial Risk Management (3)**

*Prerequisite:* FIN 819 with a grade of B- or better; FIN 825 and 828 recommended. Analysis of the use of financial derivatives to hedge or diversify market risk, interest rate risk, credit risk, liquidity risk, operational risk, currency risk, and legal risk.

**FIN 822 Seminar: Financial Data Analysis (3)**

*Prerequisites:* FIN 819 with grade of B- or better. Extension of knowledge of quantitative methods to financial decisions. Properly matching analytic methods with practical situations, computer-based data analysis.

**FIN 825 Seminar in Investments (3)**

*Prerequisites:* FIN 819 with grade of B- or better. Theoretical literature on domestic and international aspects of investment analysis, valuation, and management. Micro and macro aspects of investments, including models for investment decision-making and security valuation.

**FIN 828 Seminar: Financial Markets and Institutions (3)**

*Prerequisite:* FIN 819 with grade of B- or better. Domestic and international aspects of financial institutions, their markets, securities, and business and regulatory environment. Presented from the viewpoint of managers responsible for asset and liability management of financial institutions.

**FIN 836 Seminar in International Finance (3)**

*Prerequisite:* FIN 819 with grade of B- or better. International financial environment and corporate financial management. Topics include balance payment, foreign exchange markets, international parity conditions, foreign exchange risk management and international financial markets. Plus-minus letter grade only.

**FOREIGN LANGUAGES**

See also Arabic, Chinese, Filipino, French, German, Greek, Hebrew, Italian, Japanese, Latin, Modern Greek Studies, Portuguese, Russian, Sanskrit, and Spanish.

*Undergraduate Courses***F L 325 Linguistics and Foreign Language (3) [GE]**

*Prerequisites:* must be upper division student of foreign languages or have consent of instructor. Introduction to modern linguistic theories and methods for application to specific foreign languages. Background for foreign language study.

**F L 400 Reading and Analysis of Cultural Texts-GWAR (3)**

*Prerequisites:* ENG 214 with grade of C- or better; admission to FL major or consent of instructor. Introduction to representative cultural texts associated with the languages taught in the Department of Foreign Languages and Literatures. All written work will be done in English. ABC/NC grading only.

**F L 599 Internship in Foreign Languages (1-4)**

*Prerequisites:* minimum of twelve upper division units in a foreign language or equivalent foreign language proficiency and consent of instructor. Supervised internship in a setting in which a foreign language is used, integrated with relevant academic research. CR/NC grading only.

*Graduate Courses***F L 700 Seminar in Academic Writing and Research Methodology in English (3)**

*Prerequisite:* admission to a foreign language M.A. or literary studies program or consent of instructor. Introduction to academic writing and research. Satisfies Level II English Proficiency Writing Requirements, but techniques and methods also applicable to foreign languages. Taught in English.

**F L 750 Curriculum and Instruction I: Foreign Languages (3)**

*Prerequisite:* admission to the Single Subject Credential program or consent of instructor. Principles and theory of teaching foreign languages at the secondary school level, including planning of content and instruction with consideration of student learning and state and national standards.

**F L 751 Curriculum and Instruction II: Foreign Languages (3)**

*Prerequisite:* satisfactory completion of F L 750 or consent of instructor. Must be taken concurrently with S ED 660, Student Teaching. Principles and practical experience in the teaching of foreign languages at the secondary school level, including selection and use of instructional technology, evaluation techniques, assessment, and reflective practice.

**F L 799 Internship in Foreign Languages (1-4)**

*Prerequisites:* graduate standing in a foreign language or equivalent foreign language proficiency and consent of instructor. Supervised internship in a setting in which a foreign language is used, integrated with relevant graduate-level academic research. CR/NC grading only.

**F L 800 Seminar in Academic Writing and Research Methodology (3)**

*Prerequisite:* graduate standing in an FLL program or consent of instructor. Seminar in research methods and academic writing for graduate students in Foreign Languages and Literatures.

**FRENCH***Undergraduate Courses***FR 101 First Semester French (5) [GE]**

Understanding, speaking, reading, and writing the French language; basic elements of French and Francophone culture. Acquisition of communicative skills in situational/cultural contexts.

**FR 102 Second Semester French (5) [GE]**

*Prerequisite:* FR 101 or equivalent. Continuation of FR 101.

**FR 205 French in Review I (3) [GE]**

*Prerequisite:* Novice High Level (FR 102 or equivalent). Attainment of Intermediate Low Level in the four skills in French through exercises based on authentic French and Francophone cultural materials. For students who need more review with or before Intermediate French.

**FR 215 Intermediate French I (3) [GE]**

*Prerequisites:* FR 205 or equivalent and a score of 403 or higher on the French Placement Test. Attainment of Intermediate High Level in the four skills in French through increasingly complex tasks based on authentic French and Francophone cultural materials.

**FR 216 Intermediate French II (3) [GE]**

*Prerequisite:* Intermediate High Level in French (FR 215 or equivalent). Attainment of Advanced Low Level in the four skills in French through increasingly complex tasks based on authentic French and Francophone cultural materials.

**FR 301 French Phonetics (3) [GE]**

*Prerequisites:* FR 215 and 216 or equivalent. The French sound system and intonation/prosody. Practice of French pronunciation. Phonetic transcription of written French. Applications to readings in poetry and prose.

**FR 305 French Composition (3) [GE]**

*Prerequisites:* FR 215 and FR 216 or equivalent. Practice in expository writing. Form, development, and organization of various types of essays, including the study of style.

**FR 306 Advanced Conversation (3) [GE]**

*Prerequisites:* FR 215 and 216 or equivalent. May be taken concurrently with FR 305. Oral presentation and group discussions based on literary and cultural topics.

**FR 400 French Culture - GVAR (3) [GE]**

*Prerequisite:* ENG 214 with a grade of C- or better; FR 305, or equivalent. Introduction to French culture from the Middle Ages to the early 20th century. Sixty percent of written work will be done in English. (ABC/NC grading only.)

**FR 410 Contemporary French Civilization (3) [GE]**

*Prerequisite:* FR 305 or equivalent. The culture and civilization of France from 1939 to present.

**FR 450 French/Francophone Literature, Linguistics, and/or Culture (3) [GE]**

*Prerequisites:* FR 305 and FR 306 or equivalent, and FR 325 or equivalent if topic is language, translation, or stylistics. Topic to be specified in Class Schedule. May be repeated for a total of 12 units when topics vary. [CSL may be available; consult index for page reference.]

**FR 500 Introduction to Literary Texts (3) [GE]**

*Prerequisites:* FR 301, 305, and 306, or equivalents. Completion of FR 400, or equivalent, or concurrent enrollment highly recommended. Oral and written analysis of selected texts in French, representative of the different periods of French and Francophone literature.

**FR 501 La littérature française à travers les siècles: thèmes et genres (3) [GE]**

*Prerequisite:* FR 305 or equivalent. FR 301 and 306 recommended. Topic to be specified in Class Schedule. May be repeated when topics vary.

**FR 510 French Medieval and Renaissance Literature (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**FR 520 French Classicism (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**FR 525 17th and 18th Century French Theater (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Introduction to principal dramatic texts and conventions of seventeenth and eighteenth century France. Paired with FR 825. Students who have completed FR 525 may not take FR 825 for credit.

**FR 530 Age of Reason (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**FR 535 Les Philosophes (3) [GE]**

*Prerequisite:* FR 500 or equivalent. 18th century French literature. Social and political writings of Montesquieu, Voltaire, Diderot, and Rousseau. Paired with FR 835. Students who have completed FR 535 may not take FR 835 later for credit.

**FR 540 Romanticism, Realism, and Naturalism (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**FR 555 Art et Poesie: 1860-1940 (3)**

*Prerequisites:* FR 500 or equivalent or consent of instructor. French and Francophone poetry between 1860 and 1940 and its relation with the arts, especially music and painting. (Paired with FR 855. Students who have completed FR 555 may not take FR 855 for credit.)

**FR 560 French Literature from Existentialism to the Present (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**FR 699 Special Study (1-3)**

*Prerequisites:* consent of department chair and instructor. Written project in linguistics, literature or culture. Material adapted to individual needs and interests. Open only to students who have demonstrated ability to do independent work. May be repeated.

**Graduate Courses**

*Prerequisite for each graduate course in French:* admission to French program or consent of instructor.

**FR 800 Seminar in French and Francophone Language and Culture (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**FR 810 Seminar in French Literary Movements, Periods, or Genres (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**FR 812 Le Merveilleux (3)**

*Prerequisite:* B.A. in French or consent of instructor. Discovery of the Other and unknown lands through literary works, maps, and paintings from the Middle Ages to 17th century. How medieval and early modern France imagines remote worlds and their exotic inhabitants.

**FR 820 Seminar in Individual Authors or Works (3)**

Topic to be specified in Class Schedule. May be repeated when different authors or works are treated.

**FR 825 17th and 18th Century French Theater (3)**

*Prerequisite:* FR 500 or equivalent. For course description, see FR 525. Paired with FR 525. Students who have completed FR 825 may not take FR 525 for credit.

**FR 835 Les Philosophes (3)**

*Prerequisite:* FR 500 or equivalent. For course description, see FR 535. Paired with FR 535. Students who have completed FR 835 may not take FR 535 for credit.

**FR 855 Art et Poesie: 1860-1940 (3)**

*Prerequisites:* admission to French M.A. program or consent of instructor. For course description, see FR 555. (Paired with FR 555. Students who have completed FR 855 may not take FR 555 for credit.)

**FR 898 Master's Thesis (3)**

*Prerequisite:* advancement to candidacy for the Master of Arts in French. Thesis must be written in French. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**FR 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member. Study is planned, developed, and completed under the direction of a member of the department faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**GEOGRAPHY****Undergraduate Courses****GEOG 101 Our Physical Environment (3) [GE]**

Environmental processes; elements of weather and climate; shapes of landforms; formation, distribution of soils and natural vegetation; physiography of oceans. Synergistic relations between the physical and human environments.

**GEOG 102 The Human Environment (3) [GE]**

Nature of cultural geography; interpretation of the cultural elements of the geographic landscape and study of our changing relationship with the environment.

**GEOG 103 Geographic Techniques (3)**

*Prerequisites:* designed to immediately follow GEOG 101 and 102 or equivalents. Geographical analysis; methodology, tools, and techniques used in geographical research, including data acquisition, classification, descriptive statistics; map reading; introduction to geographic information science and remote sensing.

**GEOG 107 World Regions and Interrelations (3) [GE]**

World culture regions: economic development, paths of cultural evolution, bases for political organization and resource appraisals; persistence of cultural differentiation in face of increasing interdependence, cultural transfer, and common threats to humanity.

**GEOG 203 Geographical Measurement (3) [GE]**

*Prerequisite:* a score of 550 or above on the Entry Level Mathematics (ELM) examination, or an approved exemption. Extraction and analysis of qualitative and quantitative information about our environment. Applications of numerical and statistical techniques through the use of maps, remote sensing and aerial photography, and surveying.

**GEOG 312 Geography of Landforms (4)**

*Prerequisite:* GEOG 101 or consent of instructor. Development of earth's surface landforms through processes involving weathering, hill slopes and flowing water, wind and ice. Structural and climatic control of landforms. Geographic analysis of landform systems. Classwork, 3 units; laboratory, 1 unit.

**GEOG 313 Earth's Climate System (4)**

*Prerequisites:* GEOG 101 or consent of instructor. Physical characteristics and processes of Earth's climate system; atmospheric composition, radiation, energy and water budgets and circulations, interaction with biological, oceanic and cryospheric systems and global climate change. Computer-based analysis using climate measurements and models. Classwork, 3 units; fieldwork, 1 unit.

**GEOG 314 Bioclimatology (4)**

*Prerequisite:* GEOG 101 or equivalent. Interactions between climate and the biosphere including ecosystem-atmosphere exchanges of energy, water and carbon, agricultural and urban climatology, wind transport and energy and measurement techniques. Classwork, 3 units; fieldwork, 1 unit.

**GEOG 316 Biogeography (4)**

*Prerequisites:* GEOG 101, GEOG 103, or consent of instructor. Distribution, ranges, and limits of plants and animals and the biogeographical effects of human occupancy. Ecological and historical themes, the changing patterns of biota in space and time under changing environmental and human conditions. Classwork, 3 units; fieldwork, 1 unit.

**GEOG 317 Geography of Soils (4)**

*Prerequisites recommended:* GEOG 101 and GEOL 100. Properties of soils and factors of formation: parent material, climate, organisms, topography, and time. Distribution of taxonomic suborders. Soils as a natural resource. Classwork, 3 units; laboratory and field work, 1 unit.

**GEOG 402 Human Response to Natural Hazards (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Human-environmental interactions that result in major and/or frequent disasters to human lives and properties; overview of physical mechanisms of natural hazards; coping strategies of societies; mitigation of natural hazards in the context of sustainable development and environmental conservation.

**GEOG 421 Future Environments (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Geography of the future. Programs from an economic point of view and economic development from an ecological point of view, including the potential productivity of various regions. Future environments of North America.

**GEOG 423 Geographic Perspectives on Gender, Environment and Development (3)**

*Prerequisite:* ENG 214 or equivalent, upper division standing, or consent of instructor. Explores geographic frameworks linking gender and environment and examines how they have influenced the practice of development. Case studies from US, Latin America, Africa and Asia. Topics include global restructuring, gender-population-environment.

**GEOG 425 Economic Geography (4)**

*Prerequisite:* upper division standing or consent of instructor. Location and geographic distribution of the world's major types of production and associated systems of distribution and consumption; interpretation of economic activities in relation to various features of the environment. Classwork, 3 units; fieldwork, 1 unit. (Cross listed with ECON 425. May not be repeated under alternate prefix.)

**GEOG 427 Agriculture and Food Supply (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Investigation of the location and distribution of world agricultural production and the environmental forces influencing agricultural organization and food supply. Problems in U.S. and California agriculture are analyzed. Classwork, 3 units; fieldwork, 1 unit.

**GEOG 428 International Political Economy of Food and Hunger (4)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with I R 428. For course description, see I R 428. (May not be repeated under alternate prefix.)

**GEOG 432 Urban Geography (4) [GE]**

*Prerequisite:* ENG 214 or equivalent. Geographic characteristics of cities in relation to evolution, morphology, and function. The internal and external relationships of diversified urban areas. Classwork, 3 units; fieldwork, 1 unit. (Cross listed with USP 432. May not be repeated under alternate prefix.)

**GEOG 433 Urban Transportation (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Interrelationship between urban transportation systems and internal spatial pattern of urban areas. Impact of the automobile and mass transit modes on urban morphology. Regional transportation planning methodology. Classwork, 3 units; fieldwork, 1 unit. (Cross listed with USP 433. May not be repeated under alternate prefix.)

**GEOG 434 Geographies of Health and Health Care (3)**

*Prerequisite:* Upper division standing or consent of instructor. Geographies of health; the role place plays in determining the quality of health status, and in shaping access to and use of health care. (Cross listed with H ED 434. May not be repeated under an alternate prefix.)

**GEOG 435 Geography of Global Transportation (4)**

*Prerequisites:* ENG 214 or equivalent, GEOG 433, or consent of instructor. Global transportation policies involving rail transit, bicycles, freight movement, airport ground access and automobile travel. Case studies in the Bay Area, North America, Europe, China, and Africa. Classwork, 3 units; fieldwork, 1 unit.

**GEOG 454 San Francisco on Foot (4)**

*Prerequisite:* Upper division standing or consent of instructor. Selected geographic themes--accessibility, spatial, interaction, differential land use, and the relationships between technology, values, and environmental utility--as expressed in the neighborhoods of San Francisco. Classwork, 2 units; fieldwork, 2 units. May be repeated for a total of 8 units.

**GEOG 455 Geography of Ethnic Communities (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. The spatial structure and organization of ethnic communities as illustrated by reference to San Francisco and other American cities.

**GEOG 550 Geography of the United States and Canada (3)**

*Prerequisite:* ENG 214 or equivalent. Anglo-America's physiography, climates, vegetation, soils, natural resources; the effect on development of industry, commerce, and population distribution.

**GEOG 552 Geography of California (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Location and description of California's natural resources; influence of land surface, climate, natural vegetation, soils, and minerals upon economic development, routes of commerce, and population distribution. Current water problems.

**GEOG 570 Regional Studies: Selected Regions (3)**

*Prerequisites:* upper division standing and consent of instructor. Topic to be specified in Class Schedule. May be repeated when regions vary. Classwork, 2 units; laboratory, 1 unit.

**GEOG 575 Emerging China (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Geographic environment of China and impact on modern socioeconomic development. Environmental and resource challenges, regional development strategies, and geopolitical imperatives. GEOG 600 Environmental Problems and Solutions (3) [GE]

*Prerequisite:* ENG 214 or equivalent. Ecological approach to nature and the landscape. Human populations, natural resources, and environmental quality in California with particular reference to the San Francisco Bay Area. (Cross listed with ENV 600. May not be repeated under alternate prefix.)

**GEOG 601 Field Methods in Human Geography (4)**

*Prerequisite:* Geog 103. Application of field methods in human geography. Research methodologies and design including interviewing, surveying, ethnographic methods, and archival research. (Paired with GEOG 701. Students who complete GEOG 701 may not take GEOG 601 for credit.)

**GEOG 602 Field Methods in Physical Geography (4)**

*Prerequisite:* GEOG 103 Application of field methods to physical geography. Research methods and experimental design for field-based data collection including: geomorphic surveying, biometric sampling and atmospheric measurement and monitoring. Classwork, 2 units; fieldwork, 2 units. Paired with GEOG 702. Students who complete GEOG 602 may not take GEOG 702 for credit.

**GEOG 603 Introduction to Geographic Information Systems (3)**

*Prerequisite:* GEOG 103 or equivalent. Applications of computers in geographic problem-solving. Investigates the nature of geographic information sources--maps, earth images, and spatial databases--and the application of spatial analysis, mapping, charting, and image display tools. Classwork, 2 units; laboratory, 1 unit.

**GEOG 606 Cartography (4)**

*Prerequisite:* GEOG 103 or equivalent. Techniques of planning and constructing maps; assembly of source materials and compilation; symbol designing, lettering and layout; drafting and reproduction. Manual and automated techniques. Problems of cartographic generalization and symbolization. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**GEOG 610 Remote Sensing I (4)**

*Prerequisite:* GEOG 103. Introduction to remote sensing and digital image processing. Image acquisition, physical background, image interpretation. Display and enhancement of digital images, radiometric and geometric corrections. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**GEOG 611 Remote Sensing of the Environment II (4)**

*Prerequisites:* GEOG 610, or consent of instructor. Advanced remote sensing and digital image processing. Selected topics including object-oriented image processing with Definiens Professional. Classwork, 2 units; laboratory, 2 units. Paired with GEOG 711. Students who have completed GEOG 711 may not take GEOG 611 for credit. Extra fee required.

**GEOG 620 Geographical Information Systems (4)**

*Prerequisite:* GEOG 603 or equivalent. Theory and applications of Geographic Information Systems for automating, analyzing, and producing maps from geographic data. (Paired with GEOG 720. Students who have completed GEOG 720 may not take GEOG 620 for credit.) Classwork, 2 units; laboratory, 2 units. Extra fee required.

**GEOG 621 Geographic Information Systems for Environmental Analysis (4)**

*Prerequisite:* GEOG 603 or equivalent. GIS methods applied to environmental analysis, including raster surface display methods, spatial analysis of categorical and continuous surfaces, spatial statistics and the generation of statistical surfaces from environmental samples and contour data. Paired with GEOG 721. Students who have taken GEOG 721 may not take GEOG 621 for credit. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**GEOG 629 Special Topics in GIS (3)**

*Prerequisite:* GEOG 603 or consent of instructor. Topic to be specified in Class Schedule. GIS research methods and applications, including web-based GIS programming, spatial statistics, and coastal and marine GIS. May be repeated when topics vary for a total of 6 units.

**GEOG 642 Watershed Assessment and Restoration (4)**

*Prerequisites:* GEOG 101 or GEOL 120, GEOG 603, or consent of instructor. Assessing and restoring watersheds and streams. Stream network and watershed processes and properties; variables influencing runoff and erosion; hillslope and stream restoration techniques. Classwork, 3 units; fieldwork and GIS laboratory, 1 unit. (Cross listed with GEOL 642. May not be repeated under alternate prefix.)

**GEOG 646 The Geography of Marine Resources (4)**

*Prerequisite:* GEOG 101 or consent of instructor. Character and spatial arrangements of resources of the ocean; analysis of marine biomass, minerals, and energy; examination of maritime policy and economic aspects of the marine environment. Classwork, 3 units; laboratory, 1 unit.

**GEOG 647 Geography of Water Resources (4)**

*Prerequisite:* GEOG 101 or consent of instructor. Distribution and development of atmospheric, surface, and groundwater resources; interrelationships between water and human activities in California and the West. Divergent solutions to water-related issues and controversies. Classwork, 3 units; laboratory, 1 unit.

**GEOG 651 San Francisco Bay Area Environmental Issues (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Mission and work of environmental management organizations. Managing our air, water, soil, wildlife, and aesthetic resources. Land use and transportation concepts. Field projects. Classwork, 3 units; laboratory, 1 unit. (Cross listed with USP 651. May not be repeated under alternate prefix.)

**GEOG 652 Environmental Impact Analysis (4)**

*Prerequisite:* GEOG 103 or consent of instructor. Cultural and physical environmental interrelationships. Evaluating impact proposals. Reconciling resource potentials with human needs, problems of social development impact, and environmental quality protection. (Cross listed with USP 652. May not be repeated under alternate prefix.)

**GEOG 657 Natural Resource Management: Biotic Resources (4)**

*Prerequisites:* GEOG 101, GEOG 103, or consent of instructor. Basic theories and methodologies of managing forest, wildlife and rangeland resources. Agencies, laws and policies that govern natural resource management. Emphasis on the urban-wildland interface. (Cross listed with ENV 657. May not be repeated under alternate prefix.) Classwork, 3 units; fieldwork, 1 unit.

**GEOG 658 Land-Use Planning (4)**

*Prerequisite:* ENG 214 or equivalent. The institutions, practice, and methodology of land-use planning. Relationship of planning to socio-economic objectives within the context of market and political forces. The planning process, locational analysis, zoning, and negotiated development. Classwork, 3 units; laboratory, 1 unit. (Cross listed with USP 658. May not be repeated under alternate prefix.)

**GEOG 666 Geography of Garbage: Recycling and Waste Reduction (3) [GE]**

*Prerequisites:* ENG 214 or equivalent and junior standing. Geographical analysis of waste. Alternative solutions focusing on the San Francisco Bay Area: development and implementation of resource management programs.

**GEOG 667 Environmental Justice: Race, Poverty and the Environment (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with USP 515. For course description, see USP 515. (May not be repeated under alternate prefix.)

**GEOG 668 Politics, Law, and the Urban Environment (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with USP/PLSI 513. For course description, see USP 513. (May not be repeated under alternate prefix.)

**GEOG 685 Projects in Teaching Geography (1-3)**

*Prerequisite:* Upper division standing. B or better in course for training. Instructor's consent. Training in the teaching of geography. Responsibilities include working with supervising faculty to review and prepare course materials, tutor students, conduct small discussion groups and give brief lectures/demonstrations. May be repeated for a total of 3 units.

**GEOG 688 Geographic Internship (2-6)**

*Prerequisites:* minimum of fifteen (15) units in geography and consent of instructor. Practical geographic assignments with sponsoring agencies. May be repeated when different internships are undertaken to a maximum of 6 units.

**GEOG 690 Proseminar: Geographic Writing and Research - GWR (3)**

*Prerequisites:* completion of ENG 214 or equivalent with grade of C- or better; completion of core and distribution requirements. Research project formulation and development, writing strategies and conventions in academic and professional contexts, career preparation in Geography. ABC/NC grade only.

**GEOG 699 Special Study (1-3)**

*Prerequisites:* consent of instructor, major adviser, and department chair. Supervised study of a particular problem selected by the student in consultation with the adviser. May be repeated for a total of 3 units.

**Graduate Courses****GEOG 701 Field Methods in Human Geography (4)**

*Prerequisite:* Geog 103. Paired with GEOG 601. See GEOG 601 for course description. Students who have completed GEOG 601 may not take GEOG 701 for credit.

**GEOG 702 Field Methods in Physical Geography (4)**

*Prerequisite:* GEOG 103 Paired with GEOG 602. For course description see GEOG 602. Students who complete GEOG 702 may not take GEOG 602 for credit.

**GEOG 705 Geographical Analysis (3)**

*Prerequisite:* GEOG 103 or equivalent and classified status in geography. Methods of statistical analysis and review of their use in geographic literature; univariate and multivariate analysis, graphical presentation; statistical software. Classwork, 2 units; laboratory, 1 unit.

**GEOG 711 Remote Sensing of the Environment II (4)**

*Prerequisite:* graduate standing; GEOG 610 or consent of instructor. Paired with GEOG 611. See GEOG 611 for course description. Students who have completed GEOG 611 may not take GEOG 711 for credit.

**GEOG 720 Geographical Information Systems (4)**

*Prerequisite:* graduate standing; GEOG 603 or equivalent. Paired with GEOG 620. Students who have completed GEOG 620 may not take GEOG 720 for credit. See GEOG 620 for course description.

**GEOG 721 GIS for Environment Analysis (4)**

*Prerequisite:* GEOG 603 or equivalent. Paired with GEOG 621. See GEOG 621 for course description. Students who have taken GEOG 621 may not take GEOG 721 for credit.

**GEOG 735 Global Environmental Policy (3)**

*Prerequisite:* graduate status or consent of instructor. Cross listed with I R 735. For course description, see I R 735. (May not be repeated under alternate prefix.)

**GEOG 751 Environmental Management (3)**

*Prerequisites:* GEOG 600 or consent of instructor, and classified status in geography. Management and planning concepts and their application to problems in resource development and environmental protection. History of environmental management and policy, national and international problems in environmental management.

**GEOG 776 Environmental Policy (3)**

*Prerequisite:* graduate standing or consent of instructor. Cross listed with PA 776. For course description, see PA 776 for course description. (May not be repeated under alternate prefix.)

**GEOG 785 College Teaching of Geography (1-3)**

*Prerequisite:* graduate status; grade of B or better in the course of training; consent of instructor. Training in the teaching of geography. Work with supervising faculty to review and prepare course materials; tutor students, conduct small discussion groups and give brief lectures/demonstrations. May be repeated for 3 units total of degree credit.

**GEOG 789 GIScience Internship (3)**

*Prerequisite:* classified standing in MS GIScience program and consent of instructor. Professional work experience: students will work 135 hours with sponsoring agencies or organizations under the supervision of a faculty member and an on-site work supervisor. (Plus-minus letter grade only.)

**GEOG 801 Scope and Method in Geography (3)**

*Prerequisite:* classified graduate status in geography. Nature of geography and its historical development with emphasis on geographic literature. Alternative geographic approaches to themes central to the discipline.

**GEOG 810 Seminar in Physical Geography (3)**

*Prerequisites:* GEOG 801, appropriate upper division course work, and classified status in geography. Field to be specified in Class Schedule. May be repeated when topics vary.

**GEOG 815 Seminar in GIScience (3)**

*Prerequisites:* upper division coursework in GIScience, classified graduate standing in geography or GIScience, or consent of instructor. Theoretical development of GIScience with emphasis on exploring and discussing research literature in geographic information systems, remote sensing, and spatial analysis.

**GEOG 820 Seminar in Cultural Geography (3)**

*Prerequisites:* GEOG 801, appropriate upper division course work, and classified status in geography. Topic to be specified in Class Schedule. May be repeated when topics vary.

**GEOG 825 Seminar in Economic Geography (3)**

*Prerequisites:* GEOG 425 or consent of instructor, and classified status in geography. Topic to be specified in Class Schedule. May be repeated once when a different topic is studied.

**GEOG 832 Seminar in Urban Geography (3)**

*Prerequisites:* GEOG 432 or consent of instructor, classified status in geography. Seminar in geographic theory, methods of analysis, and research techniques relating to urban areas.

**GEOG 850 Seminar in Regional Geography (3)**

*Prerequisites:* GEOG 801, appropriate upper division course work, and classified status in geography. Topic to be specified in Class Schedule. May be repeated once when topic varies.

**GEOG 858 Seminar in Environmental and Land Use Planning (3)**

*Prerequisites:* appropriate upper division course work and classified status in geography. Nature and status of environmental planning, including contemporary themes and research trends. Application of geographic concepts, methods, and research techniques. (Cross listed with PA 858. May not be repeated under alternate prefix.)

**GEOG 895 Research Project (3)**

*Prerequisites:* classified status in geography, advancement to candidacy for the master's degree, and approval of chair of student's committee. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**GEOG 896 Directed Reading in Geography (3)**

*Prerequisites:* classified status in geography and consent of adviser. Intensive supervised research to achieve better understanding of a specific topic, concept, or area chosen on the basis of individual student need. Readings, tutorial discussion, and research report or creative projects required.

**GEOG 897 Research Project Formulation (2)**

*Prerequisites:* classified status in geography and filing of ATC form. Development of Master's thesis: formulation of research question, literature review and methodology, leading to a written and oral proposal; focus on colloquia, thesis defenses, workshops on grants, publication writing, and research methods. CR/NC grading only.

**GEOG 898 Master's Thesis (3)**

*Prerequisites:* classified status in geography, advancement to candidacy for a master's degree, and consent of chairperson of candidate's committee for the Master of Arts. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**GEOG 899 Special Study (1-3)**

*Prerequisites:* classified status in geography; and consent of graduate major adviser, supervising faculty member, and department chair. Study is planned, developed, and completed under the direction of a member of the departmental faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition. May be repeated for a total of 3 units.

**GEOLOGY***Undergraduate Courses***GEOL 100 Our Dynamic Earth (3) [GE]**

*Prerequisite:* not open to students who have completed GEOL 104. Investigating the geologic processes that are continually shaping our planet, emphasizing the connections between humans and nature and the process of scientific discovery. Designed for non-science majors.

**GEOL 101 Our Dynamic Earth Lab (1) [GE]**

*Prerequisite:* GEOL 100 (may be concurrent); not open to students who have completed GEOL 104. Investigating the geologic processes that are continually shaping our planet, emphasizing the connections between humans and nature and the process of scientific discovery. Hands-on activities to explore Earth processes. Extra fee required.

**GEOL 104 Our Dynamic Earth Lecture and Lab (4) [GE]**

*Prerequisite:* not open to students who have completed GEOL 100 and/or GEOL 101. Investigating the geologic processes that are continually shaping our planet, emphasizing the connections between humans and nature and the process of scientific discovery. Designed for non-science majors. Classwork, 3 units; laboratory and fieldwork, 1 unit. Extra fee required.

**GEOL 105 History of Life (3) [GE]**

Origin and early development of life; evolution of life through geologic time; extinction and replacement of organisms.

**GEOL 110 Physical Geology (4) [GE]**

Composition, structure, and evolution of the earth; earth materials; tectonic and hydrologic systems; land form development; relation of geologic systems to the human environment. Classwork, 3 units; laboratory and fieldwork, 1 unit. Extra fee required. Plus-minus letter grade only.

**GEOL 115 Earth and Life Through Time (4)**

*Prerequisite:* GEOL 110. History of the earth; origin of the continents, oceans, and atmosphere; origin and evolution of life; introduction to major invertebrate and vertebrate fossils; methods and concepts used to decipher the geologic record. Classwork, 3 units; laboratory and fieldwork, 1 unit. Extra fee required.

**GEOL 120 Introduction to Geologic Techniques (2)**

*Prerequisite:* GEOL 110 or equivalent. Introduction to field and laboratory techniques, including scientific writing and library research. Classwork, 1 unit; laboratory and fieldwork, 1 unit.

**GEOL 125 Quantitative Geology (4)**

*Prerequisites:* GEOL 110 and MATH 109 or sufficient score on calculus pretest. Quantitative reasoning and techniques, including statistics, applied to problems in earth science. Classwork, 2 units; lab and fieldwork, 2 units. Weekend fieldtrip required.

**GEOL 270 Environmental Geology (3) [GE]**

Human interaction with the geologic environment. Social and political implications, resource and energy exploitation, land use planning, waste disposal, and human modification of nature. Classwork, 2 units; laboratory and fieldwork, 1 unit. Designed for non-science majors.

**GEOL 302 The Violent Earth (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. The catastrophic geological agents that modify the environment. Significance of processes such as earthquakes and volcanic eruptions in the development of our planet. Concept of time in evaluating the magnitude of these violent events. Designed for non-science majors.

**GEOL 350 Geology of the National Parks (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Applying geologic principles to natural environments of North America, focusing on geologic history and landscape evolution of the National Parks. Uniqueness of natural regions and questions of preservation. Classwork, 2 units; laboratory and fieldwork, 1 unit. Designed for non-science majors. (Plus-minus letter grade only.)

**GEOL 356 Geology of California (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Geology of California, with emphasis on the San Francisco Bay Area. Local field trips and extended excursions to areas of geologic interest. Classwork, 2 units; laboratory and fieldwork, 1 unit. Extra fee required. Designed for non-science majors.

**GEOL 405 Planetary Climate Change (4)**

*Prerequisites:* at least 9 units of physical sciences coursework. Interdisciplinary investigation of physical processes, principles, and tools contributing to our understanding of climate and climate change. Classwork, 3 units; laboratory, 1 unit. (Cross listed with METR/OCN 405. May not be repeated under alternate prefix.)

**GEOL 410 Volcanology (3)**

*Prerequisite:* GEOL 110 or consent of instructor. Volcanic processes, landforms, structures, and rocks; origin and differentiation of magma and relation to plate boundaries; case studies of volcanic events on earth and other planets; applications to archaeology and other disciplines. Classwork, 2 units; laboratory and fieldwork, 1 unit. Extra fee required.

**GEOL 420 Mineralogy and Petrology I (4)**

*Prerequisites:* GEOL 110 and CHEM 115 or consent of instructor. Minerals: physical properties, crystal chemistry, reactions and stability, and identification of common types, including optical mineralogy. Classwork, 2 units; laboratory and fieldwork, 2 units.

**GEOL 425 Integrated Earth Sciences (3)**

*Prerequisites:* upper division standing, a major in science, or consent of instructor. Integrated approaches to scientific subjects. (May be repeated for a total of six units when topics vary.)

**GEOL 426 Mineralogy and Petrology II (4)**

*Prerequisites:* GEOL 420 or consent of instructor. Advanced mineralogy and igneous and metamorphic petrology with a focus on physical and chemical processes in the earth. Classwork, 2 units; laboratory and fieldwork, 2 units.

**GEOL 430 Structural Geology (4)**

*Prerequisites:* GEOL 115 and 420, and any one of the following: MATH 109, satisfactory score on online precalculus test (at math.sfsu.edu), GEOL 125, MATH 226. Mechanical aspects of rock deformation. Description, classification, and genesis of folds, faults, and other structures of the earth's crust. Evolution of regional structures. Classwork, 2 units; laboratory and fieldwork, 2 units.

**GEOL 450 Geomorphology (4)**

*Prerequisite:* GEOL 110; GEOL 125 or MATH 226; and PHYS 111/112 or PHYS 220/222; or consent of instructor. Landscapes, their geologic evolution, and the processes which create and modify them. Classwork, 3 units; laboratory and fieldwork, 1 unit. (Paired with GEOL 750. Students who have taken GEOL 450 may not take GEOL 750 for credit.)

**GEOL 454 Quaternary Climate and Soils (3)**

*Prerequisite:* GEOL 110, senior standing, or consent of instructor. Pleistocene and Holocene environments, and their geomorphic and stratigraphic record. Emphasis on landform evolution, soil genesis, soil genesis, climatic history, sea level changes, neotectonics, and environmental impact. Paired with GEOL 754. Students who have completed GEOL 754 may not take GEOL 454 for credit. Classwork, 2 units; laboratory and fieldwork, 1 unit.

**GEOL 458 Earth's Climate History - GWAR (4)**

*Prerequisite:* ENG 214 with grade of C- or better; CHEM 115, OCN 200, GEOL 115. Examination of Earth's climate history over the last 50 million years; analysis of different mechanisms of climate forcing including tectonic changes, greenhouse gas forcing on long and short time scales, orbital forcing, and internal climate feedbacks. (ABC/NC grading only.)

**GEOL 460 Sedimentology and Stratigraphy-GWAR (4)**

*Prerequisites:* ENG 214 with grade of C- or better, GEOL 115, GEOL 120, and GEOL 420. Sedimentary particles and processes, depositional environments, principles of stratigraphic correlation, and basin analysis. Classwork, 2 units; laboratory and fieldwork, 2 units. ABC/NC grading only.

**GEOL 467 Marine Geology (3)**

*Prerequisite:* GEOL 110 or GEOL 100 or consent of instructor. Intended for majors only. Origin, age, and geological history of the ocean basins; source and distribution of marine deposits; geological evidence concerning continental drift, sea floor spreading, and plate tectonics; current research in marine geology.

**GEOL 470 Neotectonics (3)**

*Prerequisite:* GEOL 430, senior standing, or consent of instructor. Principles of earthquake geology: plate tectonics, fault mechanics, basic seismology, geodesy, tectonic geomorphology, seismic hazard analysis, and case studies of large historical earthquakes. Paired with GEOL 770. Students who have completed GEOL 770 may not take GEOL 470 for credit. Classwork, 2 units; laboratory and fieldwork, 1 unit.

**GEOL 473 Surface Water Hydrology (3)**

*Prerequisite:* GEOL 125 or MATH 226 or consent of instructor. GEOL 110 recommended. Introduction to surface water hydrology; exploration of hydrologic processes; how precipitation and snowmelt become streamflow, evapotranspiration, and groundwater; watershed hydrology, streamflow processes, and water quality. Plus-minus letter grade only.

**GEOL 474 Engineering Geology (3)**

*Prerequisite:* GEOL 110 or an upper division engineering course or consent of instructor. Mechanical properties of earth materials and application of geologic principles to engineering problems. Classwork, 2 units; laboratory and fieldwork, 1 unit.

**GEOL 475 Hydrogeology (4)**

*Prerequisite:* GEOL 110; GEOL 125 or MATH 226; and PHYS 111/112 or PHYS 220/222; or consent of instructor. Physical and geologic factors controlling the occurrence and dynamics of groundwater. Chemical parameters and distribution. Aquifer testing and analysis. Paired with GEOL 775. Students who have completed GEOL 475 may not take GEOL 775 later for credit. Classwork, 3 units; laboratory and fieldwork, 1 unit.

**GEOL 476 Groundwater Contamination (3)**

*Prerequisite:* GEOL 475 or consent of instructor; CHEM 115 recommended. Application of hydrogeologic principles to solution of groundwater contamination problems. Paired with GEOL 776. Students who have completed GEOL 476 may not take GEOL 776 later for credit. Classwork, 2 units; laboratory and fieldwork, 1 unit.

**GEOL 480 Geochemistry (4)**

*Prerequisites:* GEOL 420, and MATH 226 or GEOL 125, or consent of instructor. Chemistry of the earth including cosmochemistry, crystal chemistry, thermodynamics, aqueous geochemistry, stable and radiogenic isotope geochemistry, major and trace element geochemistry, and analytical techniques. Classwork, 3 units; lab, 1 unit. (Paired with GEOL 780. Students who have completed GEOL 780 may not take GEOL 480 for credit.)

**GEOL 485 Ore Deposits (4)**

*Prerequisite:* GEOL 420 or consent of instructor. The origin of ore deposits emphasizing the mineralogic, petrologic, and plate tectonic environments of major deposits from around the world; chemical and physical controls on ore transport and deposition; techniques of mineral exploration and mining. Classwork, 3 units; laboratory and fieldwork, 1 unit. (Paired with GEOL 785. Students who have completed GEOL 785 may not take GEOL 485 for credit.)

**GEOL 590 Seminar in Geosciences (1-3)**

*Prerequisite:* GEOL 110 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**GEOL 642 Watershed Assessment and Restoration (4)**

*Prerequisites:* GEOG 101 or GEOL 120, GEOG 603, or consent of instructor. Cross listed with GEOG 642. For course description, see GEOG 642. (May not be repeated under alternate prefix.)

**GEOL 652 Geoscience Partners in K-12 Education (4)**

*Prerequisite:* completion of at least one upper division course in your major field of study. Introduction to geoscience K-12 teaching and learning; examine understanding of geoscience, discuss science education literature, and analyze science lessons and student learning. Classwork, 2 units; field work, 2 units. (Cross listed with OCN/METR 652. May not be repeated under alternate prefix.)

**GEOL 693 Cooperative Education Program (6-12)**

*Prerequisites:* ENG 114, COMM 150, and consent of faculty of the Department of Geosciences. Intended for geology majors. Objectives are career development, occupational experience, and educational subsidy. Units do not count toward the degree. CR/NC grading only.

**GEOL 694 Cooperative Education in Geology (1-3)**

*Prerequisite:* AU 294 or consent of instructor. Intended for geology majors. Objectives are career development, occupational experience, and educational subsidy. Units do not count toward degree.

**GEOL 695 Field Methods in Geology (2)**

*Prerequisites:* GEOL 110, GEOL 460, and satisfactory standing in the major, or consent of instructor. Field methods: plotting features on topographic maps and aerial photographs, use of field instruments, mapping, and preparation of geologic reports. Laboratory and fieldwork.

**GEOL 697 Undergraduate Research (2)**

*Prerequisites:* senior standing and consent of instructor. Research activities, including literature review, project design, data collection and analysis.

**GEOL 698 Senior Thesis (2)**

*Prerequisite:* GEOL 697 (may be concurrent). Undergraduate research, to include a written report and oral presentation approved by the thesis committee.

**GEOL 699 Special Study (1-3)**

*Prerequisites:* approval of the faculty and the instructor. Special study in the laboratory, field, or library under the direction of a faculty member. The student must present a written report of the work accomplished to the faculty.

**Graduate Courses****GEOL 700 Graduate Seminar in Geosciences (2)**

*Prerequisite:* graduate standing. Introduction to the graduate program; discussion of interdisciplinary geoscience topics; format to include speakers and assigned readings. (Cross listed with METR/OCN 700. May not be repeated under alternate prefix.) Plus-minus letter grade only.

**GEOL 701 Research Methods in Geosciences (3)**

*Prerequisite:* GEOL/METR/OCN 700 or consent of instructor. Application of research methods: problem formulation, literature searches, proposal writing, scientific report writing, and oral presentation. Preparation of proposal for master's thesis. (Cross listed with METR/OCN 701. May not be repeated under alternate prefix.)

**GEOL 702 Quantitative Methods in Geosciences (3)**

*Prerequisites:* courses in basic statistics, calculus, and computer applications, or consent of instructor. Quantitative methods and computer techniques necessary for geoscience problem-solving. (Cross listed with METR/OCN 702. May not be repeated under alternate prefix.) Classwork, 2 units; laboratory and fieldwork, 1 unit.

**GEOL 741 Electron Microscopy (4)**

*Prerequisite:* graduate or senior standing, and consent of instructor. Cross listed with BIOL/CHEM 741. For course description, see BIOL 741. (May not be repeated under an alternate prefix.)

**GEOL 750 Geomorphology (4)**

*Prerequisites:* graduate or senior standing, and: GEOL 110; GEOL 125 or MATH 226; and PHYS 111/112 or PHYS 220/222; or consent of instructor. For course description, see GEOL 450. (Paired with GEOL 450. Students who have taken GEOL 450 may not take GEOL 750 for credit.)

**GEOL 754 Quaternary Climate and Soils (3)**

*Prerequisites:* graduate standing and GEOL 110 or consent of instructor. For course description, see GEOL 454. Paired with GEOL 454. Students who have completed GEOL 454 may not take GEOL 754 for credit. Classwork, 2 units; laboratory and fieldwork, 1 unit.

**GEOL 770 Neotectonics (3)**

*Prerequisites:* graduate or senior standing and GEOL 430 or consent of instructor. For course description, see GEOL 470. Paired with GEOL 470. Students who have completed GEOL 470 may not take GEOL 770 for credit. Classwork, 2 units; fieldwork, 1 unit.

**GEOL 775 Hydrogeology (4)**

*Prerequisites:* graduate or senior standing, and: GEOL 110; GEOL 125 or MATH 226; and PHYS 111/112 or PHYS 220/222; or upper division engineering course; or consent of instructor. For course description, see GEOL 475. Paired with GEOL 475. Students who have completed GEOL 475 may not take GEOL 775 for credit. Classwork, 3 units; laboratory and fieldwork, 1 unit.

**GEOL 776 Groundwater Contamination (3)**

*Prerequisites:* graduate or senior standing, and GEOL 775. For course description, see GEOL 476. Paired with GEOL 476. Students who have completed GEOL 476 may not take GEOL 776 for credit. Classwork, 2 units; laboratory and fieldwork, 1 unit.

**GEOL 780 Geochemistry (4)**

*Prerequisites:* GEOL 420, and MATH 226 or GEOL 125, or consent of instructor. Paired with GEOL 480. See GEOL 480 for course description. Students who have completed GEOL 480 may not take GEOL 780 for credit.

**GEOL 785 Ore Deposits (4)**

*Prerequisite:* graduate standing and GEOL 420 or consent of instructor. Paired with GEOL 485. For course description, see GEOL 485. Students who have completed GEOL 485 may not take GEOL 785 for credit.

**GEOL 792 Our Dynamic Classroom (1)**

*Prerequisite:* graduate standing or consent of instructor. Teaching and Learning Community. Exploration of innovative pedagogical techniques and integrating laboratory and lecture components for introductory geosciences courses. (Cross listed with METR/OCN 792. May not be repeated under alternate prefix.) May be repeated under same prefix for 3 units for degree credit. Plus-minus letter grade only.

**GEOL 795 Selected Topics in the Geosciences (1-3)**

*Prerequisite:* graduate status or consent of instructor. Selected topics in the geosciences. Topic to be specified in Class Schedule. (May be repeated for a maximum of 12 units when topics vary.)

**GEOL 896 Directed Reading in the Geosciences (3)**

*Prerequisite:* graduate status or consent of adviser. Supervised literature research in a specific area chosen on the basis of individual student need. Readings, tutorial discussion, and research report or creative projects.

**GEOL 897 Research Project (1-3)**

*Prerequisites:* graduate status, and GEOL/METR 700 and 701. Thesis research incorporates all aspects of investigative studies from data collection to data analysis. May be repeated for a total of 6 units.

**GEOL 898 Master's Thesis (3)**

*Prerequisites:* graduate status, and GEOL/METR 700, 701, and 702. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**GER 899 Special Study (1-3)**

*Prerequisites:* graduate status and consent of adviser. Special study in the laboratory or field under the direction of a faculty member. Student must present a detailed written report of the work accomplished to the department. May be repeated for a total of 3 units.

**GERMAN***Undergraduate Courses***GER 101 First Semester German (5) [GE]**

Understanding, speaking, reading, and writing German. Emphasis on the spoken language. (Page reference for the Department of Foreign Language statement can be found in the Index.)

**GER 102 Second Semester German (5) [GE]**

*Prerequisite:* GER 101 or equivalent. Continuation of first semester German.

**GER 206 Intermediate German Conversation (3) [GE]**

*Prerequisites:* GER 101 and 102 or equivalent. Intensive listening and speaking practice. Group discussions based on texts and videos. Skits and other presentations.

**GER 207 Intermediate German (3) [GE]**

*Prerequisite:* GER 102 or equivalent. Listening, speaking, reading, and writing at the intermediate level. Group projects based on contemporary issues.

**GER 301 German in Review (3) [GE]**

*Prerequisites:* GER 206 and 207 or equivalent. Review of structure and speech patterns. Compositions, oral presentations, and group discussions based on short stories, newspaper articles, contemporary films, and other cultural topics.

**GER 330 German Language and Society (3) [GE]**

*Prerequisites:* GER 325 and 326 or consent of instructor. Exploration of a wide spectrum of linguistic issues and approaches, illustrated through the analysis of the forms, functions and uses of contemporary German.

**GER 335 German Through Cinema (3)**

*Prerequisites:* GER 206 and 207 or equivalent or consent of instructor. Canonical works of German cinema to increase students' language competence in receptive and productive skills. Development of ideas in writing activities to focus also on vocabulary, grammar, and style.

**GER 341 Intensive Language Practice and Analysis (3) [GE]**

*Prerequisite:* GER 305 or equivalent. Systematic and intensive study of written and oral expression. Designed for advanced students of German. May be repeated for a total of 9 units.

**GER 350 Translation Workshop (3) [GE]**

*Prerequisite:* GER 206 and 207 or equivalent. Translating written and spoken texts, using German or English as source languages.

**GER 401 German Culture and Civilization I (3) [GE]**

*Prerequisite:* GER 206 and 207 or equivalent. Highlights of German culture and civilization from the beginning to 1918.

**GER 502 Contemporary Germany (3) [GE]**

*Prerequisite:* GER 301 or equivalent or consent of instructor. Germany today: its achievement, challenges, problems, potential dangers, and important developments, trends, issues, figures that have shaped the nation. Paired with GER 802. Students who have completed GER 502 may not take GER 802 for credit.

**GER 510 German Literature I (3) [GE]**

*Prerequisite:* GER 206 and 207 or equivalent. Literary development from the Middle Ages through the Age of Goethe.

**GER 511 German Literature II (3) [GE]**

*Prerequisite:* GER 206 and 207 or equivalent. Literary development from early 19th century to the present.

**GER 556 19th and 20th Century German Plays (3) [GE]**

*Prerequisites:* GER 510 and GER 511 or equivalents. Major works of representative playwrights of the 19th and 20th centuries. Paired with GER 856. Students who have completed GER 556 may not take GER 856 for credit.

**GER 613 Weimar Literature in English (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Introduction to Weimar Republic and its representation in exemplary works of literature in English translation. [Taught in English.] Paired with GER 813. Students who have completed GER 613 may not take GER 813 for credit.

**GER 617 The Holocaust and Postwar Germany Taught in English (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Holocaust in Postwar Germany as seen in exemplary works of literature, historical documents and Nuremberg trials. [Taught in English.]

**GER 699 Special Study (1-3)**

*Prerequisites:* consent of department chair and instructor. Written projects requiring critical analysis and interpretation of linguistic or literary problems. Material adapted to individual needs and interests. May be repeated.

*Graduate Courses*

*Prerequisite for each graduate course in German:* admission to German program or consent of instructor.

**GER 741 The Holocaust and Postwar Germany Taught in English (3)**

*Prerequisite:* graduate standing or consent of instructor. The Holocaust in Postwar Germany as seen in exemplary works of literature, historical documents and Nuremberg trials. Plus-minus letter grade only. (Taught in English) (Cross listed with HIST/JS 741. May not be repeated under alternate prefix.)

**GER 745 Seminar in the Development of the German Language (3)**

*Prerequisite:* GER 325 or equivalent. Aspects of modern German clarified through the study of its origin and evolution.

**GER 786 Great Theorists: Walter Benjamin (3)**

*Prerequisite:* graduate standing or consent of instructor. Cross listed with PLSI 786/HUM 725. For course description, see PLSI 786. (May not be repeated under alternate prefix.)

**GER 802 Contemporary Germany (3)**

*Prerequisites:* admission to German M.A. program, GER 301 or equivalent, or consent of instructor. For course description, see GER 502. Paired with GER 502. Students who have completed GER 802 may not take GER 502 for credit.



**GER 813 Weimar Literature in English (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. For course description, see GER 613. Paired with GER 613. Students who have completed GER 813 may not take GER 613 for credit.

**GER 814 Crisis and Quest in English (3)**

*Prerequisites:* admission to German M.A. program or consent of instructor. Works by Kafka, Rilke, Musil, and Heidegger which reflect deep changes, social dilemmas, and new ethics in the 20th century. [Taught in English.]

**GER 830 Die Deutsche Romantik (3)**

*Prerequisites:* admission to German M.A. program, GER 301, or consent of instructor. Themes, symbols, and structures in German romantic writers and their position within the larger context of their times and modern thought. A voyage into the self and out into the cosmos.

**GER 831 Seminar in Literary Movements or Periods (3)**

*Topic to be specified in Class Schedule.* German literary movements or literary periods. May be repeated when movements or periods vary.

**GER 832 Idealist Tradition in German Literature (3)**

*Prerequisites:* admission to German M.A. program or consent of instructor. Literary and philosophical idealism and Weimar Classicism in Germany from 1760 to 1832 (Sturm und Drang).

**GER 856 19th and 20th Century German Plays (3)**

*Prerequisites:* GER 510 and GER 511 or equivalents. For course description, see GER 556. Paired with GER 556. Students who have completed GER 856 may not take GER 556 for credit.

**GER 899 Special Study (1-3)**

*Prerequisites:* graduate status in German; consent of graduate major adviser and supervising faculty member. Study is planned, developed, and completed under the direction of a member of the departmental faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**GERONTOLOGY***Undergraduate Courses***GRN 500 Gerontology: An Interdisciplinary Perspective (3) [GE]**

Concepts and issues in gerontology; processes, problems, and challenges of aging as related to other disciplines, integrating and emphasizing research findings.

**GRN 510 Death and Dying in Contemporary Society (3) [GE]**

Cross listed with NURS 500. For course description, see NURS 500. (May not be repeated under alternate prefix.)

**GRN 520 Profession of Gerontology (3)**

*Prerequisite:* upper division standing. Academic exploration of gerontology; insights into where students might fit into the field; understanding traditional/non-traditional career paths; knowledge and skills sets required of service professionals for the aged.

**GRN 575 Applying Gerontology for our Aging Parents (3)**

*Prerequisite:* GRN 500 or consent of instructor. Issues of aging faced by families, communities, and our graying society.

*Graduate Courses***GRN 705 Aging in a Multidimensional Context (3)**

*Prerequisite:* consent of instructor. Examination of theories and research on aging: interpersonal and structural dimensions of aging; scope, concepts, and approaches in the field.

**GRN 710 Aging Processes: Health and Human Services (3)**

Examination of the biomedical and physiological processes and theories of aging. Implications on health and human services for the elderly of diverse backgrounds, cultures, and ethnicities.

**GRN 715 Age and Social Policy Analysis (3)**

Exploration of the variety of public and private agencies and businesses, including entitlement programs designed to serve an aging population. Examine a variety of models and frameworks for policy analysis, with attention to global aging issues.

**GRN 725 Aging and Diversity (3)**

Multicultural aging issues; psychological aspects of aging for ethnic/racial groups within the U.S. Cultural competence, cohort variations, health differentials, life expectancy/longevity, theoretical perspectives, and methodological implications.

**GRN 735 Ethical and Legal Issues in Aging and Social Services (3)**

Ethical dilemmas and legal issues as they pertain to the professional practice of gerontology and the delivery of social services to the elderly.

**GRN 740 Nursing Home Administration (3)**

*Prerequisite:* consent of instructor. Comprehensive multidimensional study of regulations (finance, human resources, leadership, environmental, resident care, quality of life) for nursing home administrators. Emphasis on OBRA (federal regulations) and Title 22 (state regulations) in preparation for Nursing Home Administrator licensure examination.

**GRN 745 Assisted Living Administration (3)**

*Prerequisite:* consent of instructor. Extensive and thorough examination of regulations (business and financial, environmental, human resources, organizational, resident care management) for assisted living and residential care administrators. Emphasis on Title 22 (state regulations) in preparation for RCFE Administrator certification examination.

**GRN 750 Home Care Management (3)**

*Prerequisite:* consent of instructor. Design and delivery of home care services to the elderly in the community. Role of home health care professionals and their impact on services. Identification of techniques for providing home care services.

**GRN 760 Research Methods in Gerontology (3)**

*Prerequisites:* introductory statistics and consent of instructor. Quantitative and qualitative research designs and methods, data gathering techniques, measurement and data analysis and interpretation. Applications of research methods to studies in aging, including descriptive and comparative research, program evaluations, and needs assessments.

**GRN 765 Aging and Continuum of Care (3)**

Overview of continuum of care; emphasis on human diversity, quality of care, and quality of life. Concepts, functions, issues, and skills associated with home and community-based services, adult day care, assisted living, nursing facilities, and hospice care.

**GRN 820 Age and Social Relations (3)**

Aging in a social context. Diversity and heterogeneity in later life social interactions. Interweaving of growth and decline in the context of multiple social relations.

**GRN 838 Gerontology Seminar (3)**

*Prerequisite:* Enrollment in gerontology program or consent of instructor. Group process in support of gerontology internship, learning contract and qualitative methods; fieldwork experience and techniques; ethics and problem-solving. May be repeated for a total of 6 units.

**GRN 839 Gerontology Internship (3)**

Field internship in cooperation with a private/public profit or non-profit organization enabling students to acquire competencies and experiences required for professional responsibilities. May be repeated for a total of 6 units.

**GRN 851 International Aging (3)**

Cross listed with S W 851. See S W 851 for course description. (May not be repeated under an alternate prefix.)

**GRN 890 Integrative Seminar (3)**

Capstone to demonstrate knowledge and skills in problem-solving, decision-making, critical thinking, and cooperative and collaborative communications.

**GRN 895 Field Study (3)**

*Prerequisite:* consent of gerontology adviser(s). Field study or applied research resulting in completed written work that as a minimum includes project's significance, objectives, methodology, conclusions/recommendations. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**GRN 897 Gerontology Research (3)**

*Prerequisites:* classified graduate status and consent of graduate adviser. Independent/original research under faculty supervision. Continuous enrollment required for all students yet to complete the master's thesis or research project. May be repeated, but cannot be used more than once for degree credit.

**GRN 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the Master of Arts and approval of graduate major adviser. An intensive, systematic study of a significant topic or problem in gerontology. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**GRN 899 Special Study (3)**

Pursuit of a topic under the supervision of a faculty adviser/instructor. May be repeated for a total of 6 units.

**GLOBAL PEACE STUDIES***Undergraduate Courses***GPS 315 Introduction to Global Peace Studies (3) [GE]**

*Prerequisites:* ENG 214 and upper division standing. The field of peace studies and the integrative questions which must be answered to achieve a coherent perspective on world peace. National and international issues, the environment, philosophy, literature, arts, media, and education. (Cross listed with I R/PHIL 315. May not be repeated under alternate prefix.)

**GPS 375 Peace Law and Human Rights in the U.S. (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Law of peace from the local to the international level; international treaties, covenants, statutes of Congress, legislatures, and city councils, criminal indictments, court affidavits, judges opinions, jury instructions, and relevant articles. (Cross listed with PHIL 375. May not be repeated under alternate prefix.)

**GPS 699 Special Study (1-3)**

*Prerequisite:* ENG 114 or equivalent. Individual, intensive work under supervision, culminating in a paper or other project. May be repeated for a total of 6 units.

**GREEK***Undergraduate Courses***GRE 101 Elementary Ancient Greek (5) [GE]**

Greek language and grammar with emphasis on the rapid readings of graded Attic prose. Exercises in the writing of Greek sentences. Groundwork for the great Greek masters of poetry and prose in the original language.

**GRE 202 Intermediate Ancient Greek (5) [GE]**

*Prerequisite:* GRE 101 or equivalent. Understanding, reading, and writing of ancient Greek at the intermediate level. Reading selections from a variety of ancient Greek prose and poetry.

**GRE 430 Greek Oratory I (3)**

*Prerequisite:* reading knowledge of ancient Greek. Translation and analysis of Greek speeches and rhetorical works, with a focus on Lysias and Demosthenes. Discussion of historical context. (Paired with GRE 730. Students who have completed GRE 430 may not take GRE 730 for credit.)

**GRE 431 Greek Oratory II (3)**

*Prerequisite:* reading knowledge of ancient Greek. Translation and analysis of Greek speeches and rhetorical works, with a focus on Gorgias and Isocrates. Discussion of historical content. (Paired with GRE 731. Students who have completed GRE 741 may not take GRE 431 for credit.)

**GRE 435 Greek Historiography I (3)**

*Prerequisite:* reading knowledge of ancient Greek. Translation and analysis of Greek historical works, with a focus on Herodotus and Xenophon. Discussion of historical context. (Paired with GRE 735. Students who have completed GRE 735 may not take GRE 435 for credit.)

**GRE 436 Greek Historiography II (3)**

*Prerequisite:* reading knowledge of ancient Greek. Translation and analysis of Greek historical works, with a focus on Thucydides and Polybius. Discussion of historical context. (Paired with GRE 736. Students who have completed GRE 736 may not take GRE 436 for credit.)

**GRE 440 Greek Epic I (3)**

*Prerequisite:* reading knowledge of ancient Greek. Translation and analysis of archaic epic, with a focus on Homer's Iliad and Hesiod's Works and Days. Discussion of formal features, such as meter and dialect, and social and performative context. (Paired with GRE 740. Students who complete GRE 440 may not take GRE 740 for credit.)

**GRE 445 Greek Drama I (3)**

*Prerequisite:* reading knowledge of ancient Greek. Translation and analysis of classical Greek drama, with a focus Euripides and Aristophanes. Discussion of historical context. (Paired with GRE 745. Students who have completed GRE 745 may not take GRE 445 for credit.)

**GRE 446 Greek Drama II (3)**

*Prerequisite:* reading knowledge of ancient Greek. Translation and analysis of classical Greek drama, with a focus on Aeschylus and Sophocles. Discussion of historical context. (Paired with GRE 746. Students who complete GRE 746 may not take GRE 446 for credit.)

**GRE 450 Greek Philosophy I (3)**

*Prerequisite:* reading knowledge of ancient Greek. Translation and analysis of Greek philosophical texts, with a focus on the pre-Socratics, the sophists, and/or the early and middle works of Plato. (Paired with GRE 750. Students who have completed GRE 750 may not take GRE 450 for credit.)

**GRE 455 Greek Lyric Poetry I (3)**

*Prerequisite:* Reading knowledge of ancient Greek. Translation and analysis of archaic lyric poetry, with a focus on genres of lambos and elegy. Discussion of formal features, such as meter and dialect, and social and performative context. (Paired with GRE 755. Students who have completed GRE 455 may not take GRE 755 for credit.)

**GRE 699 Special Study (1-3)**

Projects requiring critical study and analysis of advanced material adapted to individual needs and interests. May be repeated.

*Graduate Courses***GRE 730 Greek Oratory I (3)**

*Prerequisite:* reading knowledge of ancient Greek. For course description, see GRE 430. Paired with GRE 430. Students who have completed GRE 730 may not take GRE 430 for credit.

**GRE 731 Greek Oratory II (3)**

*Prerequisite:* reading knowledge of ancient Greek. Paired with GRE 431. For course description, see GRE 431. Students who have completed GRE 431 may not take GRE 731 for credit.

**GRE 735 Greek Historiography I (3)**

*Prerequisite:* reading knowledge of ancient Greek. Paired with GRE 435. For course description, see GRE 435. Students who have completed GRE 435 may not take GRE 735 for credit.

**GRE 736 Greek Historiography II (3)**

*Prerequisite:* reading knowledge of ancient Greek. Paired with GRE 436. For course description, see GRE 436. Students who complete GRE 436 may not take GRE 736 for credit.

**GRE 740 Greek Epic I (3)**

*Prerequisite:* reading knowledge of ancient Greek. For course description, see GRE 440. Paired with GRE 440. Students who have completed GRE 740 may not take GRE 440 for credit.

**GRE 745 Greek Drama I (3)**

*Prerequisite:* reading knowledge of ancient Greek. For course description, see GRE 445. Paired with GRE 445. Students who have completed GRE 445 may not take GRE 745 for credit.

**GRE 746 Greek Drama II (3)**

*Prerequisite:* reading knowledge of ancient Greek. Paired with GRE 446. For course description, see GRE 446. Students who have completed GRE 446 may not take GRE 746 for credit.

**GRE 750 Greek Philosophy I (3)**

*Prerequisite:* reading knowledge of ancient Greek. For course description, see GRE 450. Paired with GRE 450. Students who have completed GRE 450 may not take GRE 750 for credit.

**GRE 755 Greek Lyric Poetry I (3)**

*Prerequisite:* reading knowledge of ancient Greek. For course description, see GRE 455. Paired with GRE 455. Students who have completed GRE 755 may not take GRE 455 for credit.

**GRE 899 Special Study (1-3)**

*Prerequisites:* advanced reading knowledge of Greek and consent of supervising faculty member. Reading of an ancient Greek author or authors, under the supervision of a member of the Classics faculty. Enrollment by petition. May be repeated for a total of 6 units. *Prerequisite for each graduate course in Greek: intermediate Greek or equivalent.*

**HEALTH EDUCATION***Undergraduate Courses***H ED 120 Educational Justice, Health Equity, and Academic Success (3) [GE]**

The first of four sequenced courses for the Metropolitan Health Academy (MHA). Focus on educational justice, public health, and social justice. General education skills -- writing, oral communication, critical thinking, and quantitative reasoning -- will be systematically reinforced.

**H ED 130 Health, Justice and Communities (3)**

Focus on economic justice, environmental justice, and oppression as relates to public health at organizational and institutional levels. Reinforces general education skills and supports student learning using a systematic, structured model of student success strategies.

**H ED 200 Global Health (3)**

Health around the world, including economic, political, and sociocultural factors that influence community health and health care. Linkages between health, human rights, the environment, and a colonial legacy.

**H ED 221 Health and Social Justice - Burning Issues, Taking Action (3) [GE]**

Social and economic injustices as root causes of the uneven distribution of disease. Current health issues, the process for influencing policy, and the skills to effectively advocate for health and social justice.

**H ED 231 Health Justice in Social Policy (3)**

Explore role of social and economic injustices. Focus on social policy as determinant of health justice. Analyze policy and advocate for change in communities. Explore importance of community in creating social change.

**H ED 280 Empowering Poor Families to Graduate Out of Poverty (3)**

College success course (self-directed). Consciousness and critical thinking skills. Participation in fieldwork addressing social justice related to wealth/poverty-health-human relation constructs/leadership in areas of education and community health. May be repeated for a total of 6 units. (Cross listed with COUN 280. May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**H ED 290 Promoting Positive Health (3)**

Embodied learning to promote physical, mental, spiritual and community health through yoga, dance, drawing, writing, collage, poetry and photography. Multicultural experience, active creative participation and intellectual pursuit as tools to improve flexibility and understanding, and to unlearn and heal oppression. (Cross listed with HH 290. May not be repeated under alternate prefix.)

**H ED 305 Critical History of Public Health in the United States (3)**

*Prerequisite:* upper division standing or consent of instructor. Major issues, events, and historical figures in public health in the United States from the colonial period to the present. Emphasis on socio-cultural and political aspects of infectious and chronic diseases, epidemics, health disparities, public health reforms and advances

**H ED 310 Health in Society (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Major health issues/problems of individual and society; prevention and the validity of current health beliefs. Nutrition, mental health, sexuality, environmental health, communicable and chronic diseases, consumerism, stress, aging.

**H ED 312 Consumer Health (3)**

*Prerequisite:* upper division standing or consent of instructor. Health services and products important to individuals and family members; selection of medical advisers, insurance, agencies; quackery and faddism, budgets, health careers.

**H ED 315 Drugs and Society (3) [GE]**

*Prerequisite:* upper division standing. Physical, psychological, and sociological aspects of drug use and misuse in contemporary society, including examinations of the drug war, the prison industrial complex, community prevention and control.

**H ED 320 Contemporary Sexuality (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Information about sexuality; its impact on interpersonal relationships. Anatomy and physiology; psychosexual development, sex roles, pregnancy, childbirth, parenting, contraception, sexually transmitted diseases, sexual behavior, myths, misconceptions. Sexual value systems and communication skills.

**H ED 370 Current Health Issues (1-3)**

*Topic to be specified in Class Schedule.* May be repeated for a total of 9 units when topics vary.

**H ED 400 The Health Education Profession - GWAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C or better, and completion of GE critical thinking requirement. Foundations of public health and health education including qualifications and professional preparation of the public health practitioner. Strong emphasis on professional and scholarly writing and analytical skills. (ABC/NC grading only.)

**H ED 410 Organization and Function of Health Services (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Health care and delivery of services: identification and function of governmental, private, and voluntary organizations; programs in health protection and promotion at local, state, and national levels. Community activities required.

**H ED 414 Women's Health--Problems and Issues (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Issues and problems confronting women: mental health, sexuality, parenting, nutrition, exercise, rape and battery, aging, and occupational health. Politics of health care and the self-help movement.

**H ED 415 Health Aspects of Aging (3) [GE]**

*Prerequisites:* upper division standing and consent of instructor. Physical, social, and psychological aspects of aging. Health concerns of the elderly: medical care, long-term care, nutrition, death and dying, crime and elder abuse, medicare-medicaid. Visitations and communications with older adults.

**H ED 417 AIDS: Contemporary Health Crisis (3) [GE]**

*Prerequisite:* completion of critical thinking requirement. AIDS--acquired immune deficiency syndrome--from a variety of perspectives. Physical/medical, emotional, psychosocial, political, economic, and cultural components of the disease. Prevention and educational strategies.

**H ED 420 Epidemiology (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Disease patterns in the human population, how diseases are distributed, what factors are associated with them. Etiology, recognition, transmission, prevention, and control of health disorders and communicable and chronic diseases.

**H ED 425 Introduction to Research and Statistics in Health (3)**

*Prerequisite:* upper division standing or consent of instructor. Quantitative methods for elementary statistical analysis in research and evaluation in the health field.

**H ED 430 Community Health Education Theory (3)**

*Prerequisites:* H ED 400GW with a grade of C or better. Theoretical frameworks, concepts, and methods which form the basis for community health education; communication and group process; social, educational, behavioral and attitudinal change.

**H ED 431 Program Planning, Implementation, and Evaluation (3)**

*Prerequisites:* H ED 425 and H ED 430 with grades of C or better; successful completion of JEPET or ENG 414 or equivalent. Senior course and professional preparation in health education program planning, implementation, and evaluation.

**H ED 434 Geographies of Health and Health Care (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with GEOG 434. For course description, see GEOG 434. (May not be repeated under alternate prefix.)

**H ED 450 Policy Issues in Health Education (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Selected local, state, national, and international health policy issues. Methods of education and socio-political intervention.

**H ED 455 Community Organizing and Community Building for Health (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Dialogue, action and reflection on community building, non-violence, cultural humility and social engagement. Skills in leadership development, empowerment, and experiential learning. Passion for social justice and human rights. Photovoice, media literacy/advocacy taught as tools for organizing. [CSL may be available; consult index for page reference.]

**H ED 480 Fieldwork and Reflective Seminar (9)**

*Prerequisites:* H ED 430 and H ED 431 with grades of C or better, or consent of instructor. Directed experiences in community health education through 20 hours per week of fieldwork in health departments, voluntary health agencies, and other community health services. (Health Education majors must receive a C or better.)

**H ED 500 Values Clarification in Sexuality (3) [GE]**

*Prerequisites:* BIOL 330 or H ED 320 or CFS 321 or equivalent. Theory and techniques of values clarification; the content and power of values as they relate to the many aspects of sexuality. (Cross listed with XSX 500. May not be repeated under alternate prefix.)

**H ED 520 Race, Class, Gender and Health Promotion (3) [GE]**

*Prerequisite:* upper division standing. Health status of ethnic, gender, and sexual orientation communities in the U.S. Impact of personal and cultural beliefs, lifestyle/behavior patterns, racism, poverty, sexism, homophobia and health care on individual and group health. Effective health promotion strategies are explored.

**H ED 527 Documentary of Social Justice and Health (6)**

*Prerequisite:* upper division standing and consent of instructor. Cross listed with CINE 527. For course description, see CINE 527. (May not be repeated under alternate prefix.)

**H ED 630 Elementary School Health (3)**

*Prerequisite:* senior standing or credential candidate. Research related to personal, family, and community health for children and youth: alcohol, tobacco, drugs, and venereal disease. Health practices and procedures: philosophy, problems, emergency care, school lunch, safety, and environment. CR/NC grading only.

**H ED 635 Secondary School Health (1)**

*Prerequisite:* senior standing or credential candidate. School health programs; the teacher's role and responsibilities toward the promotion and maintenance of the health of the secondary school student through health services, environment, and comprehensive health education. CR/NC grading only.

**H ED 640 Structural Inequities and Public Health (3) [GE]**

*Prerequisite:* upper division standing. On-line service learning course designed to broaden students understanding of wealth distribution, social status, and political power as determinants of health. Analysis of research demonstrating the relationships between health, education, and socio-economic status.

**H ED 650 Training and Education Processes in Public Health (3)**

*Prerequisite:* upper division or graduate standing. Philosophical underpinnings, theoretical approaches, and practical applications of being a health educator, viz., providing trainings and educational interventions. Training and educational frameworks, assess learners' needs, objectives and evaluation.

**H ED 655 Environmental Health (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Environmental factors impacting health, including the consequences of natural and human-made hazards. Scientific models and socio-political frameworks that analyze these topics. Assessment of contemporary health issues. (Paired with H ED 855. Students who have completed H ED 855 may not take H ED 655 for credit.)

**H ED 660 Developing Healthy Youth in Schools and Communities (3)**

*Prerequisite:* upper division standing. Child and adolescent health and well-being, school and community-based approaches to prevention and intervention, and frameworks such as youth development, youth assets/resiliency, and the ecological model of health.

**H ED 665 Community Based Participatory Research in Public Health (3)**

*Prerequisite:* upper division standing or consent of instructor. Theories, principles, and strategies of Community Based Participatory Research (CBPR). Case studies presented.

**H ED 670 Principles of Peer Health Education (3)**

*Prerequisite:* prior consent of instructor. Concepts of positive health promotion and prevention; training in helping, and behavior change skills. Students volunteer 3 hours weekly in Student Health Center plus class meetings.

**H ED 671 Practice of Peer Health Education (3)**

*Prerequisite:* H ED 670. Experience providing health risk assessment, consulting with clients, staffing resource center, conducting workshops. Work 4 hours per week in Student Health Center plus supervision seminar. [CSL may be available; consult index for page reference.]

**H ED 685 Projects in the Teaching of Health Education (1-4)**

*Prerequisites:* advanced undergraduate standing in health education and approval of supervising instructor and department/program; grade of B or better in course in which student will be instructional aide. Teaching experiences in the health education discipline through assigned instructional projects in a classroom and under the guidance of a member of the faculty. Training in pedagogical principles including supervised classroom teaching activities. May be repeated once for a total of 6 units.

**H ED 699 Special Study (1-3)**

*Prerequisites:* senior standing and consent of instructor. Study of a particular problem under the direction of a member of the department. May be repeated for a total of 9 units.

*Graduate Courses***H ED 810 Public Health and Principles of Community Organizing (3)**

Theoretical overview and practical application of community-based public health. Non-violent social action, community diagnosis, social networks, primary prevention, media advocacy/literacy.

**H ED 811 Community Health Education ePortfolio (1)**

Development of a health education portfolio chronicling the products produced during the MPH program with the skills required for Master Trained Health Education Professionals. Plus-minus letter grade, CR/NC allowed.

**H ED 811 Community Health Education ePortfolio (1)**

Development of a health education portfolio chronicling the products produced during the MPH program with the skills required for Master Trained Health Education Professionals. Plus-minus letter grade, CR/NC allowed.

**H ED 815 Theories of Social Behavioral Change in Community Health Education (3)**

Theories relevant to health education practice. Critical analysis of theories and their development, contextualization, and practice. Utilization of these theories in practical applications.

**H ED 820 Community Health Assessment (3)**

*Prerequisite:* H ED 810. Must be taken concurrently with H ED 821 and 890. Assessment process using applied research methods which empower communities to create programs that respond to their health challenges, concerns, and strengths.

**H ED 821 Community Health Assessment Practice (2)**

*Prerequisite:* H ED 810. Concurrent enrollment in H ED 820 is required. Needs assessment process in the areas of stakeholder analysis, development of community planning team, development of statistical profiles, data collection methods, and community mapping. [CSL may be available; consult index for page reference.]

**H ED 822 Advanced Community Health Assessment Practice (3)**

*Prerequisite:* H ED 820 and H ED 821. Theory and practice in the implementation of a community health assessment. Students will continue to build a solid understanding of working in a team to implement a community health assessment. [CSL may be available; consult index for page reference.]

**H ED 825 Epidemiology (3)**

*Prerequisites:* H ED 828 & 829 with grade of B or better. An introductory and comprehensive survey of epidemiological principles and methods. A history and overview of the field, including contemporary case studies, along with an examination of the methods used to study disease distributions in diverse human populations. Plus-minus letter grade only.

**H ED 828 Biostatistics Lab (1)**

*Prerequisite:* Prior course in inferential statistics. Review and apply bio-statistical concepts and procedures typically employed in public health research.

**H ED 829 Biostatistics and Public Health (3)**

Introduction to basic statistical techniques, concepts, and tests commonly used in public health. Understanding of data types and data distribution. Critical understanding of the use of statistics in journal articles.

**H ED 830 Program Planning for Community Change (3)**

*Prerequisites:* H ED 810, 820, 821; grade of B or better in H ED 820 and 821. Must be taken concurrently with H ED 831. Practical application of CHE empowerment theories. Acquisition of skills in problem definition, program design, development goals and objectives, timelines, staffing plans, and evaluation design. Emphasis on grantsmanship.

**H ED 831 Program Planning Practice (2)**

*Prerequisite:* H ED 820. Concurrent enrollment in HED 830 is required. Implementation of design and plan for needs assessment. Practice of theory and knowledge through focus groups, key informant interviews and surveys. [CSL may be available; consult index for page reference.]

**H ED 835 Public Health Policy (3)**

Course is designed to help students better understand the political environment in which public health operates and how to work within it. Features discussions on media advocacy and on ethics as applied to public health and politics.

**H ED 840 Program Evaluation (3)**

*Prerequisites:* H ED 810, 820, 830, and 831; grade of B or better in H ED 830 and 831. Must be taken concurrently with H ED 841 and H ED 890. Concepts and methods of program evaluation. Development of the skills necessary to assess published evaluation research and to apply technical evaluation skills in professional practice.

**H ED 855 Environmental Health (3)**

Paired with H ED 655. See H ED 655 for course description. Students who have completed H ED 655 may not take H ED 855 for credit.

**H ED 884 Seminar in Applied Community Health Education Research (2)**

Designed to prepare students in the Master of Public Health program for their culminating experience projects. Presentations on selected topics such as online searches, writing literary reviews, effective reading of research articles, statistical analysis, etc. Plus-minus letter grade only.

**H ED 885 Advanced Seminar in Applied Communication Health Education Research (1)**

*Prerequisite:* H ED 884. Continued preparation for Master of Public Health culminating experience projects. Class meetings will include brief presentations on selected topics. Plus-minus letter grade only.

**H ED 890 Master of Public Health Seminar (3)**

This seminar is the capstone experience for Track 1 students in the final semester of the MPH program, and proposal development experience for Track 2 students; provide integration guidance, instruments, methods, and literature review preparation and process. Plus-minus letter grade only. May be repeated for a total of 6 units.

**H ED 895 Applied Research Project in Health Education (3)**

Requires major written documentation of the project and oral review by the department graduate committee. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only, RP.

**H ED 899 Special Study (1-3)**

*Prerequisite:* consent of health education graduate adviser. Study is planned, developed, and completed under the direction of a member of the department. Open only to graduate students of demonstrated ability to do independent work. Enrollment by petition. May be repeated for a total of 12 units.

**HEALTH AND HUMAN SERVICES***Undergraduate Courses***HHS 101 Introduction to Health and Human Services (1-2)**

Success skills and learning strategies for freshmen. Review of academic preparedness, strengths and areas for development to create a plan leading to career opportunities. Personal and interpersonal behavior required for professional interactions. (Credit may be earned in HHS 101 for a total of 2 units only.)

**HEBREW***Undergraduate Courses***HEBR 151 First Semester Modern Hebrew (3) [GE]**

Cross listed with JS 151. For course description, see JS 151. (May not be repeated under alternate prefix.)

**HEBR 152 Second Semester Modern Hebrew (3) [GE]**

*Prerequisite:* HEBR/JS 151 or equivalent. Cross listed with JS 152. For course description, see JS 152. (May not be repeated under alternate prefix.)

**HEBR 201 Third Semester Modern Hebrew (3) [GE]**

*Prerequisite:* HEBR/JS 152 or equivalent. Cross listed with JS 201. For course description, see JS 201. (May not be repeated under alternate prefix.)

**HEBR 202 Fourth Semester Modern Hebrew (3) [GE]**

*Prerequisite:* HEBR/JS 201 or equivalent. Cross listed with JS 202. For course description, see JS 202. (May not be repeated under alternate prefix.)

**HISTORY***Undergraduate Courses***HIST 110 History of Western Civilization I (3) [GE]**

The growth of the political, economic, and cultural institutions of the Western World from the beginnings to the Renaissance.

**HIST 111 History of Western Civilization II (3) [GE]**

From the Renaissance to the present.

**HIST 114 World History to 1500 (3) [GE]**

The world's civilizations from 4500 B.C.E. to 1500 C.E.

**HIST 115 World History Since 1500 (3) [GE]**

The world's civilizations from 1500 C.E. to the present.

**HIST 120 History of the U.S. through Reconstruction (3) [USH]**

History of the U.S. from Colonial times to the end of Reconstruction and the beginnings of the Industrial Age. Political, constitutional, economic, and cultural aspects of American life as they developed both nationally and locally. (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**HIST 121 History of the U.S. since Reconstruction (3) [USH]**

History of the U.S. from the end of Reconstruction to the present. Political, constitutional, economic, and cultural aspects of American life as they developed both nationally and locally. (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**HIST 130 Survey of U.S. History for Foreign Students (3) [USH]**

*Prerequisite:* Not open to students who have had US history in a US high school. The American people from colonial times to the present; the development of American political, social, and economic institutions. (Fulfills the U.S. History component of the U.S. History and Government Requirement)

*Because history courses numbered 300 and above include significant writing requirements, students must complete ENG 214 or an approved equivalent before enrolling in them. Students enrolled in upper division history courses should have upper division standing (completion of 60 units) or consent of the instructor.*

**HIST 300 Seminar in Historical Analysis - GWAR (3)**

*Prerequisites:* ENG 214 or equivalent with a grade of C or better; upper division standing or consent of instructor. The nature and sources of historical evidence and the tools and techniques of historical writing and interpretation; the philosophy of history. (ABC/NC grading only.)

**HIST 302 Doing Local History (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Learning the methodological skills of doing local history: the use of manuscript collections, family letters and diaries, oral history interviewing techniques, and finding little known historical collections.

**HIST 313 Comparative History of Love and Sexuality (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Development of and changes in the attitudes and practices surrounding love and sexuality on selected western and non-western cultures from antiquity to the present.

**HIST 317 The Holocaust and Genocide (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Process and conditions which led to the harassment, expulsion, and extermination of the Jews during World War II; new information about the concentration camp system. (Cross listed with JS 317. May not be repeated under alternate prefix.)

**HIST 321 Hellenistic Greece (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Political, institutional, and cultural history of Greece from the end of the 5th century to 146 B.C.E.

**HIST 322 The Roman Republic (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Political, institutional, and cultural history of Rome from the outbreak of the Civil War of 49 B.C.E. to the council of Nicaea (325 C.E.).

**HIST 323 Imperial Rome (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Political, institutional, and cultural history of Rome from the outbreak of the Civil War of 49 B.C.E. to the council of Nicaea (325 C.E.).

**HIST 325 Late Antiquity (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Political, social, economic, and cultural history of the Mediterranean world from the 4th to the 8th centuries C.E. Roman Empire and its early Greek, German, and Arabic-speaking successor states.

**HIST 326 The Byzantine Empire (3)**

*Prerequisites:* ENG 214 or equivalent. Cross listed with MGS/CLAS 510. For course description, see MGS 510. (May not be repeated under alternate prefix.)

**HIST 327 The Medieval Mediterranean (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Examination of the interaction of geography, economy, religion, state, and society in the Mediterranean from the 6th to 15th centuries and complex Christian, Muslim, and Jewish conceptualizations of culture.

**HIST 328 Early Christian Church to 313 (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Christian Church from its beginnings to the conversion of Constantine. Quest for the historical Jesus; Orthodoxy and Gnosticism; development of worship; the Apologists; the phenomenon of martyrdom.

**HIST 329 Early Christian Church, 313-787 (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Christian Church from the conversion of Constantine to Iconoclasm. Establishment of the Imperial Church; monasticism; doctrinal controversies of the 4th and 5th centuries; worship; Rome, Africa, and the development of the papal primacy.

**HIST 330 The Early Middle Ages (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Society and culture in early medieval Europe, up to the 12th century. (Cross listed with HUM 403. May not be repeated under alternate prefix.)

**HIST 331 The High Middle Ages (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Society and culture in medieval Europe from the 12th to the 14th century. (Cross listed with HUM 404. May not be repeated under alternate prefix.)

**HIST 334 The Renaissance (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Political and economic conditions during the 14th and 15th centuries; the rise and spread of humanism; intellectual, political, and cultural developments characteristic of the Renaissance era.

**HIST 336 The Reformation (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Causes and progress of the Lutheran Reformation, variations within Protestantism, the Counter-Reformation; political and economic history of the 16th century.

**HIST 337 Knowing and Unknowing in Early Modern Europe (3)**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Examines ideological changes in Early Modern Europe by focusing on the dichotomies of knowing and unknowing, reason and religious mysticism, science and faith.

**HIST 338 Europe and the Wider World, 1348-1768 (3)**

*Prerequisites:* ENG 214; upper division standing. Examination of European history in a global light; impact of non-Europeans and marginalized inhabitants of Europe on political, social, economic, and intellectual developments in Europe.

**HIST 342 Europe and the French Revolution (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. European history from 1760-1799; the development of the Revolution in France; concurrent revolutionary movements outside of France.

**HIST 344 Nineteenth Century Europe (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Development of Western Europe from the time of the fall of Napoleon to World War I (1814-1914).

**HIST 346 Recent European History (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Western Europe since the eve of World War I; political and social problems originating in the conditions of the interwar period and World War II. (Cross listed with I R 346. May not be repeated under alternate prefix.)

**HIST 347 Women in Modern Europe (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Social, economic, political, and intellectual life of European women since 1500.

**HIST 348 Modern European Intellectual and Cultural History (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. European intellectual and cultural history from the Enlightenment to the present, and how this history has reacted to the changing European social and political landscape. (Formerly HISY 409)

**HIST 349 Topics in European History (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**HIST 350 Greece and the Balkans (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with MGS 350. For course description, see MGS 350. (May not be repeated under alternate prefix.)

**HIST 385 The Russian Revolution (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Crisis and collapse of Imperial Russia, traditions of the Russian revolutionaries, and rise of the Soviet Union of Stalin.

**HIST 386 Soviet Russia, the West, and the Cold War (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Relations between the Soviets and the West from 1945 to 1991; nuclear arms race and geopolitical conflicts.

**HIST 389 European International History, 1848-1918 (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. International relations of the European states: diplomatic history, including the range of cultural and intellectual contacts among them.

**HIST 390 European International History, 1918 to 1945 (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. International relations of the European states, diplomatic history: including the range of cultural and intellectual contacts among them.

**HIST 400 History of Modern European Imperialism (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Theories of imperialism, European public opinion and policies with regard to imperialism; influence of Western practices on non-European societies.

**HIST 418 Society and Politics in American History (3) [USH]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Changing nature of political patterns from the American Revolution to the present. Parties, elections, and policy-making at national level; ideological, social, and economic bases of politics. (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**HIST 420 American Colonial History (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. English colonies in North America from the settlement of Jamestown to the preliminaries of the great war for Empire. Modification of European institutions and ideals in the New World.

**HIST 422 The Founding of the American Nation (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. American Revolutionary era, 1763-1823: the Confederation, the Constitution, and political party system.

**HIST 424 History of the United States: 1827-1877 (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Internal development and expansion of the American people and the rise of sectional conflict, culminating in the Civil War and Reconstruction era.

**HIST 426 History of the United States: 1877-1916 (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. U.S. history from 1877 to 1916: impact of industrialization, urbanization, immigration on existing social and political systems.

**HIST 427 History of the United States: 1916-1945 (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. U.S. history from 1916 to 1945: politics of the New Era and New Deal; involvement in two world wars and its domestic impact; changing social, economic, and intellectual patterns.

**HIST 428 History of the United States Since 1945 (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. U.S. history since 1945: politics, foreign policy and changing social, economic, and intellectual patterns.

**HIST 448 The American West (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. The trans-Mississippi West in American history and thought: the century from 1846 to 1945.

**HIST 449 American Jewish History (3)**

*Prerequisite:* ENG 114 or equivalent. Cross listed with JS 449. For course description, see JS 449. (May not be repeated under alternate prefix.)

**HIST 450 History of California (3) [GE,CSLG]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. California through the Spanish and early American periods to the present. Satisfies the California state and local government requirement. (Fulfills the California State and Local Government component of the U.S. History and Government Requirement)

**HIST 460 U.S. Foreign Relations to 1913 (3)**

*Prerequisite:* ENG 214, upper division standing, or consent of instructor. Establishment and transformation of American foreign relations from the revolutionary period until the eve of World War I.

**HIST 461 U.S. Foreign Relations, 1913 - Present (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. The role of the U.S. in the world from 1913 to the present. Topics include: creation of American empire, emergence of U.S. as a superpower, the Cold War, U.S. in the international community.

**HIST 462 Making Whites: Race-making in America (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ETHS 670. For course description, see ETHS 670. (May not be repeated under alternate prefix.)

**HIST 463 History of Latinos in U.S. (3) [USH]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with LTNS 376 [formerly RAZA 376]. For course description, see LTNS 376. (May not be repeated under alternate prefix.) (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**HIST 464 American Ethnic and Racial Relations I: 1740-1890 (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Amerindians, African-Americans, Irish Catholics, and Chinese.

**HIST 465 American Ethnic and Racial Relations II: 1890-Present (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Effects of ethnic and race relations on American life from the closing of the frontier to the present: Russian Jews, American Irish, Mexican Americans, Japanese, and African-Americans.

**HIST 466 History of People of Color in the U.S. (3) [USH]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ETHS 600. For course description, see ETHS 600. (May not be repeated under alternate prefix.) (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**HIST 468 Women in U.S.: 1890-Present (3)**

*Prerequisites:* ENG 214 and upper division standing. History of the changing social, economic, political, and intellectual life of women in the U.S., 1890 to the present.

**HIST 469 American Childhoods: Past and Present (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. American childhoods through time and across the cultures since the 17th century. (Cross listed with SS 469. May not be repeated under alternate prefix.)

**HIST 470 The U.S. Constitution to 1877 (3)**

*Prerequisites:* ENG 214 or equivalent and upper division standing. U.S. constitutional developments from the Magna Carta through Reconstruction. The Constitution as a living instrument, shaping and changing national trends.

**HIST 471 U.S. Constitution Since 1877 (3)**

*Prerequisites:* ENG 214 and upper division standing, or consent of instructor. U.S. Constitutional history from the Reconstruction era to the present. The Constitution as a living instrument, shaping and changing national trends.

**HIST 473 Unfree Labor in Early America (3)**

*Prerequisites:* ENG 214 or equivalent and upper division standing. An examination and comparison of various forms of unfree labor in early America from the colonial period to the Civil War, tracing change over time and investigating the relationship among economic systems, ideology, and social relations. (Cross listed with ETHS/LABR 473. May not be repeated under alternate prefix.)

**HIST 474 History of Labor in the United States (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Development of the work force and of organized labor in the U.S. Social and economic characteristics of work and of the work force; characteristics of labor organizations at different times. (Cross listed with ECON/LABR 474. May not be repeated under alternate prefix.)

**HIST 476 American Environmental History (3)**

*Prerequisite:* upper division standing or consent of instructor. Americans' interactions with the physical environment from the European colonial period to the present.

**HIST 480 Thought and Culture in America to 1880 (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. American thought and culture from colonial times to the 1880's. Intellectual movements and influential texts. (Cross-listed with HUM 480. May not be repeated under alternate prefix.)

**HIST 481 Thought and Culture in America: 1880 to the Present (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. American thought and culture from the 1880s to the present. Intellectual movements and influential texts (Cross-listed with HUM 481. May not be repeated under an alternate prefix.)

**HIST 482 Religion in America (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. American religion, from colonial times to the present. Changing relations between religious thought and institutions. The range and variety of forms of religious expression in an increasingly urbanized, industrialized, and organized multicultural society.

**HIST 489 Dynamics of the American City (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with USP 400. For course description, see USP 400. (May not be repeated under alternate prefix.)

**HIST 490 Topics in American History (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**HIST 500 Colonial Latin America (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Hispanic America from prequest times to independence. Indian, African, and Hispanic elements in the colonization process; the new colonial culture; political, economic, religious, racial, and sexual domination; and the legacy of colonialism. (Formerly HIST 510.)

**HIST 501 Latin America: The National Period (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Latin America since independence (c. 1825). Histories of Latin American peoples: culture, race relations, women, political oppression and resistance, the economy, and development. (Cross listed with ANTH/SS 501 and LTNS 501 [formerly RAZA 501]. May not be repeated under alternate prefix.)

**HIST 520 Central America and the Caribbean (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Political, economic, and social development from the colonial era to the present. Contemporary Central America and the Caribbean, especially post-revolutionary Cuba.

**HIST 524 History of Mexico (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Mexico from colonial times to the present. Development of major economic, social, and political institutions.

**HIST 528 History of Brazil (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Brazil from colonial times to the present. Role of Brazil in Latin American history, shifting patterns of economic activity, evolution of political institutions, development of cultural patterns.

**HIST 535 History of Women in Latin America (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. History of the changing roles of women in Latin America from the colonial period to the present. (Cross listed with WGS 535 and LTNS 533 [formerly RAZA 533]. May not be repeated under alternate prefix.)

**HIST 550 Social Change in Modern Latin America (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Processes of modernization operative in various Latin American societies. 20th century developments which typify the region as a whole. (Cross listed with S S 550. May not be repeated under alternate prefix.)

**HIST 569 Ancient Chinese Civilization (3) [GE]**

*Prerequisites:* ENG 214 and upper division standing. The social, cultural, and political history of China, the oldest continuous civilization on earth, from the Neolithic through the end of the Tang, reconstructing the lives of philosophers, courtiers, monks, and commoners.

**HIST 570 Imperial China (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. The historical development of the Chinese empire from the budding of Neo-Confucianism, through the Mongol conquest, to the autocratic state of the Ming, down to the Manchu takeover, around 900-1700.

**HIST 571 History of Modern China (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. The rise and fall of the Ch'ing empire, the establishment of the Republic, the Communist Revolution, and its aftermath.

**HIST 575 History of Women in China and Japan (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Social, cultural, intellectual, political, and economic lives of women in China and Japan. (Cross listed with WGS 575. May not be repeated under alternate prefix.)

**HIST 578 History of Japan (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. The early cultural borrowings from China; the crystallization of feudal society; and the evolution of modern Japan since the Meiji restoration in 1868.

**HIST 584 India and the British Empire (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. History of civilization of the Indian subcontinent to the present. Addresses political, economic, social, ethnic, and linguistic factors that shaped regional development.

**HIST 585 India since Gandhi (3) [GE]**

*Prerequisite:* ENG 214, upper division standing, or consent of instructor. Introduction to themes in Indian history since the end of British colonial rule; the legacy of the British colonial empire, Gandhi and anti-colonial nationalism, Nehru's vision of India, and contemporary Indian nationalism.

**HIST 588 History of Southeast Asia (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Transnational history of Southeast Asia from the eleventh century to the present. Principle cultural and political areas include Burma/Myanmar, Thailand, Laos, Cambodia, Vietnam, Malaysia, Indonesia and the Philippines.

**HIST 604 Islamic World I: 500-1500 (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Islamic civilization, culture, and history from 500-1500.

**HIST 605 Islamic World II: 1500-present (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Islamic civilization, culture, and history from 1500 to the present.

**HIST 606 History of Iran and Afghanistan 1500-Present (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. History of Iran from the rise of the Safavid Empire to the present. Beginning with a historical background, the course moves on to examine the history of Iran in a period of colonialism, revolution, and the rise of Islam.

**HIST 607 Imperialism and Nationalism in the Recent Near East (3)**

*Prerequisites:* ENG 214, upper-division standing, or consent of instructor. Imperialism and colonialism in Near East (West Asia and Northern Africa) in 20th and 21st centuries, and reaction and reform within the region.

**HIST 609 Approaches to the African Past (3)**

*Prerequisites:* ENG 214, upper division standing, or consent of instructor. Explorations of different methodologies for studying the African past, including archaeology, anthropology, oral traditions, and history. (Cross-listed with ANTH 609. May not be repeated under alternate prefix.)

**HIST 610 History of Africa (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. African cultures from the Iron Age to 1880 with emphasis on Africa south of the Sahara.

**HIST 611 Modern Africa (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Rise and decline of European colonization and emergence of contemporary nationalist movements.

**HIST 632 Jewish History I: Beginnings to 1650 (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with JS 632. For description see JS 632. (May not be repeated under alternate prefix.)

**HIST 633 Jewish History II: 1650 to Present (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Cross listed with JS 633. For course description, see JS 633. (May not be repeated under alternate prefix.)

**HIST 640 Proseminar in European History (3)**

*Prerequisites:* ENG 214 or equivalent, HIST 300, and upper division standing or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**HIST 642 Proseminar in American History (3)**

*Prerequisites:* ENG 214 or equivalent, HIST 300, and upper division standing or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**HIST 644 Proseminar in World History (3)**

*Prerequisites:* ENG 214 or equivalent, HIST 300, and upper division standing or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**HIST 660 Computer Methodology for Historians (3)**

*Prerequisites:* ENG 214 or equivalent, HIST 300, and upper division standing or consent of instructor. Use of computers for on-line research and communication via the Internet, library catalogs, and similar resources.

**HIST 680 Archives or Historical Agency Internship (3-4)**

*Prerequisites:* ENG 214 or equivalent, major in history, consent of department chair, and upper division standing or consent of instructor. Internship with an archive or other historical agency. Development of knowledge, experience, and training in archival or historical agency work. Paired with HIST 880. May be repeated once; 7-unit limit in either HIST 680 or 880.

**HIST 681 Community Service Learning in the Schools (3) [GE]**

*Prerequisite:* upper division standing. Cross listed with S S 681. For course description, see S S 681. (May be repeated for a total of 6 units.) [CSL may be available; consult index for page reference.]

**HIST 690 Editing and Publishing the History Journal (1-4)**

*Prerequisites:* ENG 214 or equivalent, HIST 300, and upper division standing or consent of instructor. Supervised experience in editing and production of an annual journal of research. Not applicable to major or minor fields in history. No more than a combined total of 8 units may be earned in HIST 690 and 890.

**HIST 697 Honors Thesis (3)**

*Prerequisites:* ENG 214 or equivalent, HIST 660 (may be taken concurrently), and upper division standing or consent of instructor. Tutorial leading to an honors project or thesis based on study of a topic. Topic to be determined by student and faculty member.

**HIST 698 Directed Reading in History (3)**

*Prerequisites:* ENG 214 or equivalent, and upper division standing or consent of instructor. Directed reading in selected areas of history under the supervision of a faculty member.

**HIST 699 Special Study (1-4)**

*Prerequisites:* consent of instructor, major adviser, and department chair. Supervised study of a particular problem selected by the student.

**Graduate Courses**

*Prerequisite to all graduate courses in history:* admission to classified graduate status in history or consent of instructor. Seminars may be repeated when topics vary.

**HIST 700 History as a Field of Knowledge (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Seminar in the problems in the historical inquiry and facilities designed to prepare master's candidates for research and teaching.

**HIST 701 The Historiography of World History (3)**

*Prerequisites:* graduate status and HIST 700. Seminar examining the varieties of world history writing since World War II. Emphasis on the new world history approaches since the 1970s.

**HIST 710 Seminar in Ancient and Medieval History (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Topic to be specified in Class Schedule. Reading knowledge of one or more foreign languages is expected. May be repeated once when topics vary.

**HIST 720 Seminar in Medieval History (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Problems and research techniques of medieval history. A reading knowledge of one or more foreign languages is desirable. May be repeated as topics vary.

**HIST 730 Seminar in Early Modern European History (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Topic to be specified in Class Schedule. Reading knowledge of one or more modern foreign languages is expected. May be repeated once when topics vary.

**HIST 740 Seminar in the History of Europe Since 1815 (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Topic to be specified in Class Schedule. Reading knowledge of one or more foreign languages is expected. May be repeated once when topics vary.

**HIST 741 The Holocaust and Postwar Germany in English (3)**

*Prerequisite:* graduate standing or consent of instructor. Cross listed with GER/JIS 741. For course description, see GER 741. (May not be repeated under alternate prefix.)

**HIST 780 Seminar in American History To 1877 (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**HIST 785 College Teaching of History (3)**

*Prerequisite:* HIST 700 and 12 additional history units with GPA of at least 3.35. Training and teaching of history at the college level. Pedagogical workshop and classroom experience. May be repeated for a total of 4 units for degree credit. CR/NC grading only.

**HIST 790 Seminar in American History Since 1877 (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**HIST 799 Directed Historiography (1)**

*Prerequisite:* graduate standing in History; concurrent with an upper division history class. Graduate students complete additional reading during enrollment in upper division history class. May be repeated for a total of 3 units.

**HIST 800 Selected Themes in American History (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**HIST 805 Seminar in the History of Women (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Topics in the history of women and feminism to be specified in Class Schedule. May be repeated when topics vary.

**HIST 830 Seminar in Latin American History (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**HIST 840 Seminar in Asian History (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**HIST 850 Topics in World History Since 1500 (3)**

*Prerequisite:* graduate status and HIST 700. Topic to be specified in Class Schedule. May be repeated for a total of 6 units when topics vary.

**HIST 880 Archives or Historical Agency Internship (3-4)**

*Prerequisites:* classified standing in history and consent of department chair. For course description, see HIST 680. Paired with HIST 680.

**HIST 890 Editing and Publishing the History Journal (1-4)**

*Prerequisites:* classified graduate status in history, HIST 700, and consent of instructor. For course description, see HIST 690.

**HIST 896 Directed Reading in History (3)**

*Prerequisite:* classified graduate status in history or consent of instructor. Directed reading in one historical field, based upon a standard bibliography and consultation with departmental specialists in that field. Not open to M.A. candidates who choose to write a thesis.

**HIST 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the master's degree and consent of chair of candidate's committee for the Master of Arts. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**HIST 899 Special Study (1-4)**

*Prerequisites:* consent of the graduate major adviser, the supervising faculty member, and the department chair. Study is planned, developed, and completed under the direction of a member of the departmental faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition

**HOLISTIC HEALTH****Undergraduate Courses****HH 200 Holistic Approach to Academic Success (3) [GE]**

Concepts and skills for increased academic success, including mindfulness meditation for self-awareness, mental imagery for problem solving, and continuous improvement from an Eastern perspective. Lifelong learning, personal growth, and promoting a civil society are examined.



**HH 205 Relaxation and Stress Reduction (3) [GE]**

Research and theory in stress physiology and stress management, techniques of progressive relaxation, mental rehearsal, imagery training. Included are stress management strategies for coping with selected stress-related disorders with emphasis on relationship to physical activities.

**HH 290 Promoting Positive Health (3)**

Cross listed with H ED 290. For course description, see H ED 290. (May not be repeated under alternate prefix.)

**HH 380 Holistic Health: Western Perspectives (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Western development in holistic health. Overview of psychobiology of stress and self-regulatory methods such as: autogenic training, biofeedback, progressive relaxation, visualization, and behavioral techniques.

**HH 381 Holistic Health: Eastern Perspectives (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Eastern approaches to health and healing including acupuncture, yoga, meditation. Comparison, scientific evaluation, and synthesis of eastern and western models of human psychology and physiology.

**HH 382 Holistic Health: Human Nature and Global Perspectives (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Explores relation between health and ways of life through understanding human nature and its potential. Health orientations of different traditions in the course of evolution and the life cycle including birth and death. Socio-psychological factors in the healing process.

**HH 383 Chinese Perspectives in Holistic Health (3) [GE]**

*Prerequisite:* upper division standing. Taoist philosophy of health and healing: yin-yang and five element theory, principles of qi, patterns of disharmony and health, lifestyles and environmental influences, Chinese healing modes and self practices.

**HH 410 Tao of Well-Being in Chinese Tradition (3)**

*Prerequisite:* upper division standing. Exploration of the cultivation of well-being rooted in Chinese tradition. Topics include Taoist philosophy, classical poetry, basic principles of traditional Chinese medicine, therapeutic cuisine, Qi Gong meditation and calligraphy.

**HH 420 Chinese Body-Mind Energetics (3) [GE]**

*Prerequisite:* either HH 380, 381, 382, 383, or consent of instructor. Examination of the nature of qi energy meridians, methods of activating and balancing qi, and various related body-mind energetic practices including acupuncture, breath-work, and qigong meditation.

**HH 430 Foundation of Biofeedback and Self Regulation (3) [GE]**

*Prerequisites:* one college course in biology and HH 380 or 381 or 382 or consent of instructor. History, theory, research, physiological basis, and application of biofeedback and other self-regulatory techniques. Covers electromyographic, thermal, respiration, electrodermal, heart rate and electroencephalographic feedback techniques and self-practice of autogenic training. Classwork, 2 units; laboratory, 1 unit.

**HH 433 Autogenic Training and Embodied Living (3) [GE]**

*Prerequisite:* HH 380 or 381 or 382 or consent of instructor. Basic theory and technique of autogenic training, a self-generating therapeutic approach for clinical and non-clinical applications. Includes stress reduction concepts, self-practice, and individual and group training processes.

**HH 530 Herbal and Nutritional Principles in Chinese Healing (3)**

*Prerequisite:* either HH 380, 381, 382, 383, or consent of instructor. Chinese perspectives on the role of herbs and nutrition in health and well-being, historical and philosophical aspects, use of herbs in Chinese medicine, preparation and processing, differences in individual needs.

**HH 535 Western Nutrition and Herbs (3) [GE]**

*Prerequisites:* upper division standing or consent of instructor. The role of herbal products, nutraceuticals, and dietary choices in prevention, disease treatment, and self-care from a holistic perspective.

**HH 540 Meditation and Imagery in Healing (3) [GE]**

*Prerequisite:* HH 380 or 381 or 382 or 383. Theory and methodology of various forms of imagery and meditation in promoting health and healing, neuropsychophysiological correlates, and multicultural approaches and practices

**HH 545 Imagery and Healing in Tibetan Buddhism (3)**

*Prerequisite:* upper division standing. Mind-body healing in Tibetan medicine and culture. Theory and practical techniques, such as the use of symbolic imagery in everyday life, will be explored as useful approaches to balance and good health.

**HH 560 Naturopathic Medicine and Personal Wellness (3)**

*Prerequisites:* BIOL course and HH 380, HH 381, or HH 382, or consent of instructor. Examination of the philosophy, principles and practice of naturopathic medicine. Prevention and treatment of disease with natural therapies are examined, including diet, botanical therapies, homeopathy, hydrotherapy, and mind-body approaches.

**HH 621 Advanced Studies in Chinese Health and Healing (1-3)**

*Prerequisite:* HH 383 or consent of instructor. Topic to be specified in *Class Schedule*. Variable topics in advanced studies in Chinese health and healing.

**HH 660 Art as Healing (3)**

*Prerequisites:* H ED 310, HH 305, HH 380, HH 381, HH 382, or HH 383 or consent of instructor. Overview, physiology, and history of healing and art processes. Analysis and assessment of tools and techniques used in art for healing in medical and social settings. Students explore how artists work to heal individuals, communities, and ecosystems.

**HH 670 Alternative Health Practices (3)**

*Prerequisite:* HH 380, HH 381, HH 382, or HH 383, or consent of instructor. Overview of therapies and self-care practices in the holistic health field. Emphasizes multidisciplinary, cross-cultural explorations of the frontiers of health and healing. Presentations by leading edge practitioners and thinkers; includes one in-depth exploration of a healing approach. May be repeated for a total of 9 units.

**HH 680 Holistic Health Internship Seminar (3)**

*Prerequisite:* approval by holistic health adviser. Must be taken concurrently with HH 681. Issues, problems, and guidelines of practicing holistic health effectively.

**HH 690 Seminar: Psychophysiology of Healing (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Explores the psychophysiology of healing. Special emphasis upon the foundation, ramifications, and practice of therapeutic touch and healer-healer interaction. In-depth topical presentations of the healing process.

**HH 699 Special Study (1-3)**

*Prerequisites:* consent of instructor and director. Independent study under the direction of a faculty member. May be repeated provided that the area of study is different.

**HOSPITALITY MANAGEMENT**

See *Hospitality and Tourism Management*

**HOSPITALITY AND TOURISM MANAGEMENT***Undergraduate Courses***HTM 110 Introduction to Hospitality and Tourism Management (3)**

Survey of trends and developments in the hospitality and tourism industry, including a total approach to lodging operations, global travel, tourism business and foodservice establishments.

**HTM 120 Legal Aspects of Hospitality and Tourism Management (3)**

*Prerequisite:* HTM major; ENG 214 recommended. Hospitality law: when a facility may refuse to serve/evict a person; legal liability to guests, children of guests, trespassers; and liability for customers' property and autos.

**HTM 324 Historical and Contemporary Aspects of Food, Beverage, and Culture in America (3) [GE]**

*Prerequisite:* ENG 214. Historical and contemporary approaches to ethnic food and beverages that affect eating habits in the U.S. Social, economic, psychological, and other influences affecting food, beverages, and culture.

**HTM 339 Information Technology for International Hospitality and Tourism (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Information technology needs of international tourism businesses. Internet and information technology that influence multicultural hospitality and tourism worldwide businesses, customer marketing, and hospitality company goals. Emphasis on e-marketing, e-commerce, and online information distribution to commercial success. (Cross listed with ISYS 339. May not be repeated under alternate prefix.)

**HTM 351 Asian Food, Culture, and Hospitality (3) [GE]**

*Prerequisite:* ENG 214. Asian cultures and food preferences as they relate to eating habits; the influences of social, economic, and religious factors; Asian foods as herbs and medicinal uses; etiquette and cultural aspects of dining preferences for pleasurable eating. (Cross listed with CFS 351. May not be repeated under alternate prefix.)

**HTM 352 Foods, Production, and Service (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with CFS/DFM 352. For course description, see CFS 352. (May not be repeated under alternate prefix.) (Formerly HM 250.)

**HTM 364 Hospitality and Tourism Management Information Systems (3)**

*Prerequisites:* HTM major; ISYS 263 or pass computer information systems proficiency test. Management information systems in the hospitality and tourism industry. Understanding of computer systems and application software commonly found in the hospitality and tourism industry.

**HTM 390 Leisure Travel and Tourism (3)**

*Prerequisite:* RPT 200 or HTM 110. Cross listed with RPT 390. For course description, see RPT 390. (May not be repeated under an alternate prefix.)

**HTM 421 Food, Wine, and Culture in California (3) [GE]**

*Prerequisite:* ENG 214. Cultural and historical heritage of the food and wine industries in California, ethnic preferences for food and wine as they relate to immigration patterns, and cultural aspects of dining preferences for pleasurable eating in California.

**HTM 425 The Business of International Tourism (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Multi-cultural and cross-cultural aspects of the business of international tourism outside the U.S.A. An exploration of international tourism challenges today and in the future, from managerial and travelers' perspectives. The growth of tourism and the way it may affect the future of the world economy.

**HTM 448 Management of Quantity Food Purchasing and Production (3)**

*Prerequisites:* DFM 352 with grade of C or better. Cross listed with DFM 458. For course description, see DFM 458. (May not be repeated under the alternate prefix.)

**HTM 458 Hospitality Tourism Management Revenue and Cost Control (3)**

*Prerequisite:* HTM major; ACCT 101. Application of basic accounting techniques in the hospitality industry. Financial statement analysis; evaluation of investment decisions; review of financial statements in hotels, foodservices, and convention and event management establishments.

**HTM 515 Hospitality and Tourism Management Internship (3)**

*Prerequisites:* HTM major; senior standing. Must have 350 hours of faculty approved hospitality industry experience and 50 hours of professional development. Coordinated hospitality training combines practical experience with didactic academic analysis. Principles, theory and standard practices applied to operational situations. May be repeated for a total of 3 units.

**HTM 531 Hospitality Services Management (3)**

*Prerequisites:* HTM major; HTM 110 or consent of instructor. Service management and marketing concepts in hospitality service organizations, e.g., hotels, restaurants. Development and execution plans in a service economy. Nature and characteristics of services that need to be managed and marketed due to their intangible core and more conscious aspects of service quality.

**HTM 557 Restaurant and Catering Management (3)**

*Prerequisites:* HTM 352. Standards and theories dealing with restaurant and catering operations including marketing strategies; food purchasing, production and financial management; sanitation, safety and facility management in restaurants; menus and information system management; beverage and catering management. Required field experience accompanies lectures.

**HTM 560 Hospitality Human Resource Management (3)**

*Prerequisites:* upper division standing or consent of instructor. Policies and practices in hospitality human resources management. Functions of the personnel department in planning, recruiting, selection, performance appraisal, information systems, and recent legal issues.

**HTM 561 Hotel Operation Management (3)**

*Prerequisites:* HTM major; HTM 110 or consent of instructor. Principles, practices, and operation of hotel facilities; operating strategies, reservation systems and operation, housekeeping, accounting, and income control.

**HTM 563 Hospitality and Tourism Management Planning & Development (3)**

*Prerequisites:* upper division standing or consent of instructor. Issues inherent in the development and planning of hospitality facilities, specifically hotels and restaurants. Project development sequence, conceptual and space planning, architectural design criteria, construction management, and interpretation of architectural design and consultant drawings.

**HTM 567 Hospitality and Tourism Internship (2-3)**

*Prerequisite:* upper division standing. Practical field experience in hotel/lodging, foodservice and tourism business. Individually designed for students to acquire working knowledge toward skills and/or occupation in the hospitality industry. May be repeated for a total of 6 units.

**HTM 576 Hotel Convention Service Management (3)**

*Prerequisite:* HTM 110 or consent of instructor. Basic elements and concepts of convention service management from the hotel perspective. Understanding of the operations of a hotel convention services department and its relationship with other departments and with other hospitality entities.

**HTM 578 Hospitality and Tourism Management Sales and Marketing (3)**

*Prerequisite:* HTM 110 or consent of instructor; enrollment priority given to HTM majors. Basic elements and concepts of hotel sales and marketing. Problems and characteristics specific to the hotel industry. Sales and marketing process, marketing research, buyer behavior, product strategy, channels of distribution, promotional activity and pricing decisions.

**HTM 590 Integrated Seminar in Hospitality and Tourism Management (3)**

*Prerequisites:* HTM major in senior standing; MKTG 431, HTM 531. Integration of disciplines within hospitality and tourism management. Application of theoretical knowledge and trends. Development of conceptual, analytical, decision-making, and evaluative skills.

**HTM 595 Selected Topics in Hotel Administration (3)**

*Prerequisite:* upper division standing. Major issues facing the hotel industry. Strategies to minimize or maximize the issues.

**HTM 670 Advanced Conference Event Planning and Management (3)**

*Prerequisite:* RPT 340 or consent of instructor. Cross listed with RPT 670. For course description, see RPT 670. (May not be repeated under alternate prefix.)

**HTM 699 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive problem analysis under the direction of a faculty member. Open only to upper division students who have demonstrated ability to do independent work.

*Graduate Courses***HTM 850 Seminar in Emerging Issues in Hospitality & Tourism Management (3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. Intensive study of one or more emerging issues facing contemporary managers in the hospitality and tourism industry. May be repeated for a total of 6 units when topics vary.

**HUMAN SEXUALITY STUDIES**

*See Sexuality Studies*

**HUMANITIES***Undergraduate Courses***HUM 130 The Humanities: Major Works (3) [GE]**

Major works from several places and times, including the present, with the aim of perceiving their significance in human culture and creating meaningful individual relationships with them.

**HUM 205 Asian Art History (3) [GE]**

Cross listed with ART 205. For course description, see ART 205. (May not be repeated under alternate prefix.)

**HUM 220 Values and Culture (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Significant works of cultural expression with respect to their aesthetic dimensions, their historical contexts, and their illumination of human value patterns. At least one non-western work is studied.

**HUM 225 Values in American Life (3) [GE]**

Values that American thinkers, writers, artists, and designers have expressed within a developing culture; the diversities as well as the unities in the American experience and on the contributions of ethnic minorities to American society and its values.

**HUM 300 Junior Seminar Humanities Writing - GWAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C or better. Introduction to the practices of observation, comparison, and expression characteristic of interdisciplinary humanities as a field; development of skills in interpreting and writing essays on various expressive forms. ABC/NC grading only.

**HUM 301 Styles and Expressive Forms (3) [GE]**

*Prerequisite:* ENG 114. Interpretation of works and the relationship between form and content in a variety of expressive modes. Reading of selected visual, musical, and written works from various times and places.

**HUM 302 Theories and Methods in the Humanities (3) [GE]**

*Prerequisite:* ENG 114. Development and broadening of the student's acumen in the arts per se and in the arts as means of cultural comparison, through the study and use of major critical methods.

**HUM 303 Cultural Periods and Styles (3) [GE]**

*Prerequisite:* ENG 114. Development of the capacity for historical thinking through analysis of expressive forms generated within particular cultures. Variety of cultures and range of verbal and non-verbal forms of expression.

**HUM 320 Music, Ideas, and Culture (3)**

*Prerequisite:* junior standing. Functions of music in world cultural traditions; relation to other arts and disciplines. Writings of philosophers, critics, and musicians in conjunction with specific musical examples.

**HUM 345 Humanism and Mysticism (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Comparative study of humanistic and mystical thoughts; ways in which these two traditions have developed and affected human civilization.

**HUM 360 Styles of African Cultural Expression (3) [GE]**

*Prerequisite:* ENG 114. Variety of sub-Saharan African cultural styles before, during, and after White rule. Traditional and modern expression in many genres: genres created in Africa and Western genres transformed by Africans.

**HUM 361 Cultural Expression in Islam (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Classic works of Islamic holy/secular texts; art, architecture, novels, poetry, film. How great works characterize, symbolize, or are emblematic of specific intellectual environments, representing different times, places and diverse populations in Islamic civilization, including non Muslims.

**HUM 366 India's Gandhi (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. The complexity of Gandhi's values and ideas; major Eastern and Western influences on him; the admixture in his philosophy, literature, and politics.

**HUM 375 Biography of a City (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Intellectual, artistic, and social life of a particular city. May be repeated when city varies.

**HUM 376 San Francisco (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Investigation of San Francisco as a center of intellectual, social, and cultural life. Some sections offer field trips and tours.

**HUM 377 Jerusalem (3) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. The dynamics of Jerusalem's intellectual, artistic, and social life with emphasis on the great works that symbolize the contribution of that city to human culture. (Cross listed with JS 377. May not be repeated under alternate prefix.)

**HUM 390 Images of Eroticism (3) [GE]**

*Prerequisite:* ENG 114 or consent of instructor. Ways in which human sexuality, both the socially acceptable varieties and those practices which different societies attempt to prohibit, are represented in the art and literature of cultures in different historical periods.

**HUM 401 Classical Culture: Greece (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with CLAS 410. For course description, see CLAS 410. (May not be repeated under alternate prefix.)

**HUM 402 Classical Culture: Rome (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with CLAS 415. For course description, see CLAS 415. (May not be repeated under alternate prefix.)

**HUM 403 The Early Middle Ages (3) [GE]**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST 330. For course description, see HIST 330. (May not be repeated under alternate prefix.)

**HUM 404 The High Middle Ages (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with HIST 331. For course description, see HIST 331. (May not be repeated under alternate prefix.)

**HUM 405 Art, Literature, and Power in the Renaissance (3) [GE]**

*Prerequisite:* ART 202 or consent of instructor, or consent of Humanities adviser. Cross listed with ART 405. For course description, see ART 405. (May not be repeated under alternate prefix.)

**HUM 407 Romanticism and Impressionism (3) [GE]**

*Prerequisite:* ENG 114 or equivalent or consent of instructor. A variety of European and American expressive forms (literature, visual arts, music, philosophy) and their contexts from the Napoleonic Era to the beginning of World War I.

**HUM 410 The Modern Revolution (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Society, literature, thought, and art, and their interrelationships in late 19th and early 20th century Western culture; impact on cultural life of science, social crisis, and end of Western cultural isolation. (Not open to students who have completed PHIL 304.)

**HUM 415 Contemporary Culture (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Issues and achievements in art, thought, and society during the 20th century; literature, fine arts, philosophy, and history.

**HUM 425 Thought and Image: Humanities (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Works in the humanities and creative arts studied in terms of the unique ways the meanings, values, and forms reflect their cultures of origin. Works from at least two global cultures will be included.

**HUM 432 Nietzsche and Postmodernism (3)**

*Prerequisite:* ENG 214. Examines the most radical implications of Nietzsche's critique of western humanism. Close reading of major writings by Nietzsche and selected "postmodern" readings of Nietzsche. (Formerly HUM 367.) (Cross listed with PHIL 432. May not be repeated under alternate prefix.)

**HUM 434 Arendt and Heidegger (3)**

*Prerequisite:* first-year composition or consent of instructor. Hannah Arendt, a student of Heidegger, is renowned in her own right as philosopher and political theorist. In a comparative study explore the relationship of their ideas, and question the extent to which she was disciple or critic. (Cross-listed with JS 414/PHIL 434. May not be repeated under an alternate prefix.)

**HUM 450 California Culture (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with AMST 410. For course description, see AMST 410. (May not be repeated under alternate prefix.)

**HUM 455 Humanities of the Americas (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Humanities of American cultures emphasizing Latin America and the Caribbean. Cultural/historical framework for study of ancient, colonial, and modern humanistic expressions in architecture, folk arts, poetry, painting, murals, cinema, music.

**HUM 470 American Autobiography (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Reading and critical analysis of selected American autobiographies from the colonial period to the late 20th century.

**HUM 480 Thought and Culture in America to 1880 (3) [GE]**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST 480. For course description, see HIST 480. (May not be repeated under alternate prefix.)

**HUM 481 Thought and Culture in America: 1880 to the Present (3)**

*Prerequisites:* ENG 214 or equivalent, upper division standing, or consent of instructor. Cross-listed with HIST 481. For course description, see HIST 481. (May not be repeated under alternate prefix.)

**HUM 485 The Arts and American Culture (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with AMST 310. For course description, see AMST 310. (May not be repeated under alternate prefix.)

**HUM 490 American Images: Photography and Literature (3) [GE]**

*Prerequisite:* ENG 114. Selected American photographers and the relationship of their photographs to contemporary literary texts.

**HUM 495 Architecture and American Life (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Artistic and social history of American architecture, relation to the imagination, and role in art and life.

**HUM 496 Islam and the Poetics of Space (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. The built environment of Islam through critical reading of art, film, literature. How places take on meaning through use and perception, sensitive to time, place, ethnicity, gender, class, and ideology.

**HUM 501 Judaism, Christianity, and Islam (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Cross listed with JS/PHIL 501. For course description, see JS 501. (May not be repeated under alternate prefix.)

**HUM 507 Art of China (3)**

*Prerequisite:* ART 205 or equivalent. Cross listed with ART 507. For course description, see ART 507. (May not be repeated under alternate prefix.)

**HUM 510 Comparative Form and Culture (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Parallel forms of thought, feeling, and cultural expression in particular cultural areas interacting with each other, through consideration of architectural, musical, literary, pictorial, and critical works.

**HUM 520 North and South American Cultural Expression (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Values, ideas, and creative styles of North and South American cultures through comparisons of literary artistic and architectural creations from each culture. (Cross listed with LTNS 520 [formerly RAZA 520]. May not be repeated under alternate prefix.)

**HUM 525 Asian Cultures (3)**

*Culture to be specified in Class Schedule.* May be repeated when topics vary.

**HUM 526 Culture of Japan before 1850 (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Japanese literature, art, architecture, religion, aesthetic theory, and other forms of thought and image prior to 1850, studied in the context of the world view of the Japanese.

**HUM 527 Japan and Modernity (3) [GE]**

*Prerequisites:* ENG 114 or equivalent. Japanese literature, art, architecture, religion, aesthetic theory, and other forms of thought and image since 1850 studied in the context of the world view of the Japanese.

**HUM 530 Chinese Civilization (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Formation and development of Chinese civilization; intellectual movements examined in their historical context; ideas expressed in literary, visual, and performance arts.

**HUM 531 Images of Modern China (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. An introduction to modern Chinese culture through close reading of literature, historical documents, visual arts and film. All works read in translation.

**HUM 532 From Ghost Stories to Video Games: Japanese Fiction in Comparative Contexts (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with CWL 432. For course description, see CWL 432. (May not be repeated under alternate prefix.)

**HUM 535 Classical South Asian Cultural Forms (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Literature, philosophy, religion, art, architecture and music of Ancient and Medieval South Asia.

**HUM 536 Modern South Asian Cultural Forms (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Literature, philosophy, religion, art, architecture, theater, music, film and media of Modern South Asia.

**HUM 550 The Art of Autobiography (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Explores efforts to understand and give form to the self in religious and secular writings, self-portraits, film, with focus on culturally distinct forms of self-expression and on the construction of the self in narrative and image.

**HUM 690 Senior Seminar in the Humanities (3)**

*Prerequisite:* senior standing. Integration of students' interdisciplinary education through preparation and revision of a substantial piece of work. An aspect of human experience explored in culturally diverse works.

**HUM 699 Special Study (1-4)**

*Prerequisites:* previous humanities courses providing evidence of the student's ability and consent of instructor. Independent inquiry into a specific problem formulated by the student and approved by a member of the department who will judge the student's findings.

*Graduate Courses***HUM 700 Introduction to Integrative Study (3)**

*Prerequisite:* consent of graduate major adviser or instructor. Examination of the origins, traditions, and current practices of integrative humanities.

**HUM 701 Fine Arts in the Humanities (3)**

*Prerequisite:* consent of graduate major adviser or instructor. Character and province of the fine arts; ways artistic principles and experience form relationships with other disciplines and experience.

**HUM 702 Literature in the Humanities (3)**

*Prerequisite:* consent of graduate major adviser or instructor. Character and province of literature; ways literary principles and experiences form relationships with other disciplines and experience.

**HUM 703 History in the Humanities (3)**

*Prerequisite:* consent of graduate major adviser or instructor. Character and province of history; the ways historical principles and experience form relationships with other disciplines and experience.

**HUM 710 Seminar in European Forms and Culture (3)**

*Prerequisite:* consent of graduate major adviser or instructor. Relations of art and thought to society in European culture. Nature of the relationship among the arts, thought, and society at selected historical moments.

**HUM 711 Seminar in American Forms and Culture (3)**

*Prerequisite:* consent of graduate major adviser or American Studies adviser or instructor. Relations of art and thought to society in American culture. Nature of the relationship among the arts, thought, and society at selected historical moments.

**HUM 713 Seminar in Asian Forms and Culture (3)**

*Prerequisite:* consent of graduate major adviser or instructor. Relations of art and thought to society in Asia. Nature of the relationship among the arts, thought, and society at selected historical moments.

**HUM 720 Humanistic Themes (3)**

*Prerequisite:* graduate status or consent of instructor. Interdisciplinary approaches to the analysis of major themes in Humanistic works and the study of the modalities of the thematic approach to cultural analysis.

**HUM 721 Culture and Style (3)**

*Prerequisite:* consent of graduate major adviser or instructor. Analysis and interpretation of historic cultures and the evolution of distinctive styles of expression within particular cultural settings.

**HUM 722 New Models in Humanistic Studies (3)**

*Prerequisite:* consent of graduate major adviser or instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**HUM 723 Contemporary Humanistic Scholarship (3)**

*Prerequisite:* consent of graduate major adviser or instructor. A 20th century scholar whose work has been significant in several disciplines: his/her developments; the problems of knowledge, method, and culture which he/she examined; the intellectual tensions which influenced him/her; the result of his/her work.

**HUM 725 Great Theorists: Walter Benjamin (3)**

*Prerequisite:* graduate standing or consent of instructor. Cross listed with PLSI/GER 786. For course description, see PLSI 786. (May not be repeated under alternate prefix.)

**HUM 896 Directed Study of Humanistic Works (3)**

*Prerequisites:* advancement to candidacy for the master's degree and acceptance for culminating experience by graduate faculty member. Concentrated tutorial study of primary major humanistic works selected for the comprehensive examination. Course credit contingent upon satisfactory completion of comprehensive examination.

**HUM 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the master's degree and acceptance for culminating experience by graduate faculty member. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**HUM 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member. Individual study for selected master's degree candidates, pursued under special arrangements with a member of the department faculty.

**INFORMATION SYSTEMS***Undergraduate Courses***ISYS 198 Information Systems Spreadsheet Make-Up (1)**

*Prerequisite:* consent of instructor. Additional study to make up the spreadsheet component of otherwise equivalent courses in order to receive full credit. CR/NC grading only.

**ISYS 263 Introduction to Information Systems (3)**

*Prerequisite:* GE quantitative reasoning course or DS 212. Application of information systems (IS) in a business environment. Topics include information technology (IT), networks and internetworks, types of information systems and their development, problem solving using end-user tools, and social impact of IT. Classwork, 2 units; laboratory, 1 unit.

**ISYS 339 Information Technology for International Hospitality and Tourism (3) [GE]**

*Prerequisites:* ENG 214 or equivalent. Cross listed with HTM 339. For course description, see HTM 339. (May not be repeated under alternate prefix.)

**ISYS 350 Building Business Applications (3)**

*Prerequisite:* ISYS 263 with a grade of C- or better. Development of a multi-tier e-business application using high level tools. Design and implement a business rule tier, presentation tier, and data access tier in order to rapidly deliver innovative and extensible business solutions. Mini-projects culminate into a complete solution for an e-business application.

**ISYS 363 Information Systems for Management (3)**

*Prerequisites:* ISYS 263 and ACCT 100 with grades of C- or better. Information systems for management decision-making. Information system development from the end-user's perspective. Applications software used to develop solutions to business problems. Classwork, 2 units; laboratory, 1 unit.

**ISYS 463 Information Systems Analysis and Design (3)**

*Prerequisite:* ISYS 363 with grade of C- or better. Analysis and design of computer-based information systems. Classwork, 2 units; laboratory, 1 unit.

**ISYS 464 Managing Enterprise Data (3)**

*Prerequisites:* ISYS 363 and ISYS 350 with grades of C- or better. Principles and use of database management systems in business. Database design and implementation. Database definition, manipulation and control using SQL. Classwork, 2 units; laboratory, 1 unit. Plus-minus letter grade only.

**ISYS 467 Information Systems Internship (1-3)**

*Prerequisites:* ISYS 363, ISYS 365 or ISYS 367; completed application form; and consent of instructor. Provides IS and ECS majors the opportunity to participate in a semester of field experience in their chosen concentration. Major report required. May not be used as part of IS nor ECS concentration. CR/NC grading only.

**ISYS 471 E-Commerce Systems (3)**

*Prerequisites:* ISYS 363 with grade of C- or better. Electronic commerce systems including E-commerce models, the technologies behind E-commerce, and planning and implementing E-commerce systems. Class work 2 units; laboratory 1 unit.

**ISYS 472 System Administration for E-commerce (3)**

*Prerequisite:* ISYS 363 with grade of C- or better. Server administration to deliver e-commerce solutions. Practical skills required to perform system administration tasks, set up web and database servers, deploy enterprise-class web applications and servers. Classwork, 2 units; laboratory, 1 unit.

**ISYS 475 Building Web Applications with Open Source Software (3)**

*Prerequisites:* ISYS 363 and ISYS 350 with grades of C- or better. Concepts, techniques, and tools to develop Internet-oriented business application systems with emphasis on the web. Classwork, 2 units; laboratory, 1 unit.

**ISYS 512 Business Application Design and Development with .NET (3)**

*Prerequisites:* ISYS 350 and ISYS 363 with grades of C- or better. Theory and practice of distributed business application design and development. Architecture and components of a business application system, how to design and develop a business application, and how to develop the web-based components of a business application.

**ISYS 565 Managing Enterprise Networks (3)**

*Prerequisite:* ISYS 363 with grade of C- or better. Hardware and software for communications and their application to the distributed data processing environment. Terminal-to-host communication, local and wide area networks, transaction processing monitors. Classwork, 2 units; laboratory, 1 unit.

**ISYS 567 Information Systems Internship (3)**

*Prerequisites:* ISYS 363, ISYS 367 or 368, consent of instructor, completed application form, and minimum GPA of 3.0 in ISYS courses. Provides IS and OS majors the opportunity to participate in a field experience in their chosen concentration. Major report required.

**ISYS 568 Multimedia Business Applications Development (3)**

*Prerequisite:* ISYS 363 with grade of C- or better. Methodology and tools for the development of multimedia business applications. Classwork, 2 units; laboratory, 1 unit.

**ISYS 569 Information Systems for Business Process Management (3)**

*Prerequisite:* ISYS 363 with grade of C- or better. Design of information systems that closely aligned with business processes; business modeling languages and techniques; real world applications.

**ISYS 573 New Advances in IT in Organizations (3)**

*Prerequisite:* ISYS 363 with a grade of C- or better. Topic to be specified in Class Schedule. The rapid adoption of innovative Information Technology (IT) architectures and tools. May be repeated for a total of six units as topics vary. [CSL may be available; consult index for page reference.]

**ISYS 575 Information Security Management (3)**

*Prerequisite:* ISYS 363 with "C-minus" or better. Information security from a management perspective. Identification of organization's information assets, threats to these assets, information security strategy to protect assets. Classwork, 2 units; laboratory, 1 unit.

**ISYS 650 Business Intelligence (3)**

*Prerequisite:* ISYS 363. Analysis and design of business intelligence systems that are aligned with business processes. Identification and use of business data, (re)design of information and knowledge systems, business modeling methodology. Classwork, 2 units; laboratory, 1 unit.

**ISYS 663 Information Technology Project Management (3)**

*Prerequisite:* ISYS 463 with grade of C- or better. Managing information technology projects including both technical and behavioral aspects, Managing IT project scope, cost, time, quality, risk, human resources, communications, procurement, and outsourced IT projects. Senior IT management role.

**ISYS 699 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive problem analysis under the direction of a business computer information systems faculty member. Open only to upper division students who have demonstrated ability to do independent work.

**Graduate Courses****ISYS 767 Information Systems Internship (1-3)**

*Prerequisites:* ISYS 814, completed application form, and consent of instructor. Provides IS and ECS majors the opportunity to participate in a semester of field experience in their chosen concentration. Major report required. May not be used on GAP. CR/NC grading only.

**ISYS 814 Information Systems for Strategic Advantage (3)**

*Prerequisite:* BUS 782. In depth treatment of three topics: derivation of an Information Systems (IS) strategy, specification of information system requirements, and design and implementation of an information-based solution.

**ISYS 864 Managing Enterprise Data (3)**

*Prerequisite:* BUS 782. Principles and use of database management systems in business. Database design and implementation. Database definition, manipulation and control using SQL. Classwork, 2 units; laboratory, 1 unit. Plus-minus letter grade only.

**ISYS 865 Managing Enterprise Networks (3)**

*Prerequisite:* BUS 782. Selection and management of distributed data processing systems and concurrent communication networks. Distributed databases, computer system network applications, communication systems and protocols, transaction processing monitors. Distributed vs. centralized data processing cost/benefit analysis.

**ISYS 869 Business Process Management (3)**

*Prerequisite:* BUS 782. Design of business processes and their implementation through change management. Modeling and analysis of business processes. (Re)design and implementation of systems that enable them. Business modeling languages and techniques.

**ISYS 871 Electronic Commerce (3)**

*Prerequisite:* BUS 782. Electronic commerce from a managerial perspective. B2C and B2B e-commerce. E-commerce business and revenue models, security and payment, support services. Planning, implementing, and managing e-commerce in organizations.

**ISYS 882 Managing the Digital Enterprise (3)**

*Prerequisite:* ISYS 814 or equivalent. Principles and practice of managing information technology and digital enabled processes of an enterprise. Strategic, tactical, and operational planning for integration of IT throughout an enterprise.

**ISYS 895 Research Project in Information Systems (3)**

*Prerequisites:* DS/ISYS 814 and 3 800-level required courses in student's emphasis. Open only to computer information systems and electronic commerce MSBA candidates. Research methodology and supervised research culminating in oral and written presentations. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by Graduate Studies before registration.

**ISYS 899 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive study of a particular problem under the direction of an Information Systems faculty member. Open only to graduate students of demonstrated ability to do independent work.

**INSTRUCTIONAL TECHNOLOGIES****Undergraduate Courses****ITEC 299 HOW 2 LRN W UR IPOD (3)**

How to identify your learning preferences and styles, create learning strategies to improve and augment learning, and use a variety of learning aides and devices to support learning. E-learning aids to include Podcasts, web searches, electronic note-taking, cell phones, blog and wikis, intelligent tutors, etc.

**ITEC 487 Children and Television (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with BECA 487. For course description, see BECA 487. (May not be repeated under alternate prefix.)

**ITEC 601 Computer Fundamentals for Teachers (1)**

*Prerequisite:* senior standing. Basic computer skills as they apply to teaching. Development of competencies in operation and care of computer-related hardware, basic trouble-shooting techniques, appropriate uses of computer-based technology in teaching and learning, and evaluation of educational software. Students will demonstrate basic skills in writing, presentation, e-mail, and database software as applied to instruction.

**ITEC 699 Special Study (1-3)**

An intensive study of a particular problem under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open to regularly enrolled students only.

**Graduate Courses****ITEC 700 Strategic Approaches for Instructional Technologies (3)**

Utilize current recognized strategic approaches and procedures to design and develop your professional collateral or brand, your instructional technologies area(s) of expertise, and your workplace, introduction to your new or updated career. Self-directed projects guide you to your results.

**ITEC 711 Instructional Computing in Elementary and Middle Schools (1-3)**

Practice with computers in laboratory classroom; instructional applications of software. Integration of computing in teaching and in determining appropriate uses of technology. Equivalent to ITEC 712. Cannot be applied to degree in instructional technologies. Meets multiple subject credential state requirements.

**ITEC 712 Instructional Computing in Secondary Schools (1-3)**

Practice with computers in laboratory classroom; software applications in the secondary school classroom. Integrating computing in teaching and determining appropriate use of technology. Equivalent to ITEC 711. Cannot be applied to degree in instructional technologies. Meets single subject credential state requirements.

**ITEC 715 Foundations of Instructional Multimedia (3)**

*Prerequisites:* ITEC 740 or equivalent. Plan, design, and develop computer-based multimedia using current theories and practices. Includes graphic screen design, navigation, user interface design, and audio and video files. Components are combined using authoring software into a working interactive project.

**ITEC 720 Fieldwork in Educational Technology (3-5)**

*Prerequisite:* At least 12 units in Instructional Technology including ITEC 801, and consent of instructor. Students work in educational and business settings to select, design, create, and/or evaluate instructional materials and procedures.

**ITEC 740 Computer Design of Instructional Graphics I (3)**

*Prerequisite:* Demonstration of computer literacy. Theories of visual communication and graphic design as the foundation for development of instructional computer graphics using industry standard graphic software applications. Image manipulation and typography skills support projects for computer presentations multimedia, Web and print.

**ITEC 745 Instructional Web Authoring I (3)**

*Prerequisites:* ITEC 715 or ITEC 740. Fundamentals of web authoring: screen design, use of Web page creation tools, and functional use of HTML. The integration of instructional materials with Netscape browser. Design and implementation of instructional strategies using web sites.

**ITEC 770 Instructional Videography I (3)**

Introduction to the design and production of instructional videos. Develop and produce video projects. Acquire technical competence in visualizing, scripting, aesthetics, shooting, editing, and field testing. May be repeated once for credit with instructor's permission.

**ITEC 800 Theoretical Foundations of Instructional Technologies (3)**

Conceptual orientations to the theoretical structures that form the foundation of instructional systems message design: learning theories, instructional psychology, and instructional systems theory. Cannot be taken concurrently with ITEC 700.

**ITEC 801 Instructional Systems Design (3)**

*Prerequisite:* ITEC 800. Acquisition of competency in the design and development of instruction under the principles of cognitivism and instructional systems and its most crucial design aspects: needs and task analysis, learning strategies sequencing and formative evaluation. Should be taken after completion of ITEC 800.

**ITEC 805 Contemporary Developments in Instructional Technologies (3)**

*Prerequisites:* ITEC 800 and 801. Topic to be specified in Class Schedule. New theoretical and technological developments as they affect the field. May be repeated when topics vary.

**ITEC 815 Integration of Instructional Computing (3)**

*Prerequisites:* ITEC 710, ITEC 715 or equivalent. Integration of computing into instruction and utilization of a variety of hardware, systems, and peripherals in classrooms. Development of integration projects, including desktop publishing and video, the web, and multimedia.

**ITEC 816 Computer Resource Specialist (3)**

Design, develop, and present professional development workshops and technology training. Use best practices and current resources to establish teams for technology planning and develop effective leadership skills, change management plan and grant proposals for your school or non-profit organization.

**ITEC 823 Instructional Multimedia Tools: Flash I (3)**

*Prerequisite:* ITEC 820. Multimedia skills through experience with hardware and software tools for the production of instructional multimedia. Development of competence at storyboarding, authoring, graphics, digital sound, animation, movie editing in the context of applying interactive principles which promote learning.

**ITEC 825 Formative Evaluation and Usability Testing (3)**

*Prerequisites:* ITEC 800 and 801. Formative evaluation as an integral part of the professional practice of implementing instructional design projects. Identification and correction of problems in the usability of instructional media.

**ITEC 830 Design of Learning Environments with Emerging Technologies (3)**

*Prerequisites:* ITEC 800, 801 or consent of instructor. Provide instructional designers with knowledge in learning theories and skills in designing personal learning environment (PLE) with emerging technologies. Exploration of new learning paradigms for 21st Century learners, educational value of emerging technologies, and interface design.

**ITEC 835 Instructional Multimedia Tools: FLASH II (3)**

*Prerequisites:* ITEC 823. Advanced design and development techniques for Flash. Project-based learning and use of advanced authoring techniques in Flash.

**ITEC 840 Computer Design of Instructional Graphics II (3)**

*Prerequisites:* demonstration of computer literacy. Instruction in the creation of computer-generated graphics, typography, and principles of graphic design for instructions. Focus on how to influence learner perceptions while creating a variety of instructional graphics using industry-standard Adobe software.

**ITEC 842 Cognition, Mind, and Learning for Educators (3)**

Recent developments in cognition, learning, and instruction for educators; perspectives of behaviorism, developmentalism, socio-historical constructivism, cognitive science, metacognition, situated cognition, learning transfer, transformational learning, multiple intelligences, and cultural influences on cognition. (Also offered as ISED 742. May not be repeated under alternate prefix.)

**ITEC 845 Instructional Internet Authoring II (3)**

*Prerequisite:* ITEC 745. Design and development of Internet sites with platform neutral programs. Creation, maintenance, and updating of Web and Internet sites: server configuration and maintenance, shocked movies, and streaming video and audio.

**ITEC 850 Design and Management of Training Projects (3)**

*Prerequisites:* ITEC 800 and ITEC 801. Project design and management in the context of instructional systems design, as applied to developing and implementing major training projects in corporate settings: program development, supervision, group processes, staff and client relations.

**ITEC 852 Instructional Technologies in Organizations (3)**

*Prerequisites:* ITEC 800 and ITEC 801. Performance technology as a means of improving employee performance (TQM, reengineering, and the "learning organization") and the use of training technologies in the context of organizational development: presentations by managers of training departments.

**ITEC 854 Design of Print Instructional Materials (3)**

*Prerequisite:* ITEC 801. Design and production of instructional print materials for training and educational purposes, using a variety of applications: word processing, page layout, and slide presentation.

**ITEC 860 Distance Education (3)**

*Prerequisites:* ITEC 801. Understanding of distance education development and delivery. Exploration of the complexities of designing instruction in various distance contexts (corporate training, education, etc.) and application of these concepts in a real context through online facilitation and a major design project.

**ITEC 865 E-Learning Design and Development (3)**

*Prerequisites:* ITEC 801. Understanding instructional design and development processes in the production of e-learning for education, business, and community settings. Application of current e-learning design concepts in a major design and development project using creating simulation, game-based, or goal-based-scenario instructional approaches using emerging technologies.

**ITEC 894 Creative Work (3)**

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by Graduate Studies before enrollment. Students design, develop, and produce an instructional product or work. A CD-ROM which contains the instructional product and the design documents must be provided. CR/NC grading only.

**ITEC 899 Independent Study In Instructional Technologies (1-3)**

*Prerequisites:* ITEC 800 and 801. Development of an instructional unit or field internship under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair.

**INTERDISCIPLINARY STUDIES IN EDUCATION***Undergraduate Courses***ISED 100 General Studies Colloquium (3)**

Awareness and knowledge of the university community--its resources, services, structure. Personal and career counseling.

**ISED 150 Orientation to Education (3)**

Teaching as a career; professional opportunities, qualifications and demands. Classroom visitation and field trips through educational institutions. Designed to help students assess their interest in teaching as a vocation. Does not meet professional education requirements.

**ISED 160 Data Analysis in Education (3) [GE]**

*Prerequisite:* satisfactory completion of ELM requirement. Graphical representation of statistical data, descriptive and inferential statistics including measures of central tendency and variability, standard scores, correlation and regression, probabilistic reasoning, random sampling, and selected parametric and non-parametric tests of statistical significance.

**ISED 201 The EOP Student and the University (1-3)**

Assist students in clarifying academic goals and objectives; provide students with skills and understandings to facilitate academic choices; improve progress towards student goals with most effective use of student time and resources. [CSL may be available; consult index for page reference.]

**ISED 204 Critical Thinking and Decision Making (3)**

Various aspects of critical thinking including logical argumentation, hypothesis generation, concept acquisition, inductive reasoning, explanation. Application of decision-making skills to personal and societal problems.

**ISED 585 Cross-cultural Education (3)**

*Prerequisite:* upper division standing or consent of instructor. The "multicultural classroom" and of a culturally pluralistic model as an alternative to the present traditional monocultural model.

**ISED 699 Special Study (1-3)**

An intensive study of a particular problem in education under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open to regularly enrolled students only. [CSL may be available; consult index for page reference.]

*Graduate Courses***ISED 706 Principles and Methods of Adult and Vocational Education (3)**

Changing character and functions of adult and vocational education; objectives, methods, resources, and evaluation; social influences on adult life and work; implications of research on adult learning and work; field observations and curriculum development. Required for the Designated Subjects Credential.

**ISED 707 Planning and Funding Education and Community Programs (3)**

Implementation and implications of planning models used in establishing educational programs in public and private agencies, community organizations, and business and industry; assessment of needs; identification of target populations and funding sources; development of written plan for funding.

**ISED 715 Equal Opportunity in Education (3)**

History of "diversity" policies in education focusing on period between court-ordered desegregation of the 1950s to elimination of affirmative action at major public universities in California and Texas in the 1990s.

**ISED 716 Literacy and Cross-cultural Issues in Education (3)**

Literacy issues that impact education and their effects on student learning and teaching practices. Using language as a metaphor to introduce students to historical, sociological, and political effects on literacy and education in the U.S.

**ISED 717 Social Foundation for Multicultural Education (3)**

Sociological and philosophical foundations of education; social structure of issues related to race, class, and gender; relating these issues to effects on education and historical view of multicultural education in the U.S.

**ISED 735 Seminar on the Adult Learner (3)**

*Prerequisite:* ISED 606 or equivalent. Adult learning processes; multicultural learning styles in adults; motivation and the adult life cycle; ethical implications of research on adult learning; special needs of adult students.

**ISED 736 Leadership and Policy for Community and Non-Formal Education (3)**

Philosophy and theory of critical thinking and participatory leadership for groups of learners both in formal and non-formal, community-based educational organizations.

**ISED 738 Critical and Postmodern Pedagogies (3)**

*Prerequisite:* background in social foundations of education. Debates in education with respect to critical, participatory, and postmodern pedagogies; development and application of these philosophies to groups of learners; K-adult process and facilitation skills.

**ISED 739 Education and Community Development: Equity and Diversity (3)**

Effect of race, class, and gender on educational equity and diversity in formal and non-formal educational settings; investigates linkages between educational programming and community development and empowerment. [CSL may be available; consult index for page reference.]

**ISED 740 Education & Globalization: Issues in Comparative and International Education (3)**

*Prerequisites:* ISED 747 or equivalent. Comparative and international education. Regional/local differences in educational approaches; effect of globalization on transnational issues; education at all levels, human rights and peace education; policies and planning in international context.

**ISED 745 Practicum in a Multicultural Educational Setting (3)**

Clinical experience in a multicultural urban educational setting; development of instructional materials using pedagogically-sound principles; demonstration of effective teaching strategies and content.

**ISED 747 Culture, Language, and Society in Education (3)**

Research on interactions of culture, education, and society; the notion of culture; identifying interactions of culture and language in K-12 and adult education programs.

**ISED 748 Culture, Cognition, and Power Issues in Education (3)**

*Prerequisite:* Consent of instructor. Implications of culture for cognitive processes and power issues in education. Cross-cultural cognition, race, class, and gender in all educational settings.

**ISED 781 Teaching Improvement Process in Adult and Workforce Education (3)**

*Must be taken concurrently with ISED 782.* Problems in teaching adult or workforce education: cultural differences in students and communities, needs of students; counseling and guidance; leadership development, and instructional evaluation. Identifying and implementing instructional practices.

**ISED 782 Practicum in Adult Learning (3)**

*Must be taken concurrently with ISED 781.* Clinical experiences in adult education, work-force education, older adult, special needs, or other adult learning contexts; demonstration of use of teaching strategies and content.

**ISED 783 Introduction to Technologies for Adult Learning (1)**

Use technologies: microcomputers, on-line services, distance learning, and audio-visual equipment; impact of technologies on adult learning. Fulfills computer competency requirement for Designated Subjects Credential.

**ISED 797 Seminar in Educational Research (3)**

*Prerequisite:* consent of graduate adviser. Identification and analysis of research problems; methodology; techniques including sufficient familiarity with descriptive statistics to interpret writing; application of findings to field problems.

**ISED 891 Seminar in Selected Studies (1-3)**

*Topic to be specified in Class Schedule.* May be repeated as topics vary.

**ISED 895 Field Study (3)**

*Prerequisite:* ISED 797, completion of 24 units of MA coursework, and consent of instructor. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**ISED 898 Master's Thesis (3)**

*Prerequisites:* ISED 797, completion of 24 units of MA coursework, and consent of instructor. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. Oral examination at conclusion of course for M.A. CR/NC grading only.

**ISED 899 Special Study (1-3)**

An intensive study of a particular problem under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open only to regularly enrolled students.

**INTERIOR DESIGN***Undergraduate Courses***ID 240 Color and Design (3) [GE]**

Color and design theories: visual elements and principles of design, their properties and relationships; developing sensitivity to, and judgment of, design.

**ID 242 Drafting for Interior Design (3)**

*Prerequisite:* ID 240 (may be taken concurrently). Vocabulary, tools, and graphic techniques used by interior designers in communicating their proposed solutions to a design problem. Classwork, 2 units; laboratory, 1 unit.

**ID 243 Delineation for Interior Designers (3)**

*Prerequisite:* ID 242. Professional perspective and rendering presentations of interior design solutions. Application of graphic communication techniques and principles. Classwork, 2 units; laboratory, 1 unit.

**ID 300 Designers of the 20th/21st Centuries (3)**

*Prerequisite:* upper division standing. Cross listed with ADM 300. For course description, see ADM 300. (May not be repeated under alternate prefix.)

**ID 340 Human Dimensions in Housing and Interiors-GWAR (3)**

*Prerequisite:* upper division standing and ENG 214 or equivalent with grade of C or better. Priority enrollment for ID and CFS majors. Relationships between people and various characteristics of their habitats. Social, cultural, psychological, and ecological factors which determine how individuals behave in different housing environments. Implications for design solutions. ABC/NC grading only.

**ID 341 Contemporary Design in Housing and Interiors (3) [GE]**

*Prerequisite:* sophomore standing. Contemporary housing, interiors, and furnishings; designers and design philosophies that have influenced concepts in the 20th and 21st centuries.

**ID 342 Heritage of Housing and Interior Design (3)**

*Prerequisite:* ENG 114 or equivalent. Residential architecture and furnishings from ancient Egypt to 19th century England.

**ID 343 Housing for People with Special Needs (3)**

*Prerequisite:* ID 242 or consent of instructor. Priority enrollment for ID majors. Housing needs generated by special conditions and circumstances: the elderly, handicapped, or other occupant types. Implications for the functional and aesthetic design of neighborhoods, interior spaces, and furnishings. Classwork, 2 units; laboratory, 1 unit.

**ID 345 Computer-aided Drafting for Interior Design (3)**

*Prerequisites:* ID 242. Computer-aided design and drafting for interior design. Specification writing, cost estimating, record keeping, and other uses of the computer in the business. Extra fee required.

**ID 366 Forecasting Apparel and Interior Design Trends (3)**

*Prerequisites:* college level drawing class or consent of instructor; priority enrollment given to ADM/ID majors. Cross listed with ADM 366. For course description, see ADM 366. (May not be repeated under alternate prefix.)

**ID 440 The Housing Structure and Its Component Parts (3)**

*Prerequisites:* ID 242. Construction processes, component parts, and systems of environmental control used in housing environments. Translation of three-dimensional space, structural components, and systems in two-dimensional media. Classwork, 2 units, laboratory, 1 unit.

**ID 445 Business Practices for Interior Design (3)**

*Prerequisites:* ID 243 and 345. Business practices for interior design: contracts, bookkeeping, and client relations.

**ID 540 The Materials of Interior Design (3)**

*Prerequisites:* ID 243 and 445. Materials and techniques used in furnishing interiors. Design and quality of materials and construction used in the design product. Interrelationships among components of interiors. Extra fee required.

**ID 543 Sustainability in the Textile, Housing, and Food Industries (3)**

*Prerequisite:* upper division standing. Sustainable principles and practices, energy and water efficiency, resource conservations, economic, health and environmental issues, rating systems applied to projects; evaluation of sustainable products and processes. (Paired with CFS 743. Students who have completed CFS 743 may not take ID 543 for credit.)

**ID 545 Advanced Computer Aided Drafting for Interior Designers (3)**

*Prerequisite:* ID 345. Advanced study in the use of computer software for interior design: creation of three-dimensional rendered drawing for design development and presentations. Classwork, 2 units; laboratory, 1 unit.

**ID 600 Professional Development (3)**

*Prerequisites:* graduating senior; completion of GWAR course, passing score on JEPET or ENG 411/414. Cross listed with CFS/ADM 600. For course description, see CFS 600. (May not be repeated under alternate prefix.)

**ID 640 Interior Design Solutions--Residential (3)**

*Prerequisites:* ID 243, ID 540 or concurrent enrollment in ID 540. Functional and aesthetic design of environments based on human needs and standards. Application of principles of design and color to residential spaces. Classwork, 2 units; laboratory, 1 unit.

**ID 641 Interior Design Solutions--Commercial (3)**

*Prerequisite:* ID 243, ID 540 (ID 540 may be taken concurrently). Functional and aesthetic design of environments based on human needs and standards. Application of principles of design and color to commercial spaces. Classwork, 2 units; laboratory, 1 unit.

**ID 645 Advanced Interior Design Solutions (3)**

*Prerequisite:* ID 243, ID 640. Designing interiors for specific clients. Methods and techniques for interpreting design solutions to clients and others. Techniques of costing design solutions. Classwork, 2 units; laboratory, 1 unit.

**ID 685 Projects in Teaching of Interior Design (1-3)**

*Prerequisites:* undergraduate standing in ID, approval of supervising instructor, and grade of B or better in course in which student will be assisting. Teaching experiences in ID through assigned instructional projects in a classroom and under the guidance of a member of the faculty. Training in pedagogical principles including supervised classroom teaching activities. May be repeated for a total of 4 units.

**INTERNATIONAL BUSINESS***Undergraduate Courses***IBUS 330 International Business and Multicultural Relations (3)**

*Prerequisite:* upper division standing or consent of instructor. International business: social, political, cultural and economic environments and their effects on functional management. Trade, global strategy, foreign direct investment, economic integration, foreign exchange, and the multinational enterprise.

**IBUS 331 Cross-cultural Creativity in Business (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross-cultural creativity arising from multiple information processing perspectives in business environments and international competition. May not be counted as an elective course in the International Business concentration.

**IBUS 430 Import-Export Management and Small Business Operations (3)**

*Prerequisite:* IBUS 330 with grade of C- or better, or consent of instructor. Practical aspects of export and import management in small and medium-size businesses; export and import procedures, foreign sales, documentations, legal considerations, logistics and financial practices.

**IBUS 431 Value Creation in the Transnational Enterprise (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with DS 431. For course description, see DS 431. (May not be repeated under alternate prefix.) May not be counted as an elective course in the International Business concentration.

**IBUS 517 Legal Environment of World Business (3)**

*Prerequisite:* IBUS 330. Status of persons and property within a foreign country. International transactions with or by governments or instrumentalities. Legal systems: overlapping or conflicting interests, problems of nationalization, annulment of contracts, or concessions in foreign countries.

**IBUS 566 Careers in International Business (3)**

*Prerequisites:* IBUS 330 with grade of C-minus or better, and two additional IBUS courses; or consent of instructor. Designed for students interested in working with and in the international business environment. Career decision making and career management skills.

**IBUS 567 Internship in International Business (1-3)**

*Prerequisites:* IBUS 330, minimum 3.0 SFSU GPA. Analysis of experience with an international business or government. Weekly individual conferences with instructor. May be repeated for a total of 6 units.

**IBUS 590 International Environmental Analysis (3)**

*Prerequisite:* IBUS 330 with C- or better or consent of instructor. Factors affecting the conduct of contemporary business transactions in a number of specific global environments.

**IBUS 591 Doing Business in Latin America (3)**

*Prerequisites:* IBUS 330 with C- or better or consent of instructor. Business in Latin America. Demographics, psychographics, cultural and social values, business and managerial methods and systems.

**IBUS 592 Doing Business in Greater China (3)**

*Prerequisites:* ENG 214 or equivalent, IBUS 330 with C- or better, or consent of instructor. Business in Greater China: demographics, cultural and social values (philosophies, language, etc.), business and managerial methods and systems.

**IBUS 593 Doing Business in Europe (3)**

*Prerequisite:* IBUS 330 with grade of C- or better or consent of instructor. Business, economic, political, and social conditions affecting commercial conduct in Europe. Opportunities and challenges for investment and trade.



**IBUS 594 Doing Business in Asia-Pacific Countries (3)**

*Prerequisites:* IBUS 330 with grade of C- or better or consent of instructor. In-depth study of current issues in Asia-Pacific economic, cultural, political, social, and institutional environments and their impacts on national competitiveness within the region.

**IBUS 596 Doing Business in Japan (3)**

*Prerequisite:* IBUS 330 with grade of C- or better or consent of instructor. Issues in Japanese culture, management, organization, and employment relations. Organizational behavior and international business strategies of Japanese firms. Development of a strong base of knowledge for research, consulting, or business.

**IBUS 597 Doing Business in India (3)**

*Prerequisite:* IBUS 330 with C- or better or consent of instructor. Past, current, and future business issues in India. India's economic, cultural, political, social and institutional environments and their impact on trade relations, national competitiveness and business opportunities.

**IBUS 598 Doing Business in Emerging Markets (3)**

*Prerequisite:* IBUS 330 with a grade of C- or better, or consent of instructor. Insight into or guidelines for ways of interacting and doing business with the wide range of cultures, institutions, businesses, and regions that are associated with emerging markets.

**IBUS 618 International Human Resource Management (3)**

*Prerequisites:* IBUS 330 with C- or better, MGMT 405 and 610, or consent of instructor. Cross listed with MGMT 618. For course description, see MGMT 618. (May not be repeated under alternate prefix.)

**IBUS 620 Research in International Business and the Global Market (3)**

*Prerequisites:* IBUS 330 with grade of C- or better or consent of instructor. Strengthening skills in analyzing international markets and conducting a business plan. International business entry strategy, international environment analysis, international business risks, and more. IBUS 655 Seminar in Emerging Issues in International Business (3)

*Topic to be specified in Class Schedule.* May be repeated when topics vary.

**IBUS 659 Introduction to International Business Negotiation (3)**

*Prerequisite:* IBUS 330 and MGMT 405 with grade of C- or better or consent of instructor. Intercultural negotiating skills become more essential as business becomes more global and participative. Exercises involving various protagonists, organizational contexts, and situations. (Cross listed with MGMT 659. May not be repeated under alternate prefix.)

**IBUS 676 Social Entrepreneurship in a Global Context (3)**

*Prerequisite:* IBUS 330 with grade of C- or better. Examination of social entrepreneurship in a global context. Focus on new business models, micro-financing, and community-based entrepreneurship.

**IBUS 681 Seminar in Comparative Management (3)**

*Prerequisite:* IBUS 330 with C- or better or consent of instructor. Analysis of managerial performance in different cultures. Examines the international dimensions of organizational behavior in different countries and the varying socioeconomic, political, and legal variables that interact with culture to affect local and international management.

**IBUS 690 Global Strategic Management (3)**

*Prerequisites:* IBUS 330 with C- or better, MGMT 405 and FIN 350 or consent of instructor; FIN 535 recommended. A case study approach to business strategy, tactics, and decision-making in multinational enterprise. Interactive effects of governmental and business policies.

**IBUS 699 Special Study (2-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive problem analysis under the direction of an international business faculty member. Open only to upper division students who have demonstrated ability to do independent work. [CSL may be available; consult index for page reference.]

**Graduate Courses****IBUS 815 Seminar in International Business (3)**

*Prerequisite:* Classified graduate status. Enrollment priority for graduate students in business, and computing and business. Themes of culture and environments; the multinational enterprise and forms of international structure and strategy; rationalization of value chains, locational decisions and FDI; foreign exchange; global and regional economic integration.

**IBUS 841 Creativity for Managers: A Global Perspective (3)**

*Prerequisite:* graduate standing. Recognize, analyze, and support the value-adding determinants of creative behavior in global context; techniques for enacting and fostering productive creativity.

**IBUS 857 Seminar on Business in Greater China (3)**

*Prerequisite:* BUS 788. Analysis of opportunities, challenges, and approaches required for effective trade, investment, and business operations in The People's Republic of China, Taiwan, and Hong Kong. Cultural, institutional, legal, and economic environment. Business and government systems.

**IBUS 859 International Business Negotiating (3)**

*Prerequisites:* 6 units in SFSU graduate program. Cross listed with BUS 859. For course description, see BUS 859. (May not be repeated under alternate prefix.)

**IBUS 867 Graduate Internship in International Business (1-3)**

*Prerequisite:* minimum 3.3 GPA. Analysis of experience with an international business or government. Weekly individual conferences with instructor.

**IBUS 868 Strategies in Emerging and Developing Economies (3)**

*Prerequisite:* Graduate Standing. Examination of the strategies and basic institutions underlying emerging markets in developing economies. Focus on strategies, business models, micro-financing, and community-based initiatives.

**IBUS 881 Seminar in Comparative Management (3)**

*Prerequisite:* IBUS 815 or consent of instructor. Analysis of managerial performance in different cultures. Examines the international dimensions of organizational behavior in different countries and the varying socioeconomic, political, and legal variables that interact with culture to affect local and international management.

**IBUS 889 International Business Strategy (3)**

*Prerequisite:* graduate standing. International strategy and structure; analysis of the multinational enterprise, tools and techniques of global industry analysis.

**IBUS 895 Research Project in International Business (3)**

*Prerequisites:* two IBUS 800-level courses; two additional 800-level courses; approval of the Business Graduate Studies office. Open to International Business M.S.B.A. candidates only. CR/NC grading only.

**IBUS 899 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive study of a particular problem under the direction of an international business faculty member. Open only to graduate students of demonstrated ability to do independent work. [CSL may be available; consult index for page reference.]

**INTERNATIONAL RELATIONS****Undergraduate Courses**

Because international relations courses numbered 300 and above include significant writing requirements, students should complete ENG 214 or an approved equivalent before enrolling in them. Students enrolled in upper division international relations courses should have upper division standing (completion of 60 units) or consent of the instructor.

**I R 104 Introduction to World Affairs (3) [GE]**

Cross listed with S S 104. For course description, see S S 104. (May not be repeated under alternate prefix.)

**I R 204 Introduction to International Relations (3)**

*Prerequisite:* restricted to IR majors. Introduction to the contemporary international system: the historical context of its formation, the major actors of the current state system and how they mutually interact and face major issues. Plus-minus letter grade only.

**I R 306 U.S.-Central American Relations (4)**

*Prerequisites:* ENG 214 and upper division standing. Examination of the background and current crisis in Central America with a special focus on the political, social, and economic relations of the countries of Central America to the United States.

**I R 308 Fundamentals of International Relations Theories, Issues, and Perspectives (4)**

*Prerequisites:* I R 104, ENG 214, and upper division standing. Field of international relations: international political, economic, and cultural systems and regimes in world affairs. Theories, processes, problems, and prospects in the international arena.

**I R 309 International Relations Analysis and Application-GWAR (4)**

*Prerequisites:* ENG 214 or its equivalent with grade of C or better and I R 308; upper division standing. Restricted to IR majors. Analysis of international relations issues from a theoretically sophisticated perspective. Important contemporary, emerging, and enduring issues are debated. Designed for majors and minors. Extra fee required. ABC/NC grading only.

**I R 310 U.S. Foreign Policy (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. The foreign policy process in American government. Analysis of the institutions in American society which determine our foreign policy.

**I R 312 Introduction to International Political Economy (4) [GE]**

*Prerequisites:* I R 104 and I R 308; ENG 214 or equivalent and upper division standing. Familiarizes various theories of international political economy (IPE) and examines how they explain past and present international relations. In the process, students become familiar with the actors, institutions, and issues important to IPE.

**I R 315 Introduction to Global Peace Studies (3) [GE]**

*Prerequisites:* ENG 214 and upper division standing. Cross listed with GPS/PHIL 315. For course description, see GPS 315. (May not be repeated under alternate prefix.)

**I R 321 Development and Foreign Policy--Africa (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. A comparison of the foreign policies of various African nation-states; in particular, a consideration of those policies as expressions of national frameworks, ideological perspectives, etc. (Cross listed with PLSI 321. May not be repeated under alternate prefix.)

**I R 322 Latin American Policy Analysis (4) [GE]**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Examination of the international relations and foreign policy-making systems of Latin American nations and an analysis of selected foreign policy problems facing Latin American decision-makers with oral and written reports. (Cross listed with PLSI 322. May not be repeated under alternate prefix.)

**I R 323 The Persian Gulf in International Relations (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. Recent history of the Persian Gulf/Arabian Peninsula region: Bahrain, Iran, Iraq, Kuwait, Qatar, the United Arab Emirates, and Saudi Arabia; security issues, economic development, modernization and political reforms, Islamic revolution, trade and globalization.

**I R 324 Middle East and North Africa in International Relations (4) [GE]**

*Prerequisite:* ENG 214 and upper division standing. Exploration of contemporary political and socioeconomic development in the Middle East region. Historical review of the demise of the Ottoman Empire, the anti-colonial revolt, the emergence of Israel, secular nationalism, and the rise of Islamism.

**I R 325 Chinese Foreign Policy (4) [GE]**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Examination of China's international relations and the actors involved in constructing it. Analysis of the factors influencing China's participation in international affairs. Assessment of the international realm's effect on Chinese foreign policy. (Cross listed with PLSI 325. May not be repeated under alternate prefix.)

**I R 326 South and Southeast Asia Foreign Relations (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. The foreign policy interaction of states in the South and Southeast Asian regions. Historical origins and development of states in these regions, as well as the evolution of their foreign policies, are examined in the context of SAARC and ASEAN.

**I R 328 Domestic and Foreign Policy: Post-Communist Regions (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. Development and subsequent dynamics of what used to be called the Soviet Bloc. Analysis of current relations in light of events in the post-World War II period, as in discussing the Soviet role in Poland's policies toward Solidarity. (Cross listed with PLSI 328. May not be repeated under alternate prefix.)

**I R 329 U.S.-Japan Politics (4) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. In the postwar period, U.S.-Japan relations have moved from the periphery of international politics to the center, yet our understanding of this development has lagged behind. The origins of the trade deficit, competition, and related economic and security questions. (Cross listed with PLSI 329. May not be repeated under alternate prefix.)

**I R 330 World Law (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. The natural and positive schools of law; the role of law in the world community; the substantive areas of international laws on recognition, nationality, territory, jurisdiction, and conflict resolution; forces influencing the future role and development of world law.

**I R 331 Global Environmental Crisis (4) [GE]**

*Prerequisite:* ENG 214 and upper division standing. Describes the impact of a growing world economy and population on biological and physical earth systems, and the potential consequences of environmental destruction for human well-being. Explores the historical and economic reasons for the political divide between developed and less-developed countries with respect to environmental issues and negotiations. (Cross listed with ENV 331. May not be repeated under alternate prefix.)

**I R 332 International Criminal Law (4) [GE]**

*Prerequisite:* upper division standing, CJ 300, passing score on JEPET or ENG 414, or consent of instructor. Cross listed with CJ 505. For course description, see CJ 505. Classwork, 3 units; fieldwork, 1 unit. (May not be repeated under alternate prefix.)

**I R 334 International Organizations: New World Order (4)**

*Prerequisites:* ENG 214 and upper division standing. Analysis of the nature, role, history, and future of international organizations in the social, economic, and political development of world community. Examination of present patterns and problems of international political behavior as seen through and influenced by international organizations.

**I R 335 Muslim Societies in Transnational Perspective (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Introduction to the complexity and diversity of the Muslim world with identification of transnational trends and linkages that characterize contemporary Muslim societies. Organized around seminal issues and themes, does not require prior knowledge of Islam.

**I R 336 Politics of Globalization (4) [GE]**

*Prerequisites:* IR 104 and upper division standing. Analysis of nature of globalization and its impact. Examination of causes of globalization and its effect on the state, policy autonomy, national security, the developing world, and culture. I R 341

Comparative Criminal Justice (4)

*Prerequisite:* upper division standing. Cross listed with C J 340. For course description, see C J 340. (May not be repeated under alternate prefix.)

**I R 342 Strategy and War (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. War as an instrument of national policy. Causes of war and classical and modern strategies for winning it from Clausewitz to Herman Kahn. Strategic theory, games, deterrence, guerrilla warfare, counter-insurgency, weapons technology, and the political consequences of preparedness. (Cross listed with PLSI 342. May not be repeated under alternate prefix.)

**I R 346 Recent European History (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST 346. For course description, see HIST 346. (May not be repeated under alternate prefix.)

**I R 360 Intelligence and Intelligence Agencies (4)**

*Prerequisites:* ENG 214 and upper division standing. The role of modern intelligence agencies such as the CIA and the KGB as information sources for foreign policy making. Analysis of intelligence successes and failures and proposals for improving the intelligence process.

**I R 361 Terrorism and Covert Political Warfare (4)**

*Prerequisites:* upper division standing, ENG 214 or equivalent, or consent of instructor. Terrorism and covert political warfare as international instruments especially since World War II. The use of terror and covert political warfare and the responses to their use. (Cross listed with C J 461. May not be repeated under alternate prefix.)

**I R 362 Domestic & Transnational Sources of US Foreign Policy (4)**

*Prerequisite:* ENG 214 or equivalent and junior standing. The role of domestic interest groups, social movements, and ethnic groups in making US foreign policy, and the impact of international political economy and transnational social movements. Examination of how foreign events and policies affect Americans.

**I R 404 Politics of China (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with PLSI 404. For course description, see PLSI 404. (May not be repeated under alternate prefix.)

**I R 407 Politics of Russia (4) [GE]**

*Prerequisite:* upper division standing. Cross listed with PLSI 407. For course description, see PLSI 407. (May not be repeated under alternate prefix.)

**I R 411 East Asian Politics (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with PLSI 411. For course description, see PLSI 411. (May not be repeated under alternate prefix.)

**I R 412 South Asian Politics (4) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Cross listed with PLSI 412. For course description, see PLSI 412. (May not be repeated under alternate prefix.)

**I R 416 Ethnicity and Nationalism (4) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Cross listed with PLSI 416. For course description, see PLSI 416. (May not be repeated under alternate prefix.)

**I R 417 Gender, Equality, and Politics: A Comparative Perspective (4)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with PLSI 417. For course description, see PLSI 417. (May not be repeated under alternate prefix.)

**I R 428 International Political Economy of Food and Hunger (4)**

*Prerequisites:* upper division standing or consent of instructor. Exploration of why hunger persists in a world of abundance; food aid, farm policy, and global food trade; whether production can match population growth without environmental harm; crop genetic engineering, international policies and movements for sustainability, and food sovereignty/security. (Cross listed with GEOG 428. May not be repeated under alternate prefix.)

**I R 430 Israeli Democracy: Politics, Institutions, and Society (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with JS/PLSI 430. For course description, see JS 430. (May not be repeated under alternate prefix.)

**I R 432 Model United Nations (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. Major social, economic, and political issues before the United Nations; their meaning for a selected member state. Participation in annual Model United Nations Conference under faculty supervision. May be repeated for a total of 8 units.

**I R 446 The Multinational Corporation in World Affairs (4) [GE]**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Examination of nature of multinational corporations (MNCs) and sources of their internationalization. Review of major schools of thought about MNCs power (obsolescing bargain, dependencia, and bargaining model) vis-a-vis host and home governments, and international regimes.

**I R 450 International Labor (3)**

*Prerequisite:* LABR 250 or consent of instructor; upper division standing. Cross listed with LABR 550. For course description, see LABR 550. (May not be repeated under alternate prefix.)

**I R 452 International Media Politics (4)**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Examination of how communication among states and non-state entities shapes international relations, from the perspective of various theoretical and epistemological approaches. (Cross listed with JOUR 452. May not be repeated under alternate prefix.)

**I R 515 The Two Koreas (3)**

*Prerequisite:* upper division standing. Cross listed with ANTH 515. For course description, see ANTH 515. (May not be repeated under alternate prefix.)

**I R 520 Globalization and Development (4) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Explores origins of poverty in Africa, Latin America, Asia; successes and failures of development policies and aid, technology, industrialization, trade trends and controversies, inequality, impacts of globalization, international agencies, NGOs, social movements for justice and sustainability. (Cross-listed with S S 520. May not be repeated under alternate prefix.)

**I R 530 The Arab-Israeli Conflict (3)**

*Prerequisite:* ENG 114 or equivalent. Cross listed with JS 560. For course description, see JS 560. (May not be repeated under alternate prefix.)

**I R 540 The Rich and the Poor Nations (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. Institutional framework and processes of international development, finance, trade, and foreign aid. Exercise of influence and cultural dominance by developed over less developed nations through diffusion, transferal, and exchange. (Cross listed with S S 540. May not be repeated under alternate prefix.)

**I R 544 Women in the World (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. Analysis of women's roles in political, social, and economic development of selected nations and in international relations; effect of global movement for women's rights. Case studies of female leaders and their impact on world affairs. (Cross listed with PLSI/S S 544. May not be repeated under alternate prefix.)

**I R 550 Proseminar in Foreign Policy Analysis (6)**

*Prerequisites:* all 300-level IR core courses or consent of instructor; pass JEPET or 414. Analysis of political, economic, and socio-cultural influences on the decision-making behavior of individuals, groups, and nation-states in world affairs; data collection, interpretation, and prescription. Extra fee required.

**I R 632 Regional Economic Communities (4)**

*Prerequisites:* ENG 214 and IR 104, upper division standing or consent of instructor. Political economy of economic integration in the South (African Economic Community, MERCOSUR, Andean Community, Caribbean ASEAN) in light of the European Union, and the fundamental tension between economics and politics.

**I R 635 Economics of Globalization (3) [GE]**

*Prerequisites:* ECON 100, ECON 101, or consent of instructor. Cross listed with ECON 635. For course description, see ECON 635. (May not be repeated under alternate prefix.)

**I R 640 Field Study in International Relations (1-5)**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Practical and academic experience in a non-classroom setting, requiring the utilization of research and communication skills in a topic relevant to the study of international relations. May be repeated for a total of 10 units.

**I R 685 Projects in the Teaching of I R (1-4)**

*Prerequisites:* I R major with successful completion of I R 104 and 308 (minimum 3.0 in instructionally related course); consent of instructor. Reading and discussion in the teaching of international relations. Responsibilities include working with supervising faculty member in preparing course materials, tutoring students, and conducting small discussion sections.

**I R 699 Special Study (1-4)**

*Prerequisites:* consent of major adviser, supervising faculty member, and department chair. Study is planned, developed, and completed under the direction of a member of the departmental faculty. Open only to students who have demonstrated ability to do independent work. Enrollment by petition.

**Graduate Courses****I R 708 College Teaching of IR (3)**

*Prerequisites:* graduate standing in IR; completion of instructionally related course with B or better; consent of instructor. Reading and discussion in teaching of international relations. Responsibilities include working with supervising faculty member in preparing course materials, tutoring students, and conducting small discussion sections. May be repeated for a total of 4 units.

**I R 720 Theory and Approaches in International Relations (3)**

Seminar in the theories and approaches to the study of international relations. Required of all graduate students in first semester of graduate study. Extra fee required.

**I R 725 The Analysis of Foreign Policy (3)**

Foreign policy analysis, research, and oral and written briefing techniques. Required of all International Relations master's degree candidates.

**I R 726 Intelligence and Foreign Policy (3)**

*Prerequisite:* Graduate standing or consent of instructor. Intelligence is a key component in the formulation of foreign policy. Review of what constitutes national intelligence; examine the tension between policymakers and intelligence analysts through the use of case studies and readings.

**I R 728 International Political Economy (3)**

*Prerequisites:* graduate status and I R 302, I R 720, or consent of instructor. International political economy: in-depth consideration of alternative theories—globalization vs. nation-states, World Trade Organization and regional trading blocs, transnationals, International Monetary Fund and global finance, investment and inequality, environment, trade and development, future scenarios.

**I R 731 Politics of Multinational Corporations (3)**

*Prerequisite:* IR 720 and IR 728, or consent of instructor; graduate standing. Interdisciplinary examination of one of the most salient actors in the international political economy, the multinational corporations (MNC). The power of MNCs, the effect of MNCs on host countries, and the governance of MNCs.

**I R 735 Seminar in Global Environmental Policy (3)**

*Prerequisites:* graduate status and I R 720. International/global policy making process and responses to critical environmental problems confronting the world as well as underlying causes such as population explosion and energy consumption. Policy choices, negotiating strategies, and outcomes. (Cross listed with GEOG 735. May not be repeated under alternate prefix.)

**I R 736 International Development and Globalization (3)**

*Prerequisites:* Graduate standing and I R 720 or equivalent. Colonial legacies, economic strategies, contemporary challenges in the former Third World; contrasting theories of development and globalization; feminist and ecological critiques; roles of the World Bank, IMF, and WTO, transnational corporations, new global forums and social movements "from below". (Cross listed with S S 736. May not be repeated under alternate prefix.)

**I R 737 Seminar in Regional Economic Communities (3)**

*Prerequisite:* IR 720. Political economy of economic integration of the African Economic Community, MERCOSUR, Andean Community, Caribbean ASEAN in light of the European Union, and the fundamental tension between economics and politics.

**I R 738 Contemporary International Legal Issues (3)**

*Prerequisites:* graduate standing in IR or upper division standing in IR with consent of instructor. Introduces fundamentals of international public law: sources, subjects, sovereignty, jurisdiction, immunity, and responsibility of states. Provides thorough analysis of recent substantial and institutional development in the fields of the environment, trade, use of force, and universal crimes. (Intended for majors only.)

**I R 739 International Security (3)**

*Prerequisite:* consent of instructor. The major theories, problems, and case studies of international security in the past cold war; concentrating on the security interests of the leading states; such as, the U.S., Russia, China, Japan, and Europe as they face today's challenges.

**I R 741 Africa (3)**

*Prerequisites:* graduate status and I R 720. Examines African development as a context and concern for contemporary foreign policy of selected African nation-states. Students are required to do individual research and contribute to the general discussion.

**I R 742 Seminar on American Foreign Policy (3)**

*Prerequisites:* graduate status and I R 720. Reading and research seminar dealing with varying approaches to U.S. diplomacy and culminating in a research paper on American policy toward some major problem, nation, or area.

**I R 743 Seminar in Chinese Foreign Policy (3)**

*Prerequisite:* IR 720 and IR 725, or consent of instructor; graduate standing. Configuration, causes, and consequences of Chinese foreign policy (FP). Key actors and events, and the diverse instruments that China has used or is using to achieve its FP objectives

**I R 744 Current European Politics (3)**

*Prerequisites:* graduate status and I R 720. Investigation of European nation states and the development of supranational institutions, processes and politics in the European Union. Individual research and seminar discussion.

**I R 745 Latin America (3)**

*Prerequisites:* graduate status and I R 720. The leitmotif of contemporary Latin American relations--the struggle for development. Within the context of specific case studies, examines how domestic and international forces affect national development efforts.

**I R 746 The Middle East (3)**

*Prerequisites:* I R 323, 324, or consent of instructor; graduate status and I R 720. Contemporary international relations among Arab countries, including Maghreb states, and between region and outside countries and blocs. Case studies of continuing penetration of area by imperialism, competing changing faces, and different characters of such forces.

**I R 747 Russia and the West (3)**

*Prerequisite:* I R 720. Russia's relations with the West in historical, economic, political and military settings.

**I R 749 Asia and the World System (3)**

*Prerequisite:* I R 720. Principal Asia-Pacific states: economic, political, and military issues in the region. Readings on China, Japan, Taiwan, the Koreas, S.E. Asia, India, with Europe, the U.S., and Russia as factors.

**I R 750 Methods and Thesis Selection in International Relations (3)**

*Prerequisite:* I R 720. Seminar designed to introduce international relations graduate students to the range of methods of analysis in the field and to require students to select their thesis topics. Required of all students in their second semester of study.

**I R 751 Alternative Research Methods in International Relations (4)**

*Prerequisites:* IR 720. Examines a variety of research methods that will enable students to test hypotheses. Students will learn how to acquire and organize data in various formats to contribute to scholarship. The course will include quantitative methods.

**I R 758 Management of NGOs in an International Context (3)**

*Prerequisite:* graduate standing or consent of instructor. Cross listed with PA 749. For course description, see PA 749. (May not be repeated under alternate prefix.)

**I R 892 Sponsored Graduate Internship in International Relations (3)**

*Prerequisites:* IR 720 and graduate status. On- or off-campus internship. Requires approved proposal, daily log, and major paper connecting experience to international relations theory. CR/NC grading only. (Formerly IR 850.)

**I R 898 Master's Thesis (3)**

Student conducts, under committee supervision, research and writing of thesis from topic within field of international relations. Defense of thesis by committee examination is required. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**I R 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser, supervising faculty member, and department chair. Study is planned, developed, and completed under the direction of a member of the departmental faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**ITALIAN***Undergraduate Courses*

*All upper division courses are conducted in Italian.*

**ITAL 101 First Semester Italian (5) [GE]**

Understanding, speaking, reading, and writing Italian and Italian culture; language as a communicative medium and carrier of culture.

**ITAL 102 Second Semester Italian (5) [GE]**

*Prerequisite:* ITAL 101 or equivalent. Continuation of ITAL 101.

**ITAL 103 Third Semester Italian (3) [GE]**

*Prerequisite:* ITAL 102 or equivalent. Reinforcement of language structure; literary styles and techniques in Italian.

**ITAL 104 Fourth Semester Italian (3) [GE]**

*Prerequisite:* ITAL 103 or equivalent. Selected reading material in Italian literature.

**ITAL 206 Italian Conversation (3) [GE]**

*Prerequisite:* ITAL 102 or equivalent. Development of listening and speaking skills through vocabulary exercises, conversation, and oral reports based on aspects of contemporary Italian culture. May be taken concurrently with ITAL 103 or 104.

**ITAL 305 Advanced Grammar and Composition (3) [GE]**

*Prerequisite:* ITAL 104 or equivalent. Analysis of grammatical constructions. Exercises in style.

**ITAL 350 Advanced Oral and Reading Practice (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Expansion of ability to read and interpret selected plays, poems, and prose writings. May be repeated once when material changes.

**ITAL 401 Italian Culture and Civilization (3) [GE]**

*Prerequisite:* ITAL 104 or equivalent. Background for literature.

**ITAL 510 Italian Literature: Early Period (3) [GE]**

*Prerequisite:* ITAL 104 or equivalent. Literature from its origins to the middle of the 16th century. Representative works and movements.

**ITAL 511 Italian Literature: Late Period (3) [GE]**

*Prerequisite:* ITAL 104 or equivalent. Literature from the middle of the 16th century to the present. Representative works and movements.

**ITAL 530 Italian Renaissance Literature (3) [GE]**

*Prerequisites:* ITAL 510 and 511. Topic to be specified in Class Schedule. Prose and poetry of Italian Renaissance. May be repeated when topics vary.

**ITAL 550 The Italian Theater (3) [GE]**

*Prerequisites:* ITAL 510 and 511 or equivalent. Plays selected from playwrights from Renaissance to today, studied and interpreted as salient points of history of theatre. Paired with ITAL 850. Students who have completed ITAL 550 may not take ITAL 850 later for credit.

**ITAL 560 The Italian Novel (3) [GE]**

*Prerequisites:* ITAL 510 and 511 or equivalent. Trends as seen through the works of Manzoni, Nievo, Verga, D'Annunzio, Svevo, and writers of the present period.

**ITAL 570 Italian Women Writers--13th to 20th Centuries (3) [GE]**

*Prerequisites:* ITAL 510 and 511 or equivalent or consent of instructor. Selections of prose and poetry by Italian women writers from the 13th to the 20th century: from Compiuta Donzella to the 1926 Nobel prize winner, Grazia Deledda, and the major novelists of the modern period. Paired with ITAL 870. Students who have completed ITAL 570 may not take ITAL 870 later for credit.

**ITAL 580 Great Figures in Italian Literature (3) [GE]**

*Prerequisites:* ITAL 510 and 511 or equivalent. Topic to be specified in Class Schedule. May be repeated when different authors are studied.

**ITAL 600 Italian Literature on Film in English - GVAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C- or better; Italian major. Comparative analyses of cinematic and literary narrative texts, both of which focus on seminal moments in Italian historical and cultural development from peasant society in the 19th century to urban criminal organization in the early 21st century. [Taught in English.] Paired with ITAL 800. Students who have completed ITAL 800 may not take ITAL 600GW for credit. (ABC/NC grading only)

**ITAL 699 Special Study (1-3)**

*Prerequisite:* ITAL 104 or equivalent. Intensive concentration upon special topics in Italian. Written projects requiring critical analysis, and interpretation of linguistic or literary problems. Material adapted to individual needs and interests. May be repeated.

*Graduate Courses***ITAL 800 Italian Literature on Film in English (3)**

*Prerequisites:* ENG 416 and graduate status or consent of instructor. Paired with ITAL 600. For course description, see ITAL 600. Students who have completed ITAL 800 may not take ITAL 600 for credit. (ABC/NC grading only)

**ITAL 830 Seminar: Italian Literature of the 19th Century (3)**

*Prerequisite:* admission to Italian program or consent of instructor. Romanticism, Risorgimento, and Verismo, particularly as they affect literary problems of the 20th century and the search for a national language.

**ITAL 850 The Italian Theater (3)**

*Prerequisites:* ITAL 510 and 511; admission to Italian program or consent of instructor. For course description, see ITAL 550. Paired with ITAL 550. Students who have completed ITAL 850 may not take ITAL 550 for credit.

**ITAL 870 Italian Women Writers--13th to 20th Centuries (3)**

*Prerequisites:* ITAL 510 and 511 or equivalent or consent of instructor. For course description, see ITAL 570. Paired with ITAL 570. Students who have completed ITAL 870 may not take ITAL 570 for credit.

**ITAL 880 Seminar: Individual Authors (3)**

*Prerequisite:* admission to Italian program or consent of instructor. Author or authors to be specified in Class Schedule. May be repeated when different authors are studied.

**ITAL 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member; admission to Italian program or consent of instructor. Study is planned, developed, and completed under the direction of a member of the department faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**JAPANESE***Undergraduate Courses*

All upper division courses, except JAPN 600, are conducted in Japanese.

**JAPN 101 First Semester Japanese (5) [GE]**

Understanding, speaking, reading, and writing modern Japanese.

**JAPN 102 Second Semester Japanese (5) [GE]**

*Prerequisite:* JAPN 101 or equivalent. Continuation of JAPN 101.

**JAPN 103 Third Semester Japanese (5) [GE]**

*Prerequisite:* JAPN 102 or equivalent. Intermediate level modern Japanese.

**JAPN 200 Art of Japanese Writing and Calligraphy (3) [GE]**

Nature and composition of the two Japanese writing systems, Hiragana and Kanji, and their aesthetic expression in different styles of calligraphy. Knowledge of Japanese not required.

**JAPN 250 Intensive Study of Kanji (3) [GE]**

*Prerequisite:* JAPN 101 or equivalent. Individualized study of Kanji. May be repeated for credit to attain level to 1000 Kanji characters. Level 3 is highly recommended for Japanese B.A. majors. Open to all students.

**JAPN 301 Japanese Conversation (3) [GE]**

*Prerequisite:* JAPN 103 and 250 or equivalent. Developing aural-oral skills for conversations at different social levels and situations.

**JAPN 302 Japanese Reading and Grammar (3) [GE]**

*Prerequisites:* JAPN 103 and 250 or equivalent. Reading modern Japanese. Structural analysis and vocabulary development.

**JAPN 305 Advanced Conversation and Composition I (3) [GE]**

*Prerequisites:* JAPN 301 and 302 or equivalent. Grammatical analysis. Rhetoric. Oral and written exercises.

**JAPN 306 Advanced Conversation and Composition II (3) [GE]**

*Prerequisites:* JAPN 301 and 302 or equivalent. Continuation of JAPN 305. Grammatical analysis. Rhetoric. Oral and written exercises.

**JAPN 309 Advanced Readings in Japanese (3) [GE]**

*Prerequisites:* JAPN 301 and 302 or equivalent. Reading modern literary, journalistic, and expository writings.

**JAPN 330 Proverbs and Idiomatic Expressions in Japanese (3) [GE]**

*Prerequisite:* JAPN 103 or equivalent. The most commonly used proverbs and idiomatic expressions in Japanese.

**JAPN 390 Business Japanese (3) [GE]**

*Prerequisites:* JAPN 301 and 302 or equivalent. Japanese business communication skills. Readings in economics, politics, and social issues.

**JAPN 395 Advanced Business Japanese: Business Writing (3) [GE]**

*Prerequisites:* JAPN 250, 301, and 302 or equivalent. Formats necessary for business writing in Japanese and intensive training in reading and writing business documents.

**JAPN 401 Topics in Japanese Culture (3) [GE]**

*Prerequisites:* JAPN 301 and 302 or equivalent. Topic to be specified in Class Schedule. May be repeated when different topics are studied.

**JAPN 510 Modern Japanese Literature (3) [GE]**

*Prerequisites:* JAPN 250 (Level 3 of Kanji), 301, 302, 305 or 306, and 309, or equivalent. Literary movements and major works of 20th century Japan.

**JAPN 590 Topics in Japanese Literature (3) [GE]**

*Prerequisites:* JAPN 250 (Level 3 of Kanji), 301, 302, 305 or 306, and 309, or equivalent. Topic to be specified in Class Schedule. May be repeated for a total of 9 units when different writers or topics are studied.

**JAPN 600 Topics in Japanese Culture and Literature in English (3)**

Topic to be specified in Class Schedule. Open to all students. Will not count toward a major or minor in Japanese. May be repeated when topics vary.

**JAPN 690 Introduction to Consecutive Interpretation (3) [GE]**

*Prerequisites:* near native fluency in English or Japanese and advanced level knowledge of the other. Acquisition of skills in consecutive interpretation between Japanese and English in international business, manufacturing, and tourism.

**JAPN 699 Special Study (1-3)**

*Prerequisites:* consent of department chair and instructor. Written projects requiring critical analysis and interpretation of linguistic or literary problems. Material adopted to individual needs and interests. May be repeated.

*Graduate Courses***JAPN 710 Japanese Language Workshops (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**JAPN 750 Seminar in Japanese Linguistics (3)**

*Prerequisite:* JAPN 325 or equivalent. Phonological, morphological, and semantic features of Japanese: current research and problems.

**JAPN 760 Seminar in Pedagogical Japanese Linguistics (3)**

*Prerequisite:* JAPN 325 or equivalent. Problem areas of phonological, grammatical, and discourse structures of Japanese from a learning/teaching point of view.

**JAPN 765 Second Language Acquisition (3)**

*Prerequisite:* graduate status or consent of instructor. Second language acquisition and learning; emphasis on learning Japanese as a second language.

**JAPN 770 Seminar in Teaching Japanese (3)**

*Prerequisite:* JAPN 750 or 760 or equivalent. Analysis of available text materials and audio-visual aids for teaching Japanese. Instructional methods, techniques, and material for effective teaching.

**JAPN 775 Seminar: Materials Development for Teaching Japanese (3)**

*Prerequisites:* JAPN 325; JAPN 770 highly recommended. Application of linguistic and pedagogical theories and principles to the development of materials for Japanese classes.

**JAPN 780 Practicum in Teaching Japanese (3)**

*Prerequisites:* JAPN 750, 760, and 770 or consent of instructor. Application of linguistic and pedagogical knowledge to actual teaching of Japanese. CR/NC grading only.

**JAPN 800 Seminar in Analysis of Japanese Cultural Studies (3)**

Recent trend of cultural studies of Japan: focus, method, and purpose of each work and their possible interrelations.

**JAPN 860 Seminar: Topics in Japanese Literature (3)**

*Prerequisite:* graduate status or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**JAPN 890 Integrative Seminar: Japanese Language and Culture (3)**

*Prerequisite:* graduate status or consent of instructor. Examination of Japanese language to study how it may reflect Japanese people's way of thinking, their relationship with one another and with nature, and their attitude about the place and role of individuals in society.

**JAPN 895 Applied Research Project (3)**

*Prerequisite:* advancement to candidacy for the Master of Arts in Japanese. Graduate Approved Program and Proposal for Culminating Experience forms must be approved by the Graduate Division before registration. CR/NC grading only.

**JAPN 897 Research (1-3)**

*Prerequisite:* JAPN 895 or 898 with SP grade. Required of all students who have not completed the master's thesis or research project. May be repeated but units may not be counted toward the degree program. CR/NC grading only.

**JAPN 898 Master's Thesis (3)**

*Prerequisite:* advancement to candidacy for the Master of Arts in Japanese. Graduate Approved Program and Proposal for Culminating Experience forms must be approved by the Graduate Division before registration. CR/NC grading only.

**JAPN 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser and the supervising faculty member. Study is planned, developed, and completed under the direction of a member of the faculty. Open only to advanced graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**JEWISH STUDIES***Undergraduate Courses***JS 151 First Semester Modern Hebrew (3) [GE]**

Understanding, speaking, reading, and writing the modern Hebrew language; elements of Israeli and Jewish culture. Acquisition of communicative skills in situation/cultural contexts. (Formerly JS 101.) (Cross listed with HEBR 151. May not be repeated under alternate prefix.)

**JS 152 Second Semester Modern Hebrew (3) [GE]**

*Prerequisite:* JS 151 or equivalent. Continuation of first semester modern Hebrew. (Formerly JS 102.) (Cross listed with HEBR 152. May not be repeated under alternate prefix.)

**JS 201 Third Semester Modern Hebrew (3) [GE]**

*Prerequisite:* HEBR/JS 152 or equivalent. Continuation of modern Hebrew at the intermediate level. (Cross listed with HEBR 201. May not be repeated under alternate prefix.)

**JS 202 Fourth Semester Modern Hebrew (3) [GE]**

*Prerequisite:* JS 201 or equivalent. Continuation of modern Hebrew at the intermediate level. (Cross listed with HEBR 202. May not be repeated under alternate prefix.)

**JS 280 Introduction to Jewish Studies (3)**

*Prerequisite:* ENG 114 or equivalent. Foundational beliefs, stories, and practices of the Jewish religious tradition; various transformations the tradition has undergone throughout history and into the modern period. (Formerly JS 300)

**JS 301 Judaism, An Introduction (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Explores religious and cultural practices of Judaism in United States by surveying religious practices of Orthodox, Conservative, Reform, and Reconstructionist Jewish congregations. Relates these practices to Jewish experience and history. (Formerly JS 270)

**JS 317 The Holocaust and Genocide (3) [GE]**

*Prerequisites:* ENG 214 or equivalent, and upper division standing or consent of instructor. Cross listed with HIST 317. For course description, see HIST 317. (May not be repeated under alternate prefix.)

**JS 340 American Jewish Identity and Family (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Changing nature of Jewish family life within the American experience. Legacies of immigration and anti-semitism on families as well as issues of Jewish identity and diverse Jewish family forms. [CSL may be available; consult index for page reference.]

**JS 350 Jewish Social Responsibility (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. A 2,000 year history of a people commanded to repair the world. From Biblical sources defining the nature of poverty to contemporary philosophical debates on issues as varied as social inequality and care for the environment. [CSL may be available; consult index for page reference.]

**JS 377 Jerusalem (3) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Cross listed with HUM 377. For course description, see HUM 377. (May not be repeated under alternate prefix.)

**JS 378 Beyond the Bagel (3)**

*Prerequisite:* ENG 214 or equivalent. Explores "food" in Jewish culture from Bible to current Jewish communities, including Israeli fusion food, and Jewish-American cuisine. By analyzing "authenticity and purity" in Jewish kitchens, students learn literature, folklore of Jewish cooking.

**JS 405 Film and the Holocaust (3)**

*Prerequisites:* upper division standing or consent of instructor. Cross listed with CINE 305. For course description, see CINE 305. (May not be repeated under alternate prefix.)

**JS 408 Israeli Cinema (3)**

*Prerequisite:* ENG 214 or equivalent. Survey of Israeli cinema with critical readings. (Cross listed with CINE 408. May not be repeated under alternate prefix.)

**JS 410 Kabbalah and Mysticism in the Jewish Tradition (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. The spiritual life and various ways in which Jews have sought spiritual resources from Jewish tradition. Topics include: Kabbalah, Jewish renewal, feminist spirituality, grieving the Holocaust. (Cross listed with PHIL 514. May not be repeated under alternate prefix.)

**JS 414 Arendt and Heidegger (3)**

*Prerequisite:* first-year composition or consent of instructor. Cross-listed with HUM/PHIL 434. For course description, see HUM 434. (May not be repeated under an alternate prefix.)

**JS 415 The Hebrew Bible (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. The Hebrew Bible in English translation from historical, literary, and religious points of view; culture and religion of ancient Israel and the ancient Near East. (Cross listed with PHIL 415. May not be repeated under alternate prefix.)

**JS 416 Special Topics in Jewish Studies (1-3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in Class Schedule. May be repeated for a total of 6 units as topics vary.

**JS 417 Judaism as Sacred Theatre (3)**

*Prerequisite:* ENG 214 or equivalent. Jewish ritual observance and its relation to Jewish theology in our contemporary culture.

**JS 425 Judaism: Religion and Text (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. The manner and process of external/internal influences that move Jewish thought; the matters with which the rabbis and particular Jewish philosophers have concerned themselves. (Cross listed with PHIL 552. May not be repeated under alternate prefix.)

**JS 430 Israeli Democracy: Politics, Institutions, and Society (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Knowledge of Israel's political system, its origins, its formal structure, to how it functions, and its main attributes in comparison to other democratic political systems. Ideology, state and religion, and civil liberties. (Cross listed with IR/PLSI 430. May not be repeated under alternate prefix.)

**JS 437 Holocaust and Literature (3) [GE]**

*Prerequisite:* ENG 214. Fiction and non-fiction Holocaust literature by Saul Bellow, T. Borowski, Etty Hillesum, I.B. Singer, and Elie Wiesel. (Cross listed with ENG 533/CWL 437. May not be repeated under an alternate prefix.)

**JS 449 American Jewish History (3)**

*Prerequisite:* ENG 114 or equivalent. American Jewish History from 1654 to the present. Traces social, political, religious and economic history of Jews in colonial America and the United States. Topics: influence of government, immigration, religion, anti-Semitism, regionalism, acculturation. (Cross listed with HIST 449. May not be repeated under alternate prefix.)

**JS 451 Jewish Literature of the Americas (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Explores literatures of the Americas through the lens of Jewish identity and tradition. Texts in translation from Latin America, Canada, and the US reveal how Jewish writers have rethought modernity's intersection with Jewish traditions. (Cross listed with CWL/ENG 451. May not be repeated under alternate prefix.)

**JS 477 Topics in Israel Studies (3)**

*Prerequisite:* ENG 214 or equivalent. Advanced nuanced analysis of topics in Israel Studies. May be repeated as topics vary. Topic will be specified in Class Schedule. Topic descriptions may be found in the online Bulletin.

**JS 480 European Jewish Writers (3)**

*Prerequisite:* ENG 214 or equivalent. Survey of the works of modern Jewish writers throughout Europe between the nineteenth- and twentieth-centuries; influence of the Jewish Enlightenment on modern Jewish literatures.

**JS 485 Modern Israeli Literature (3)**

*Prerequisite:* ENG 214 or equivalent. Survey of the works of modern Israeli writers of fiction, poetry, and drama; conceptual underpinnings of modern Israeli aesthetic projects in literature; how Israel's multilingual heritage marks the modern writer.

**JS 501 Judaism, Christianity, and Islam (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Beliefs, practices, social organization, and history of the three monotheistic religious traditions; importance of these traditions for European and Middle Eastern civilizations. (Cross listed with PHIL/HUM 501. May not be repeated under alternate prefix.)

**JS 516 Bible and Ethics: The Moral of the Story (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. The Hebrew Bible as a source for ethics and literature. Women, men, sex, sin, and sacrifice in both classic texts and in contemporary literature. (Also offered as PHIL 551. May not be repeated under an alternate prefix.)

**JS 530 Yiddish Literature, History, and Society (3)**

*Prerequisite:* ENG 214 or equivalent. Examination of Yiddish literature, history, culture, and society in Europe, America, and Israel through Yiddish fiction, poetry, and theater, as well as journalism, political writing, philosophy, and religion.

**JS 540 Anti-Semitism (3)**

*Prerequisite:* ENG 214 or equivalent. Survey of the historical, political, cultural, and religious contexts and manifestations of anti-Semitism. Examines its different forms and trajectories and evaluates its effects on both Jews and non-Jews and Jewish and non-Jewish societies.

**JS 546 20th Century American Jewish Women Writers (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with WGS/ENG 546. For course description, see ENG 546. (May not be repeated under alternate prefix.)

**JS 550 Good and Evil: Jewish Ethics and Contemporary Social Problems (3)**

*Prerequisite:* ENG 114 or equivalent. The problem of good and evil in contemporary and private life; explores in particular how citizenship and character are shaped by Jewish ethics and morality.

**JS 560 The Arab-Israeli Conflict (3)**

*Prerequisite:* ENG 114 or equivalent. Examination of causes of the Arab-Israeli conflict; beginnings in the late nineteenth century; Jewish-Palestinian confrontation during the British Mandate (1917-1948); Arab-Israeli wars since 1948; Israeli-Palestinian confrontation since 1948; attempts to end the confrontation since 1967. (Cross listed with I R 530. May not be repeated under alternate prefix.)

**JS 571 Fathers and Sons in Jewish Literature (3)**

*Prerequisite:* ENG 214. The relationships, complexities, identities, conflicts, and passions of Jewish fathers and sons as they are reflected in fiction and memoirs.

**JS 600 Internship (3)**

*Prerequisite:* consultation with program director. Supervised work in the setting of a Jewish communal organization or an institution serving Jewish clients. Paired with JS 800. Students who have completed JS 600 may not take JS 800 later for credit. [CSL may be available; consult index for page reference.]

**JS 632 Jewish History I: Beginnings to 1650 (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Jewish history from the sixth century B.C.E. to the rise of European modernity. Politics, culture, and religion under empires of Persia, Hellenism, and Rome, and in medieval diasporas of Europe and lands of Islam. (Cross listed with HIST 632. May not be repeated under alternate prefix.) (Formerly JS 320/HIST 635.)

**JS 633 Jewish History II: 1650 to Present (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Jewish history from 1650 to present. Central theme is the encounter of traditional ethnic and religious minority with modernity. Topics: emancipation, antisemitism, immigration, Zionism, Israel, America, Holocaust. (Cross listed with HIST 633. May not be repeated under alternate prefix.)

**JS 699 Special Study (1-3)**

Individual supervision of intensive independent work on a particular problem or subject in Jewish studies chosen by the student.

**Graduate Courses****JS 741 The Holocaust and Postwar Germany in English (3)**

*Prerequisite:* graduate standing or consent of instructor. Cross listed with GER/HIST 741. For course description, see GER 741. (May not be repeated under alternate prefix.)

**JS 800 Internship (3)**

*Prerequisites:* admission to certificate program and consultation with program director. For course description, see JS 600. Paired with JS 600. Students who have completed JS 800 may not take JS 600 later for credit. May be repeated once. [CSL may be available; consult index for page reference.]

**JOURNALISM****Undergraduate Courses****JOUR 200 Journalism and Mass Media (3)**

*Prerequisite:* journalism major or minor. History, social role, function, and organization of the print and broadcast media. Emphasis on newspapers and magazines. (Plus-minus letter grade only.)

**JOUR 205 Social Impact of Journalism (3) [GE]**

History, organization, social role and function of journalism.

**JOUR 221 Newswriting (3)**

*Prerequisites:* ENG 214 or equivalent with grade of C or better; typing skills 25 wpm; concurrent enrollment in JOUR 222 for fall 2009 admitted students; sophomore standing; journalism major or minor. Development of news judgment and clear writing skills. Grade of C or better required to continue to JOUR 300. (Plus-minus letter grade only.)

**JOUR 222 Newswriting Lab (1)**

*Prerequisite:* ENG 214 or equivalent with grade of C or better; typing 25 wpm; concurrent enrollment with JOUR 221 for fall 2009 admitted student; journalism major or minor. (Plus-minus letter grade only.) Associate Press style writing, English grammar, and punctuation.

**JOUR 225 Digital Skills for News (1)**

For Journalism majors/minors only. Journalism-related computer skills: operating systems, online research, design, spreadsheets, web pages, system networking. Analysis of digital technology impact on news gathering and communication. CR/NC grading only.

**JOUR 226 Digital News Gathering (3)**

*Prerequisite:* JOUR 205 or equivalent and JOUR 221 with grade of C or better; journalism major or minor. Development of multimedia skills, online research and analysis, and other components of multimedia storytelling. (Plus-minus letter grade only.)

**JOUR 235 Photojournalism I (3)**

*Prerequisite:* journalism pre-major, major or minor; sophomore or upper division standing. Photojournalistic style and content. Taking pictures of people, telling stories, conveying information. Must have interchangeable lens digital camera. Extra fee required. (Plus-minus letter grade only.)

**JOUR 300 Reporting - GVAR (3)**

*Prerequisite:* journalism major or minor; ENG 214 or equivalent, JOUR 205, JOUR 221, and JOUR 222 with a grade of C or better; SEG I, II, US History and Government. Advanced concepts of news gathering, interviewing, and writing. Cover San Francisco and Oakland neighborhoods. Need a C grade or better to continue to advanced courses. (ABC/NC grading only.)

**JOUR 301 History of Journalism (3)**

*Prerequisite:* journalism major or minor; upper division standing. Evolution of journalism and media from print revolution to present. Development of newspapers, magazines, books, and broadcast media. First Amendment and how journalism is shaped technical, legal, political constraints and traditions. (Plus-minus letter grade only.)

**JOUR 305 Mass Communication Law (3)**

*Prerequisite:* journalism major or minor; upper division standing. Media responsibility laws, legal problems in practical context; libel, contempt, constitutional guarantees, access to public records, invasion of privacy, criticism, and copyright. (Plus-minus letter grade only.)

**JOUR 307 News Media Law and Ethics (3)**

*Prerequisite:* journalism major or minor; upper division standing. News media law and ethics using studies and practical application in journalism; access to public records, constitutional guarantees, ethical responsibilities in reporting, and publications of stories. (Plus-minus letter grade only.)

**JOUR 320 Investigative Reporting (3)**

*Prerequisite:* JOUR 300 with a grade of C or better; journalism major or minor. Problems and methodology of investigative journalism; techniques of documentation; from theory to practical application. Grade of C or better required to continue to JOUR 609. (Plus-minus letter grade only.)

**JOUR 321 Feature Writing (3)**

*Prerequisite:* JOUR 300 with a grade of C or better or consent of instructor; journalism major or minor. Theory and practice of writing newspaper and magazine stories. Definition of a feature; topics, interviewing techniques, deadline writing; freelancing. Grade of C or better required to enroll in JOUR 609. (Plus-minus letter grade only.)

**JOUR 330 Editing (3)**

*Prerequisite:* JOUR 205, JOUR 221, and JOUR 222 with a grade of C or better; SEG I & II; US History; concurrent enrollment in JOUR 300; journalism major or minor. Theory and practice of editing; fundamental copy editing, rewrite and layout techniques, headline writing, restructuring, and trimming; story ideas and assignments; page design concepts. (Plus-minus letter grade only.)

**JOUR 335 Photojournalism II (3)**

*Prerequisite:* JOUR 235 with a grade of C or better; journalism major or minor. Components of photojournalism; portrait, sports, feature, news, and picture story to create portfolio. Must have interchangeable lens digital camera. Extra fee required. (Plus-minus letter grade only.) [CSL may be available; consult index for page reference.]

**JOUR 336 Visual Storytelling (3)**

*Prerequisite:* JOUR 205 and JOUR 221 (or equivalent) with C grade or better. How visual imagery shapes perception of news; power of photography, graphics and design to communicate journalistically in print and on-line. When images convey more than words; when images mislead.

**JOUR 395 Introduction to Online Journalism (3)**

*Prerequisites:* JOUR 300 with grade of C or better or consent of instructor; journalism major or minor. Multimedia production for journalists; creation of electronic outlet of text, sound, archived video, and graphics for news. Extra fee required. (Plus-minus letter grade only.)

**JOUR 409 Directed Study in Journalism (1-3)**

*Prerequisite:* consent of instructor or department. Individual projects: research, investigations, depth reporting, writing, graphics, surveys, audience studies, and internships. May be repeated for a total of 6 units with consent of department.

**JOUR 435 Photojournalism III (3)**

*Prerequisite:* JOUR 221, JOUR 300, and JOUR 335 with grade of C or better or consent of instructor; journalism major or minor. Picture story concepts and development. Photojournalism legal and ethical issues. Must own camera and media file. Lab fee required. (Plus-minus letter grade only.)

**JOUR 450 Publication Design and Graphics (3)**

*Prerequisite:* JOUR 221 with a grade of C or better or consent of instructor. Editorial design and production for newspapers and magazines; design as support for message. Vocabulary, concepts, and skills of editorial designer and photo editor with migration to internet and web. Extra fee required.

**JOUR 452 International Media Politics (4)**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Cross listed with IR 452. For course description, see IR 452. (May not be repeated under alternate prefix.)

**JOUR 500 Contemporary Magazines (3)**

*Prerequisite:* upper division standing or consent of instructor; journalism major or minor. Development and role of contemporary magazine; rise of specialized periodicals. Magazine start-ups, dynamics of editorial strategy and planning; editing, design, and short article writing. (Plus-minus letter grade only.)

**JOUR 535 Photojournalism IV (3)**

*Prerequisite:* JOUR 335 with grade of C or better. Advanced photojournalism color and lighting techniques, including operation of portable and studio strobes. Photo illustrations and food and fashion pictures. Must provide camera and film. Extra fee required.

**JOUR 536 Latina/o Journalism (3)**

*Prerequisite:* RAZA 530. Cross listed with LTNS 536 [formerly RAZA 536]. For course description, see LTNS 536. (May not be repeated under an alternate prefix.) [CSL may be available; consult index for page reference.]

**JOUR 560 Public Journalism (3)**

*Prerequisite:* JOUR 300 with grade of C or better. Examination of failure of news media to provide accurate and substantive coverage of poor communities and communities of color. Students learn public journalism practices and techniques to engage communities to find solutions and to participate in the democratic process. [CSL may be available; consult index for page reference.]

**JOUR 570 Opinion Writing (3)**

*Prerequisites:* JOUR 221 and 300 with grade of C or better; journalism major or minor. Principles and techniques of effective column and op-ed writing. Strategies for getting published. Emphasis on research and critical thinking. History and importance of editorial writing versus news coverage. (Plus-minus letter grade only.)

**JOUR 575 Community Media (3)**

*Prerequisites:* JOUR 221 and 300 with grades of C+ or better. Students will gain experience producing stories for community news outlets, ethnic news outlets, hyperlocal sites, niched-oriented news in Bay Area. Explore the value, relevance and role of these alternative media publications.

**JOUR 595 Magazine Writing (3)**

*Prerequisite:* JOUR 221 and 300 with grade of C or better; journalism major or minor. Principles and techniques of magazine writing, developing, researching, and writing factual articles. Markets and steps necessary to get published. Grade of C or better necessary to continue to JOUR 609.

**JOUR 600 Skills and Issues Seminar (1)**

*Prerequisite:* consent of instructor or department. Seminar includes varying topics in specialized journalism skills and issues in photography, writing, reporting, editing, design, management, and production. May be repeated when topics vary. CR/NC grading only.

**JOUR 608 News Bureau Publication Lab (3)**

*Prerequisite:* JOUR 609 with grade of C or better; or consent of instructor; journalism major or minor. News bureau; planning, reporting, editing, and fact-checking; shooting photos for publication in San Francisco area newspapers. May be repeated for 6 units for degree credit. (Plus-minus letter grade only.)

**JOUR 609 Publication Laboratory (3)**

*Prerequisites:* For writers: JOUR 221, JOUR 300, and one advanced writing course, each with grade of C or better. For photographers: JOUR 221, JOUR 235, and JOUR 335, each with grade of C or better; or consent of instructor; journalism major or minor. Reporting, writing, photography, editing, producing print and on-line publication. Extra fee required. May be repeated for a total of 6 units for degree credit. (Plus-minus letter grade only.)

**JOUR 610 Cultural Diversity and News Media (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Explores how the practice of news gathering influences social reality. Explores issues facing U.S. news media as they struggle to understand an increasingly diverse society. Historical overview of the problem and discussion on current obstacles facing journalists' efforts to improve coverage and newsroom representation.

**JOUR 617 Journalism Internship (3)**

*Prerequisite:* Grade of C or better in JOUR 609; journalism major or minor. Credit for department approved journalism internship with employers in the news, magazine or online industry. Course is an option to second semester of JOUR 609. (CR/NC only.)

**JOUR 635 Photojournalism V (3)**

*Prerequisite:* JOUR 300 with grade of C or better or consent of instructor; journalism major or minor. Employ multiple visual platforms and storytelling structures to produce journalism for the internet. (Plus-minus letter grade only.)

**JOUR 650 Seminar: Contemporary News (3)**

*Prerequisites:* JOUR 300 and JOUR 395 with grade of C or better; journalism major or minor. Trends in contemporary news including reporting techniques, news delivery and journalistic storytelling. (Plus-minus letter grade only.)

**JOUR 666 Ethical Issues in Journalism (3) [GE]**

*Prerequisite:* upper division standing. Today's news media: ethics and responsibilities involved in the entire news process, from conception of story idea to publication or broadcast of completed story.

**JOUR 667 Seminar: Topics in Journalism (3)**

*Prerequisite:* consent of department. Topic to be specified in Class Schedule. May be repeated when topics vary.

**JOUR 675 News Entrepreneurship (3)**

*Prerequisites:* JOUR 300 and JOUR 395 with grade of C or better. Developing and applying new business models for journalism; using media trends and media innovations to capture new audiences for news and features.

**JOUR 680 Advanced Multimedia Journalism (3)**

*Prerequisite:* JOUR 395 with grade of C or better; journalism major or minor. Exploration of multimedia stories; development of high level production skills; progression away from linear narrative into non-linear storytelling to do interactive narratives in newsrooms. (Plus-minus letter grade only.)

**JOUR 685 Projects in the Teaching of Journalism (1-3)**

*Prerequisites:* completion with grade of C or better in course in which student will be aide, and consent of instructor. Students are paired with Journalism faculty in supervised practicum to assist in teaching and to complete directed projects.

**JOUR 695 Senior Seminar (3)**

*Prerequisites:* JOUR 609 with grade of C or better; journalism major or minor. Journalism publishing project applying skills and knowledge of the major. (Plus-minus letter grade only.)

**JOUR 699 Special Study (1-3)**

Intensive study and investigation of a selected problem under the supervision of an instructor. Open to majors and minors with senior or graduate standing, with consent of the department.

**KINESIOLOGY***Undergraduate Courses***Physical Activities (1 each)**

Activity courses (KIN 100-KIN 299) are one unit each, except where noted. A maximum of three units can be earned toward graduation in each activity area. Courses may be repeated at the same level or more than one level, as long as the student's skill level is commensurate with that of the class (the instructor will make the determination).

All elementary level classes assume either no or limited prior experience and are recommended for students wishing to develop or improve skill in that area. All intermediate/advanced activity courses require as a prerequisite either: the elementary level course of that activity, previous experience which places the student at that level (subject to assessment of instructor), or consent of the instructor. Any activity course that does not specify a level in the title is designed to accommodate all skill levels.

If students are injured while participating in a physical activity class, they are not covered by any university insurance policy. Each student is responsible for obtaining his or her own insurance policy through a private insurance agency or through the student insurance plan of the Associated Students.



- KIN 100 Aerobics: Low Impact (1)**  
**KIN 103 Aerobics: Steps (1)**  
**KIN 124 Fitness and Conditioning (2)**  
**KIN 127 Personalized Fitness Programs (1)**  
**KIN 136 Hatha Yoga (1) [GE]**  
**KIN 139 Jogging (1)**  
**KIN 142 Elementary Judo (1) [GE]**  
**KIN 145 Elementary Karate (1) [GE]**  
**KIN 148 Elementary Kung Fu (1) [GE]**

**KIN 151 Tae Kwon Do (1) [GE]**  
 Study in the Korean martial art form of Tae Kwon Do. Focus upon learning the movement forms, the historical and cultural significance of this art form, and the modern evolution of Taekwondo.

- KIN 158 Personal Defense (2)**  
**KIN 161 Shaolin Chuan: Tan-Tui (1) [GE]**  
**KIN 164 Elementary Soccer (1)**  
**KIN 171 Beginning Swimming: Non-Swimmers (1)**

- KIN 172 Elementary Swimming (1)**  
**KIN 173 Aquatic Fitness (1)**

*Prerequisite:* ability to execute basic strokes with comfort in deep water. Physical activity course.

- KIN 175 Elementary Tai-Chi Chuan (1) [GE]**  
**KIN 178 Elementary Tennis (1)**  
**KIN 189 Weight Training: Beginners Only (1)**  
**KIN 190 Weight Training (1)**

**KIN 191 Individualized Weight Training (1)**  
 Weight training conducted in an open gym format. Students clock in and work out, under supervision, according to an approved program of 100 minutes per week distributed in at least two sessions. Assessment of strength of various muscle groups. Attend lectures on various approaches to strength training.

- KIN 236 Intermediate/Advanced Hatha Yoga (2) [GE]**

*Prerequisite:* KIN 136 or consent of instructor. Intermediate/advanced Hatha Yoga postures. Historical background of the branches of yogic philosophy. Explanation, demonstrations, and practice of various intermediate and advanced movements, postures, and breathing exercises of traditional Hatha Yoga.

- KIN 242 Intermediate/Advanced Judo (1)**  
**KIN 250 Introduction to Kinesiology (3)**  
*Prerequisites:* completion of GE Segment I with grades of C or better. Introduction to the study of kinesiology; examination of its various subfields; exploration of career opportunities. (2 units lecture; 1 unit laboratory.)  
**KIN 272 Intermediate/Advanced Swimming (1)**  
**KIN 275 Intermediate/Advanced Tai-Chi Chuan (2) [GE]**

**KIN 294 CPR (1)**  
 General instructions and specific procedures for providing cardiopulmonary resuscitation and basic life saving techniques. Certification in CPR for adults, children, and infants.

- KIN 295 First Aid and Cardiopulmonary Resuscitation (CPR) (2)**

Instruction and specific procedures for providing immediate care to a person who has been injured or is experiencing a medical emergency. Certification in CPR of adults, children, and infants and Standard First Aid are provided.

**KIN 298 Practicum in Kinesiology (1)**  
*Prerequisites:* consent of instructor and associate chair. Individually directed experiences as leadership assistants in movement activities.

**KIN 299 Practicum in Kinesiology (1)**  
*Prerequisites:* consent of instructor and associate chair. Individually directed experiences as leadership assistants in movement activities.

- KIN 300 Health-related Fitness and Wellness (3) [GE]**

*Prerequisite:* BIOL 100 or consent of instructor. Must be taken concurrently with an aerobic activity course. Role exercise plays in the maintenance of health-related fitness and wellness over the lifespan. Components of a healthy lifestyle.

#### Instructional Analysis Courses (2 each)

Fundamental skills and strategies for teaching and coaching beginning and intermediate learners; developing skill progressions, providing feedback, structuring effective learning environments in various teaching situations, and addressing individual differences.

*Prerequisites for Instructional Analysis Courses (except KIN 308):* KIN 340 or approval of instructor. Sufficient experience to demonstrate basic proficiency in performing the fundamental skills of the activities in the course; otherwise, it is recommended that the student take the corresponding activity course(s) prior to enrolling in the activity class.

- KIN 305 Instructional Analysis: Track, Field, and Gymnastics Floor Activities (2)**

*Prerequisites:* KIN 340 or approval of instructor. Sufficient experience to demonstrate basic proficiency in performing the fundamental skills of the activities in this course; otherwise, it is recommended that the student take the corresponding activity course(s) prior to enrolling in this class. Analysis of fundamental skills and strategies in track and field and in gymnastics floor activities, for teaching and coaching beginning and intermediate learners. Progressions, feedback, structuring effective learning environments in various teaching situations, individual differences.

- KIN 306 Instructional Analysis: Racquet Sports (2)**

*Prerequisites:* KIN 340 or approval of instructor. Sufficient experience to demonstrate basic proficiency in performing the fundamental skills of the activities in this course; otherwise, it is recommended that the student take the corresponding activity course(s) prior to enrolling in this class. Analysis of fundamental skills and strategies in badminton and tennis for teaching and coaching beginning and intermediate learners. Skill progressions, feedback, structuring effective learning environments, individual differences. Classwork, 1 unit, laboratory, 1 unit.

- KIN 307 Instructional Analysis: Basketball and Volleyball (2)**

*Prerequisites:* KIN 340 or consent of instructor. Sufficient experience to demonstrate basic proficiency in performing the fundamental skills of the activities in this course; otherwise, it is recommended that the student take the corresponding activity course(s) prior to enrolling in this class. Analysis of fundamental skills and strategies in basketball and volleyball for teaching and coaching beginning and intermediate learners. Skill progressions, feedback, structuring effective learning environments, individual differences. Classwork, 1 unit; laboratory, 1 unit.

- KIN 308 Instructional Analysis: Fitness Activities (2)**

*Prerequisites:* KIN 300 (may be taken concurrently); successful completion of fitness assessment; or consent of instructor. Analysis of fundamental skills and strategies in teaching a variety of fitness activities. Classwork, 1 unit; laboratory, 1 unit.

- KIN 309 Instructional Analysis: Soccer and Softball (2)**

*Prerequisites:* KIN 340 or approval of instructor. Sufficient experience to demonstrate basic proficiency in performing the fundamental skills of the activities in this course; otherwise, it is recommended that the student take the corresponding activity course(s) prior to enrolling in this class. Analysis of fundamental skills and strategies in soccer and softball for teaching and coaching beginning and intermediate learners. Skill progressions, feedback, structuring effective learning environments, addressing individual differences. Classwork, 1 unit; laboratory, 1 unit.

#### Prerequisites for Upper Division Courses

Courses numbered 322 and above include significant writing and analytical requirements. Students must complete three of the four GE Segment I requirements, including ENG 214, or approved equivalents, before enrolling in them. Students enrolled in upper division Kinesiology courses should have upper division standing or consent of the instructor. Other prerequisites are listed with the specific course.

- KIN 322 Sport in America (3) [GE]**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; upper division standing or consent of instructor. Interpretation of contemporary issues in sport from the perspective of American society. Professional sport, women in sport, and youth sport using a multimedia approach that includes film, print media, literature and historical texts.

- KIN 325 Computer Applications in Kinesiology (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; upper division standing or consent of instructor. Enrollment priority to kinesiology majors. Information management for kinesiology applications using computerized word processing, spreadsheets, graphics, outlining, and databases. Classwork, 2 units; laboratory, 1 unit.

- KIN 330 Becoming a Kinesiologist - GVAR (3)**

*Prerequisite:* ENG 214 with grade of C- or better or equivalent. Critical thinking and writing specific to the discipline of kinesiology. ABC/NC grading only. C-/CR not allowed.

- KIN 331 Peak Performance (3) [GE]**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; upper division standing or consent of instructor. Examination of mental factors which one can train and which help bring about optimum performance in sport and other endeavors. Practical application for maximizing human potential.

**KIN 340 Orientation to Teaching Physical Education (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; upper division standing or consent of instructor. Professionalism in school-based physical education. Contemporary view of physical education, guided observation in K-12 schools, self-assessment, and plan for professional development as a prospective teacher. Physical education as a career choice.

**KIN 355 Science, Sport, and Fitness (3) [GE]**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; BIOL 100 or equivalent; upper division standing or consent of instructor. Physiological and mechanical principles of sport and fitness. Evaluation of myths and truths about sport science, nutrition, injury prevention, physics of exercise, sport, and individualizing training programs.

**KIN 384 Research Methods in Kinesiology (3)**

*Prerequisites:* completion of quantitative reasoning requirement with a grade of C or better or consent of instructor. Understanding and applying research methods and statistics relevant for studying kinesiology. Topics include sampling, validity, reliability, experimental design, qualitative approaches, and statistical analyses. Classwork, 2 units; laboratory, 1 unit.

**KIN 401 Elementary School Physical Education, K-5 (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; upper division standing or consent of instructor. Physical education majors must take concurrently with KIN 402. Movement, fitness, and skill programs for children. Objectives, organization, and conduct of successful physical education programs. Classwork, 2 units; laboratory, 1 unit.

**KIN 402 Practicum in Physical Education, N-5 (1-3)**

*Prerequisites:* ENG 214 or equivalent and two additional courses of the GE Segment I requirements; upper division standing or consent of instructor. Required for physical education teacher preparation majors; must be taken concurrently with KIN 401. Directed experiences as teaching assistants of physical education in pre-school and elementary school programs.

**KIN 437 Physical Dimensions of Aging (3) [GE]**

*Prerequisites:* completion of three of the four Segment I requirements, including ENG 214 or its equivalent, upper division standing or consent of instructor. Study of the physical aspects of aging from a developmental perspective in the adult years; the role of exercise/activity in the maintenance of functionality; hypotheses of physical decline, implications of age-related physical changes for daily living and activity patterns. Paired with KIN 737. Students who have completed KIN 737 may not take KIN 437 for credit.

**KIN 457 Culture, Gender, and Movement (3) [GE]**

*Prerequisites:* ENG 214 and 2 additional courses of the GE Segment I requirements; upper division standing; and kinesiology majors must have completed 6 units of upper division KIN courses, or consent of instructor. Transmission of culture, values, and gender roles through a variety of movement forms. Interpretation of the cultural dimension of movement.

**KIN 480 Anatomical Kinesiology (4)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; BIOL 328 and KIN 350 with grades of C or better; upper division standing or consent of instructor. Structure and function of the musculoskeletal system in movement; relation to external forces; principles of aggregate muscle function. Application to exercise, skill, activities of daily living. Classwork, 3 units; laboratory, 1 unit. (Plus-minus letter grade only.)

**KIN 482 Exercise Physiology (3)**

*Prerequisites:* BIOL 610 and 611 and KIN 350 with grades of C or better. Must be taken concurrently with KIN 483. Examination of the acute physiological responses to exercise and the adaptations that occur with systematic exercise training.

**KIN 483 Exercise Physiology Laboratory (1)**

*Prerequisites:* BIOL 610 and 611; KIN 350 with grade of C or better. Must be taken concurrently with KIN 482. Effects of various types of exercise on the body's physiological systems. Laboratory.

**KIN 485 Biomechanics (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; BIOL 328, KIN 250, and KIN 480 with grades of C or better; upper division standing or consent of instructor. Mechanical principles applied to analyzing human movement. Interaction of mover and physical environment, efficiency in tasks of daily living, work settings, sport, and exercise.

**KIN 486 Motor Learning (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; kinesiology majors must have completed KIN 350 with a grade of C or better; upper division standing or consent of instructor. Concurrent enrollment in an activity course is recommended. Acquisition and development of motor skill with application to teaching and therapeutic intervention. Coordination, perception, task analysis, learning, and the facilitation of skill acquisition. KIN 487 Motor Development (3) [GE]

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; upper division standing or consent of instructor. Developmental perspective on the physical, psychological, and social factors which contribute to the acquisition of motor control and movement performance from the prenatal stage through old age. KIN 488 Assessment in Physical Education (3)

*Prerequisites:* completion of quantitative reasoning requirement with a grade of C or better or consent of instructor. Testing and measuring performance; history of test construction and use; selected statistical methods; test administration and evaluation. Classwork, 2 units; laboratory, 1 unit.

**KIN 489 History and Philosophy of Sport and Physical Activity (3)**

*Prerequisites:* ENG 214 or equivalent and two additional courses of the GE Segment I requirements; upper division standing or consent of instructor. History and philosophy of physical activity from ancient times to the early 20th century. Evolution of attitudes towards exercise and physical fitness.

**KIN 490 Introduction to Sport and Fitness Program Management (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I courses; upper division standing. Introduction to the academic and professional field of sport and fitness administration and management by grounding students in the history, socio-cultural context, and structure of community and private fitness clubs and university, elite amateur, and professional sports organizations.

**KIN 502 Sport and Social Issues (3) [GE]**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; upper division standing, or consent of instructor. Influences of media, politics, economy, social attitudes on sport institutions from childhood practices to professional athletics. Race, gender, and social class perspectives.

**KIN 504 Sport and Exercise Psychology (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; upper division standing; 6 units of upper division courses in psychology or KIN 350 and KIN 486 (or concurrently enrolled) or consent of instructor. Psychological factors influencing performance of physical activity in sport, exercise, educational, and rehabilitative settings, including social implications, theoretical perspectives, and application of research findings in the areas of sport and exercise psychology.

**KIN 536 Movement for Individuals with Mild Disabilities (4)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 350 and six units of upper division KIN courses; upper division standing; or consent of instructor. Mild and moderate disabling conditions throughout the lifespan as they relate to the development and efficiency of movement. Implications for design and conduct of movement programs, inclusion and evaluation of individual needs. Classwork, 3 units; laboratory, 1 unit.

**KIN 537 Movement for Individuals with Severe Disabilities (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 350 and six units of upper division KIN courses; upper division standing; or consent of instructor. Severe and profound disabling conditions throughout the lifespan as they relate to the development and efficiency of movement. Implications for design and conduct of movement programs, inclusion, and evaluation of individual needs.

**KIN 538 Therapeutic Exercise (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 476 or 482; KIN 475 or 480; upper division standing; or consent of instructor. Fitness programming, conditioning, and stress reduction for individuals who are disabled. Factors that influence exercise and the disabled include positioning, use of assistive devices, specifically designed equipment, wheelchairs, and utilization of personal aids.

**KIN 539 Motor Assessment of Individuals with Disabilities (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 536 and 537; upper division standing; or consent of instructor. KIN 484 and 538 recommended. Evaluation and diagnosis of motor ability problems for individuals with disabilities. Evaluation methods and the development of individual education plans.

**KIN 555 Exercise Testing and Prescription (3)**

*Prerequisites:* KIN 189 or equivalent, KIN 480, 482, 483 or consent of instructor. Principles and practices of prescribing exercise to healthy individuals, and individuals with conditions such as cardiac problems, asthma, diabetes, pregnancy, and physical disabilities. Assists in preparation for ACSM certification. Classwork, 2 units; laboratory, 1 unit.

**KIN 570 Directed Coaching Experience (1)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; completion of six units in the coaching sequence; upper division standing or consent of instructor. Assistant coaching experience, recreation leagues, youth, interscholastic or intercollegiate athletics. Site must be approved in advance. CR/NC grading only.

**KIN 580 Instructional Strategies for Middle and High School Physical Education, Grades 6-12 (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 486 or KIN 487; upper division standing; or consent of instructor. Must be taken concurrently with KIN 581. Strategies and teaching styles to establish the environment for learning motor skills. Long- and short-term planning, class management and communication techniques, evaluation procedures, and basic legal considerations. KIN 581  
Practicum in Middle and High School Physical Education (1)

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; enrollment in teaching credential program; upper division standing or consent of instructor. Must be taken concurrently with KIN 580. Directed experiences in teaching and coaching youth and adolescents in activities common to middle and high school physical education programs.

**KIN 620 Advanced Practicum in Kinesiology (2)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; upper division standing; and consent of instructor and associate chair. Individually directed experiences as student trainers, varsity sport managers, or special leadership assistants in kinesiology. [CSL may be available; consult index for page reference.]

**KIN 621 Advanced Practicum in Kinesiology (2)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; upper division standing; and consent of instructor and associate chair. Individually directed experiences as student trainers, varsity sport managers, or special leadership assistants in kinesiology.

**KIN 630 Internship in Adapted Physical Education (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 536, 537, 538; upper division standing; or consent of instructor. Recommended: KIN 539 (may be taken concurrently). Directed experiences with exceptional individuals participating in PE programs in schools or other agencies; supervised development of individual plans. Includes weekly seminars. KIN 636  
Neuromotor Control Processes (3)

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 486; upper division standing or consent of instructor. PSY 581 or BIOL 642 is recommended. Neuromuscular processes underlying coordination and control of movement in the context of skill.

**KIN 680 Quantitative Analysis of Human Movement (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 485 with grade of C or better; upper division standing or consent of instructor. Quantitative analytic tools and techniques applied to movement. Identification and measurement of biomechanical correlates as means of understanding coordination and movement strategies in the context of development, learning, performance, and rehabilitation. (Plus-minus letter grade only.)

**KIN 681 Muscle Mechanics (3)**

*Prerequisite:* KIN 480 and KIN 482. Basic and applied physiological properties of skeletal muscles, tendons and ligaments, in the context of the physiological adaptations from disuse, injury, and training. (Paired with KIN 781. Students who have completed KIN 781 may not take KIN 681 for credit.)

**KIN 683 Applied Exercise Physiology (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; BIOL 328, 610, and 611, and KIN 482 and 483 with grades of C or better; upper division standing or consent of instructor. Application of basic exercise physiology principles to the enhancement of energy capacity, work tolerance under environmental stress, metabolic basis for weight and body composition control, and aging/health-related aspects of exercise. Classwork, 2 units; laboratory, 1 unit. (Plus-minus letter grade only.)

**KIN 685 Projects in the Teaching of Kinesiology (1-3)**

*Prerequisites:* advanced standing in kinesiology; approval of associate chair and supervising instructor; and grade of B or better in course in which student will be an instructional aide. Teaching experiences in kinesiology through assigned instructional projects in a classroom or laboratory, and under the guidance of a faculty member. Training in pedagogical principles, including supervised classroom teaching activities. Units may not be applied towards fulfilling major requirements.

**KIN 690 Internship in Fitness/Wellness (3)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 482, 483, and 490; upper division standing or consent of instructor. Prior completion of KIN 555 is strongly recommended. Work as a trainee with professionals in the field of fitness/wellness, and extend learning experiences beyond those acquired on campus.

**KIN 696 Kinesiology Community-Based Internship (3)**

*Prerequisite:* Upper division and consent of instructor. Kinesiology community-based internship with youth in underserved communities coupled with a theory-practice project. (Plus-minus letter grade only.) [CSL may be available; consult index for page reference.]

**KIN 697 Integrative Research Seminar (2)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 482, 483, 485, 486; upper division standing; or consent of instructor. Must be taken concurrently with KIN 698. Enrollment preference given to graduating seniors. Critical analysis and research design to explore a topic in exercise and movement science from multidisciplinary perspective.

**KIN 698 Senior Research Project (1)**

*Prerequisites:* ENG 214 and two additional courses of the GE Segment I requirements; KIN 482, KIN 485, 483, 485, 486; upper division standing; or consent of instructor. Must be taken concurrently with KIN 697. Enrollment preference given to graduating seniors. Conduct an appropriate research study in the student's area of concentration.

**KIN 699 Special Study (1-3)**

*Prerequisites:* consent of associate chair and supervising instructor. Intensive study of a particular problem under the direction of an instructor of the department. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**Graduate Courses****KIN 710 Research in Kinesiology (3)**

*Prerequisites:* undergraduate degree in kinesiology, a computer and a statistics course, or consent of instructor. Descriptive, quasi-experimental, experimental, and qualitative research in kinesiology.

**KIN 715 Research Designs and Analysis (3)**

*Prerequisite:* KIN 710 or consent of instructor. Designs and statistics in descriptive, experimental, quasi-experimental, and qualitative research.

**KIN 730 Advanced Biomechanics (3)**

*Prerequisite:* undergraduate course in biomechanics or kinesiology, or consent of instructor. Techniques for qualitative and quantitative analysis of movement as a mean of understanding movement processes.

**KIN 733 Motor Learning (3)**

*Prerequisite:* KIN 720 or equivalent, or consent of instructor. Factors influencing the development and acquisition of motor skill with emphasis upon a dynamical systems perspective. Current theory and research in motor skill is discussed with implications for practice.

**KIN 734 Physical Activity Programs for Underserved Youth (3)**

*Prerequisite:* upper division undergraduate or graduate standing. A survey of the theory and practice of physical activity-based programs for underserved youth that emphasize life skills and active learning. Understanding the theoretical dynamics of physical activity on youth development and its potential for practical application.

**KIN 736 Advanced Neuromotor Control (3)**

*Prerequisite:* graduate standing or consent of instructor. Advanced neuromotor control will cover the current theories and underlying neurophysiology of motor control and learning.

**KIN 737 Physical Dimensions of Aging (3)**

For description, see KIN 437. Paired with KIN 437. Students who have completed KIN 437 may not take KIN 737 for credit.

**KIN 740 Advanced Exercise Metabolism (3)**

*Prerequisite:* KIN 482 or equivalent. Historical and contemporary evaluation of energy metabolism, nutrition, and neuromuscular functions.

**KIN 742 Exercise and Cardiovascular Dynamics (3)**

*Prerequisites:* BIOL 328, BIOL 610, and KIN 482. Understanding the regulation of the cardiovascular system as it relates to regulatory mechanisms for acute and chronic exercise.

**KIN 746 Clinical Exercise Physiology (3)**

*Prerequisites:* KIN 482, KIN 483, KIN 555. Examination of acute and chronic responses to exercise in patients with various cardiac, pulmonary, metabolic, and musculoskeletal diseases. Emphasis is placed on the pathophysiology of the disease process, assessment of disease severity, and exercise testing and prescription in clinical populations.

**KIN 750 Curriculum and Instruction I: Physical Education (3)**

*Prerequisite:* admission to credential program or consent of instructor. Principles and practices for teaching physical education, including planning of content and instruction with consideration of student learning and state standards.

**KIN 751 Curriculum and Instruction II: Physical Education (3)**

*Prerequisite:* KIN 750. Must be taken concurrently with S ED 660/S ED 760. Principles and practices for teaching physical education to all learners, with additional emphases on assessment, reflective practice, and technology.

**KIN 755 Exercise Electrocardiography, Testing and Prescription (3)**

*Prerequisites:* KIN 482, 483, and 555 or equivalent. In-depth theoretical background for exercise, electrocardiography, testing, and prescription for individuals and groups in clinical, corporate, community and occupational settings.

**KIN 763 Motivation and Performance (3)**

*Prerequisite:* one course in PSY (200 level or above), or KIN 331, or consent of instructor. Psychological perspectives of human performance and research findings in the areas of sport and exercise psychology; awareness of literature focused on the psychological dimension. (Not open to students who have completed KIN 663.) (Plus-minus letter grade only.)

**KIN 766 Sociocultural Bases of Physical Activity (3)**

*Prerequisites:* graduate standing or consent of instructor. Sociocultural factors underlying participation in physical activity, sport, and exercise. Implications for the practitioner.

**KIN 781 Muscle Mechanics (3)**

*Prerequisite:* KIN 480 and KIN 482. Paired with KIN 681. For course description, see KIN 681. Students who have completed KIN 681 may not take KIN 781 for credit.

**KIN 795 Seminar in Kinesiology (3)**

*Prerequisite:* completion of 15 Graduate Approved Program units. Interdisciplinary seminar on relevant kinesiology issues, areas of interest, problems, and future directions. Involves extensive analysis of recent and significant research.

**KIN 895 Master's Project in Kinesiology (3)**

*Prerequisite:* completion of core and concentration requirements. Development of a research question on a topic approved by faculty with literature review, methodology and statistical analysis. Includes proposal and oral presentation. Graduate Approved Program and Proposal for Culminating Experience Requirement must be approved by Graduate Studies before registration. CR/NC grading only.

**KIN 896 Directed Reading in Kinesiology (3)**

*Prerequisites:* completion of 21 units on the ATC, consent of adviser and instructor. Integrating information in movement and exercise science or a significant issue. May be repeated once for a total of 6 units. CR/NC grading only.

**KIN 897 Independent Research in Kinesiology (3)**

*Prerequisites:* KIN 710, 715 or equivalent, twelve graduate units completed in M.A. program, and consent of graduate adviser. Independent, original research investigation supervised by a graduate adviser. For students who selected the thesis culminating experience. CR/NC grading only.

**KIN 898 Master's Thesis (3)**

*Prerequisites:* classified graduate status for the Master of Arts, KIN 897, and consent of graduate major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**KIN 899 Special Study (1-3)**

*Prerequisites:* graduate status with demonstrated ability to do independent work and consent of adviser and supervising instructor. Independent study or research is planned, developed, and completed under the direction of a faculty member. May be repeated for a total of six units. CR/NC grading only.

**LABOR STUDIES***Undergraduate Courses***LABR 250 Introduction to the Study of Labor (3) [GE]**

The study of labor in the United States. The nature of work, the development and characteristics of the work force, the history and present nature of labor organizations, and patterns of labor-management relationships.

**LABR 251 Know Your Work Rights (3) [GE]**

Hands-on approach to understanding basic statutory protections covering California workers, including wage and hour; work place safety, health, and sanitation; workers' compensation; discrimination; union activity; pregnancy and parental leave; discipline and discharge; unemployment and disability insurance; social security, health, and pension benefits.

**LABR 300 Researching Labor Issues (3)**

*Prerequisite:* LABR 250. Methods of research and analysis used in understanding labor issues. Case studies and contemporary issues selected from such areas as collective bargaining, arbitration and mediation, legislation, regulatory and administrative law, employment discrimination and union governance.

**LABR 343 Women and Work (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with S S/ANTH 343. For course description, see S S 343. (May not be repeated under alternate prefix.)

**LABR 473 Unfree Labor in Early America (3)**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Cross listed with HIST/ETHS 473. For course description, see HIST 473. (May not be repeated under alternate prefix.)

**LABR 474 History of Labor in the United States (3)**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST/ECON 474. For course description, see HIST 474. (May not be repeated under alternate prefix.)

**LABR 500 Labor and Government (3)**

*Prerequisite:* upper division standing or consent of instructor. Exploration of labor-government relations at local, state, and national levels. Consideration of labor's political action in relation to legislative, executive, and judicial branches of government and in the electoral process; examination of government's responses as they protect or restrict labor's interest. (Cross listed with PLSI 500. May not be repeated under alternate prefix.)

**LABR 510 Labor Economics (3)**

*Prerequisite:* ECON 101 or consent of instructor. Cross listed with ECON 510. For course description see ECON 510. (May not be repeated under alternate prefix.)

**LABR 511 Collective Bargaining (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ECON 511. For course description, see ECON 511. (May not be repeated under alternate prefix.)

**LABR 525 Diversity in the Workplace (3) [GE]**

*Prerequisite:* upper division standing. An overview of workplace diversity and strategies to utilize it positively. Theoretical debates and issues related to race, ethnic origin, gender, sexual orientation, class, age, and disability. Ways in which individuals and organizations can maximize benefits through respecting and working with diversity. (Cross listed with ANTH/S S 525. May not be repeated under alternate prefix.)

**LABR 550 International Labor (3)**

*Prerequisite:* LABR 250 or consent of instructor; upper division standing. Analysis of labor's role in the developed economies, East and West, and in developing areas. Theoretical perspectives on international labor. Migration and population as they relate to labor. Impact of trade treaties on labor markets. (Cross listed with IR 450. May not be repeated under alternate prefix.)

**LABR 552 Comparative Employment Relations (3)**

*Prerequisite:* upper division standing. Introduction to the concept of the employment relationship, the main "models" and their key actors; diversity at work to international labor rights and how they are approached and practiced in different countries. (Cross-listed with SOC 552. May not be repeated under alternate prefix.)

**LABR 553 Labor Standards and Corporate Social Responsibility (3)**

*Prerequisite:* upper-division standing. Introduction to an overview of recent academic debates on Corporate Social Responsibility, International Labor Standards and "decent work." Codes of conduct, monitoring, and certification/labeling/ transparency. (Cross listed with SOC 553. May not be repeated under alternate prefix.)

**LABR 554 Themes in Comparative Employment Relations (3)**

*Prerequisite:* upper division standing. Introduction to the main "models" that have been used in comparative analysis of national systems of employment relations; the Anglo-Saxon, Japanese, and European social models; discussion of the appropriateness of these models in understanding transforming economies. (Cross-listed with SOC 554. May not be repeated under alternate prefix.)

**LABR 555 Labor Rights in the Global Economy (3)**

*Prerequisite:* upper division standing or consent of instructor. Key themes concerning labor rights in the global economy; focus on core labor rights identified by the UN: freedom of association, freedom from child labor; freedom from coerced labor, and freedom from discrimination. (Cross listed with SOC 555. May not be repeated under an alternate prefix.)

**LABR 600 Current Topics in Labor (3)**

*Prerequisite:* upper division standing or consent of instructor. Course Description: Current issues and problems in Labor Studies: quality of work life, labor and art, labor law, etc. Topic to be specified in Class Schedule. May be repeated when topic varies.

**LABR 650 Labor Law: An Introduction and Overview (3)**

*Prerequisite:* upper division standing or consent of instructor. An overview of the history and development of the National Labor Relations Act, public sector and farm labor law, Taft-Hartley, Landrum Griffin Act, and benefit legislation.

**LABR 695 Union Internship (1-3)**

*Prerequisites:* LABR 250, LABR 400, or consent of instructor. Internship with Bay Area labor organization. May involve organizing, research, or participation in special projects. May be repeated for a total of 6 units. CR/NC grading only.

**LABR 699 Special Study (1-3)**

*Prerequisites:* consent of instructor, major adviser, and department chair. Supervised study of a particular problem selected by the student.

**LATIN***Undergraduate Courses***LATN 101 Elementary Latin (5) [GE]**

Latin language and grammar with emphasis on reading classical prose. Groundwork for master works of Latin poetry and prose.

**LATN 202 Intermediate Latin (5) [GE]**

*Prerequisite:* LATN 101 or equivalent. Understanding, reading, writing at the intermediate level. Reading selections from prose and poetry.

**LATN 301 Introduction to Latin Prose and Poetry (3)**

*Prerequisite:* successful completion of Latin 202 or consent of instructor. Reading, translation and literary analysis of Latin passages, alongside grammar and vocabulary review.

**LATN 430 Roman Satire (3)**

*Prerequisite:* LATN 202 or equivalent. Translation and analysis from the satires of Horace, Juvenal, Persius, and Petronius; Satiricon and epigrams of Martial; Roman satire and critical approaches. Paired with LATN 730. Students who have completed LATN 430 may not take LATN 730 for credit.

**LATN 435 Roman Epistolography (3)**

*Prerequisite:* reading knowledge of Latin. Translation and analysis of Roman letters. Discussion of historical context. (Paired with LATN 735. Students who have completed LATN 735 may not take LATN 435 for credit.)

**LATN 436 Roman Novel (3)**

*Prerequisite:* reading knowledge of Latin. Translation and analysis of Roman novels. Discussion of historical context. (Paired with LATN 736. Students who have completed LATN 736 may not take LATN 436 for credit.)

**LATN 440 Roman Philosophy (3)**

*Prerequisite:* reading knowledge of Latin. Translation and analysis of Roman philosophical works. Discussion of historical context. (Paired with LATN 740. Students who have completed LATN 740 may not take LATN 440 for credit.)

**LATN 441 Roman Oratory and Rhetoric (3)**

*Prerequisite:* reading knowledge of Latin. Translation and analysis of Roman speeches and works of rhetorical theory. Discussion of historical context. (Paired with LATN 741. Students who have completed LATN 741 may not take LATN 441 for credit.)

**LATN 445 Latin Epic I (3)**

*Prerequisite:* reading knowledge of Latin. Translation and analysis of Latin epic poetry, with a focus on Vergil's Eclogues, Georgics, and/or Aeneid 1-6. Discussion of poetic models and historical context. Paired with LATN 745. Students who have completed LATN 445 may not take LATN 745 for credit.

**LATN 455 Latin Lyric & Elegy I (3)**

*Prerequisite:* reading knowledge of Latin. Translation and analysis of Latin lyric and elegiac poetry, with a focus on Catullus, Propertius, Tibullus, and Horace. Discussion of historical context.

**LATN 460 Roman Historiography I (3)**

*Prerequisite:* reading knowledge of Latin. Translation and analysis of Roman historiographical texts, with a focus on authors from the republican period and early principate. Discussion of literary models and historical context. Paired with LATN 760. Students who have completed LATN 760 may not take LATN 460 for credit.

**LATN 699 Special Study (1-3)**

Projects requiring critical study and analysis of advanced material adapted to individual needs and interests. May be repeated.

*Graduate Courses*

*Prerequisite for all graduate courses in Latin: intermediate Latin or equivalent.*

**LATN 730 Roman Satire (3)**

*Prerequisite:* intermediate Latin or equivalent. For course description, see LATN 430. Paired with LATN 430. Students who have completed LATN 730 may not take LATN 430 for credit.

**LATN 735 Roman Epistolography (3)**

*Prerequisite:* reading knowledge of Latin. For course description, see LATN 435. Paired with LATN 435. Students who have completed LATN 435 may not take LATN 735 for credit.

**LATN 736 Roman Novel (3)**

*Prerequisite:* reading knowledge of Latin. Paired with LATN 436. For course description, see LATN 436. Students who have completed LATN 436 may not take LATN 736 for credit.

**LATN 740 Roman Philosophy (3)**

*Prerequisite:* reading knowledge of Latin. Paired with LATN 440. For course description, see LATN 440. Students who have completed LATN 440 may not take LATN 740 for credit.

**LATN 741 Roman Oratory and Rhetoric (3)**

*Prerequisite:* reading knowledge of Latin. Paired with LATN 441. For course description, see LATN 441. Students who have completed LATN 441 may not take LATN 741 for credit.

**LATN 745 Latin Epic I (3)**

*Prerequisite:* Reading knowledge of Latin. For course description, see LATN 445. Paired with LATN 445. Students who have completed LATN 745 may not take LATN 445 for credit.

**LATN 755 Latin Elegy and Lyric I (3)**

*Prerequisite:* reading knowledge of Latin. Translation and analysis of Latin lyric and elegiac poetry, with a focus on Catullus, Propertius, Tibullus, and Horace. Discussion of historical context.

**LATN 760 Roman Historiography I (3)**

*Prerequisite:* reading knowledge of Latin. For course description, see LATN 460. Paired with LATN 460. Students who have completed LATN 460 may not take LATN 760 for credit.

**LATN 899 Special Study (1-3)**

*Prerequisites:* advanced reading knowledge of Latin and consent of supervising faculty member. Advanced reading of an ancient Latin author or authors, under the supervision of a member of the Classics faculty. Enrollment by petition. May be repeated for a total of 6 units.

**LATINA/LATINO STUDIES***Undergraduate Courses***LTNS 110 Critical Thinking in Latina/o Studies (3) [GE]**

Developing basic skills involved in understanding, criticizing, and constructing arguments by using materials reflective of experience of Raza and the Third World culture in the U.S.

**LTNS 205 Cyber Raza: Culture and Community On-line (3) [GE]**

The emerging interrelationship of culture, community, and the Internet with critical analysis of key information age issues. Internet research skills, a basic understanding of on-line technology, web development skills, and critical understanding of the role of technology for Raza. [CSL may be available; consult index for page reference.]

**LTNS 210 Latino Health Care Perspectives (3) [GE]**

Diseases and health conditions that are prevalent in underserved populations; socio-economic, political, racial, cultural, and environmental factors that influence conditions in Raza communities in the U.S. [CSL may be available; consult index for page reference.]

**LTNS 214 Second Year Written Composition: Latina/o Studies (3) [GE]**

*Prerequisite:* ENG 114 (or equivalent) with grade of CR or C- or better. Writing logically developed compositions. Effective content organization, sentence structure, paragraph and essay development. Must be taken after student has completed 24 units and before completing 60 units. (ABC/NC grading, CR/NC allowed.)

**LTNS 215 Introduction to Latina/o Studies (3)**

Philosophy, methodology, and structure of Raza studies. Relations between the Raza community and American institutions of higher education. [CSL may be available; consult index for page reference.]

**LTNS 225 Survey of Latina/o Visual Images (3)**

History of Raza visual images via Hollywood and the Raza community. Social, political, and economic context from which visual images emerge. Works of Raza media artists in the U.S.

**LTNS 230 Introduction to Latina/o Literature (3) [GE]**

Background in Chicano/Latino literature. Readings from all the major Latino groups; emphasis on culture, politics, and gender as seen through fiction.

**LTNS 265 Topics in Latina/o History (3) [GE]**

Introduction to the history of Latinos/as in the U.S. Analysis of the social, political, and economic conditions that give rise to multiple migrations. (Formerly ETHS 265.) [CSL may be available; consult index for page reference.]

**LTNS 270 Latina/o Arts and Humanities (3) [GE]**

Latin American and southwestern cultural experience. Various ethnic groups in Latin America and their contributions to the values, culture, oral history, and traditions of La Raza in the U. S. (Formerly ETHS 270.)

**LTNS 276 Latina/o, U.S. Government, and Constitutional Ideals (3) [USG,CSLG]**

Basic governmental/political institutions and underlying socio-political ideals. Raza impact on legal-constitutional America and countervailing impact of political-legal structures imposed on Raza. Satisfies the U.S. government and the California state and local government requirement. (Fulfills the U.S. Government and California State and Local Government components of the U.S. History and Government Requirement) [CSL may be available; consult index for page reference.]

**LTNS 280 Transculturation and Latina/o Communities (3) [GE]**

Socio-psychological impact of the acculturation/assimilation process on the Latino in the U.S.

**LTNS 305 Latina/o Studies Creative Writing Workshop (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Instruction and practice in all forms of writing with an emphasis on bilingual creations. Taught bilingually (Spanish/English).

**LTNS 315 Latina/os in California (3)**

*Prerequisite: upper division standing or consent of instructor.* Raza experience in California from pre-colonial to contemporary times. Social, cultural, political, and economic factors of the Raza heritage in California. [CSL may be available; consult index for page reference.]

**LTNS 320 Latina/o Art History (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Conceptual and technical aspects of the visual arts movements in Latin America from 1900-present and its developmental relationship to values, cultural identity, and artistic expression of Raza communities in the U.S. [CSL may be available; consult index for page reference.]

**LTNS 355 Black-Indians in the Americas (3)**

*Prerequisites: upper division standing or consent of instructor.* Cross listed with AIS/AFRS 350. For course description, see AIS 350. (May not be repeated under alternate prefix.)

**LTNS 376 History of Latinos in the U.S. (3) [USH]**

*Prerequisite: upper division standing or consent of instructor.* Raza history from pre-colonial to contemporary times. Social, cultural, political, and economic heritage of Raza and their contributions to American society. (Cross listed with HIST 463. May not be repeated under alternate prefix.) (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**LTNS 380 Afro/Latina/o Diasporas (3)**

*Prerequisite: upper division standing or consent of instructor.* Examines history and experiences of Afro/Latina/o diasporic communities in the U.S. and history of African peoples in Latin America and the Caribbean.

**LTNS 409 Latina/o Cinema (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Examines Latino history using Latino themed and produced film; the power of stereotypes and image in the production and global dissemination of film; how film has been used by Latino filmmakers to create alternative realities. (Cross listed with CINE 409. May not be repeated under alternate prefix.)

**LTNS 410 Seminar on Gender and Latinas/os (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Political, social, economic, and cultural influences affecting the Raza woman in the U.S. and Latin America. [CSL may be available; consult index for page reference.]

**LTNS 415 Economic Progress of Latinos in the U.S. (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Critical analysis of the changing political and economic condition of the Mexican-American people. Historical changes in land tenure, barrioization, racialization of labor impact of current political economy on an increasingly diverse Raza community. [CSL may be available; consult index for page reference.]

**LTNS 425 Comparative Music Folklore (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Problems in Latin American music research. Creative individual and class projects explore divergent cultural/aesthetic values in community musical productions. Development of knowledge, research, creative experience, and awareness in community programs. [CSL may be available; consult index for page reference.]

**LTNS 430 Race, Crime, and Justice (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Ethnic studies methods and cross-cultural perspectives examine the rise of institutions of law enforcement, juvenile and criminal justice, case studies, life histories, community service learning internships. (Cross listed with C J 435. May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**LTNS 435 Oral History Methods: Theory and Practice (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Latin American and Southwestern U.S. popular culture. Ethnic groups in Latin America and their contributions to the oral history and traditions of Raza in the U.S. [CSL may be available; consult index for page reference.]

**LTNS 440 Caribbean Cultures and Spirituality (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Cultural and religious traditions of Caribbean peoples. Historical analysis of indigenous, European, and African influences in Caribbean cultural expressions from Cuba to Brazil. Contemporary cultures, inter-ethnic relations, spirituality, religious systems, and artistic expressions.

**LTNS 445 Gendered Borders: Latinas and Globalization (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Gender and globalization: moving society toward borderless economies with barricaded borders. Latinas struggle for fair wages, self-determination, and healthy families. Women living in U.S. and Latin America adjusting to transnational reality. (Cross listed with WGS 445. May not be repeated under alternate prefix.)

**LTNS 450 Indigenismo: Indigenous Cultures of the Americas (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Culture and traditions of indigenous peoples of Latin America. Contemporary society, traditional medical systems, healing methodologies, religion, sorcery, magic, etc. and its relationship to La Raza in the U.S.

**LTNS 455 Resistance Literature of the Americas (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* History of the literature of Resistance. Theories of deconstruction, post-modernism, and gender. Creative applications used to resist colonialism, imperialism, patriarchy, sexual taboos, and literary canons. Difference between Resistance literature and propaganda.

**LTNS 460 Central Americans of the U.S.: History and Heritage (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Developmental relationship between U.S. communities of Central American origin and historical, socio-economic, and cultural factors of contemporary Central America; nationalistic movements, migrations to U.S., economic dependence, social change, art, and society.

**LTNS 465 Mexican-Americans: History and Heritage (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Examines the history of Mexican-Americans (Chicanos) in the U.S.

**LTNS 467 Caribbeans in the U.S.: History and Heritage (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Examines the history of the Spanish Caribbeans in the U.S.

**LTNS 470 Latina/o Immigration to the U.S. (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Theoretical, historical, socioeconomic, legal, and political issues of Latin American immigration patterns to the U.S. Socioeconomic and political impact of documented and undocumented immigration to Raza communities and mainstream U.S. society. (Cross listed with ETHS 470. May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**LTNS 475 Aztec Philosophy (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Philosophical foundations of the Aztec world view; relationship between the deities and humans; view of the relationship between body, mind, and spirit.

**LTNS 485 Latina/o Youth, Crime, and Justice (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Examination of Latino juvenile justice, the myths and realities, and the over incarceration of Latino youth: its sources, costs, and consequences; and impact on individuals, families, and communities. Latino experiences with schooling, police, gangs, drugs, "juvie," and caseworkers are covered. (Cross listed with C J 485. May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**LTNS 490 Latina/o Teatro Workshop (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Works by Raza playwrights. Raza theater, its development and how it relates to the cultural aspects of Raza people. May be repeated for a total of 6 units.

**LTNS 500 Latina/o Community Mental Health (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Mental health services throughout the Bay Area: determine whether these services are relevant to the Raza community. How the Raza student views him/herself and relationships with others in and outside the culture.

**LTNS 501 Latin America: The National Period (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST/ANTH/S 501. For description, see HIST 501. (May not be repeated under alternate prefix.)

**LTNS 505 Gender, Sexuality, and Latino Communities (3)**

*Prerequisite:* upper division standing or consent of instructor. Introduction to the social organization of gender and sexuality in Latino communities; exploration of ways gender and sexuality are given specific cultural meaning among the pan-Latino population. (Cross listed with WGS 505. May not be repeated under alternate prefix.)

**LTNS 510 Latina/o Families Narrative (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. The psychological structure of the family; psychodynamics of family relationships in light of particular sub-cultural influences characteristic of La Raza ethnic background. Sex-role delineations.

**LTNS 515 Transnational Character of Human Rights in Central America (3)**

*Prerequisites:* upper division standing or consent of instructor. Transnational issues for Central Americans in the United States; exploring particular topics as massive violations of basic human rights in Guatemala and El Salvador, US-sponsored terrorism and an alternate liberatory consciousness that impact on Central Americans in the U.S.

**LTNS 520 North and South American Cultural Expression (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with HUM 520. For course description, see HUM 520. (May not be repeated under alternate prefix.)

**LTNS 525 Policy Making and Latinos (3)**

*Prerequisite:* LTNS 276 [formerly RAZA 276] or equivalent or consent of instructor. Analysis of the policy making process, the goals of policy, and the ways to influence policy. Examination of Latino political muscle, the barriers to representation, and critical issues confronting the Latino population in the United States.

**LTNS 530 Latina/os and the Media (3)**

*Prerequisite:* upper division standing or consent of instructor. Social, political, and economic effects of the mass media on Raza people; special emphasis on Spanish-language media and learning media research skills.

**LTNS 533 History of Women in Latin America (3)**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST/WGS 535. For description, see HIST 535. (May not be repeated under alternate prefix.)

**LTNS 536 Latina/o Journalism (3)**

*Prerequisite:* LTNS 530 [formerly RAZA 530]. The role of Latino journalism in the United States from the mid-1800s to the present day, addressing issues of immigration and police brutality in diverse contexts. (Cross listed with JOUR 536. May not be repeated under an alternate prefix.)

**LTNS 560 Contemporary Latina/o Literature (3)**

*Prerequisite:* upper division standing or consent of instructor. Literature produced by the people of Raza both in the U.S. and in Latin America during this century. Writings produced since 1950; ways in which the writers of Raza are expressing and furthering the movement of their people.

**LTNS 575 Latina/o Culture and Identity (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Critical examination of the relationship of culture and race and its relevance to identity constructions within the context of the Pan-Latino experience.

**LTNS 580 Educational Equity (3)**

*Prerequisite:* upper division standing or consent of instructor. Is education the great equalizer? Educational equity and policy issues, including institutional racism, school finance, recruitment/retention of under-represented students, language. (Cross listed with ETHS/SOC 580. May not be repeated under an alternate prefix.) [CSL may be available; consult index for page reference.]

**LTNS 640 Sociology of the Latino Experience (3)**

*Prerequisite:* upper division standing or consent of instructor. A comprehensive introduction to sociological perspectives on the Latino/Latina experience in the United States. Historical and structural in approach. (Cross listed with SOC 640. May not be repeated under alternate prefix.)

**LTNS 660 Latina/o Politics (3) [GE]**

*Prerequisite:* LTNS 276 or consent of instructor. Introduction to Latino politics focusing on equity, labor, immigrant rights, and voter-based movement. Review theory, history, legislation, multiple agency, and collective action while covering central issues of politics and power for the growing Raza population of California and the U.S. [CSL may be available; consult index for page reference.]

**LTNS 670 Mexican Politics and Society (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Peoples, politics, and cultures of Mexico; implications of rapid change in Mexico for California and the U.S. (Cross listed with PLSI 408. May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**LTNS 679 Central American Literature: Roots to the Present (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Central American literature, from earliest indigenous manuscripts, such as the Popol Vuh, to contemporary writers like Sergio Ramirez and Claribel Alegria. Writers and poets from 1960 to the present.

**LTNS 680 Latina/o Community Organizing (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Raza and community organizing; mobilization and action toward the resolution of community problems; elements and techniques of organizing; development of leadership and community resources; acquisition and direction of power; analysis of the existing organizations and their definitions of community priorities and goals. [CSL may be available; consult index for page reference.]

**LTNS 685 Projects in the Teaching of Latina/o Studies (1-4)**

*Prerequisite:* upper division standing and consent of instructor. Academic service learning practicum/internship experience as an undergraduate instructional aide. Participation in the teaching of a regular instructionally-related class. Limited to undergraduate students only. May be repeated for a total of 4 units.

**LTNS 690 Community Fieldwork in Latina/o Studies (3)**

*Prerequisite:* upper division standing or consent of instructor. Assignment to off-campus community organizations in consultation with a faculty adviser. Development of knowledge, experience, and training in community organizations. To accompany or follow LTNS 680 [formerly RAZA 680]. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**LTNS 692 Cuba: Health, Education, and Culture (3)**

*Prerequisites:* written application, interview, level of participation. Offered during the fall semester and culminates in a January study tour of Cuba. Combines community service learning with an international experience. [CSL may be available; consult index for page reference.]

**LTNS 693 Cuba: Community Service Learning (3)**

*Prerequisite:* LTNS 692 [formerly RAZA 692] (may be taken concurrently) or consent of instructor. Study of contemporary U.S.-Cuba issues through readings, discussions, films, speakers, and community service learning. Focus on organizing the itinerary for the Cuba travel study and service learning with community agencies. [CSL may be available; consult index for page reference.]

**LTNS 694 Community Service Learning (1-3)**

*Prerequisite:* upper division standing or consent of instructor. Must be taken concurrently with any Raza course supporting community service learning. Community service learning activity course. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**LTNS 698 Senior Seminar in Latina/o Studies (3)**

*Prerequisite:* completion of 9 units in Latina/o studies. Research seminar for advanced students. Investigation of educational, sociological, psychological, political, economic, historical, and cultural aspects of the Raza experience, particularly as these pertain to Latina/o studies curriculum and programs.

**LTNS 699 Special Study (1-3)**

*Prerequisites:* approval of the department and the instructor concerned. An intensive study of a particular problem in Latina/o studies under the direction of a member of the department. LTNS 699 is repeatable for a maximum of 6 units.

**Graduate Course****LTNS 707 Seminar in Latina/o Studies (3)**

*Prerequisite:* consent of instructor. Intellectual history and heritage of Raza studies: effects of scientists, humanists, health and human service providers, and policy analysts on the various investigations and interpretations of contemporary conditions and concerns, experiences, and expressions.

## LIBERAL STUDIES

### Undergraduate Courses

#### LS 300 GW Perspectives on Liberal Studies - GVAR (3)

*Prerequisite:* ENG 214 or equivalent with a grade of C- or better. Enrollment priority for Liberal Studies majors. Basic preparation for interdisciplinary study. Draws on language arts, mathematics, science, social sciences, humanities, and creative arts to prepare students for advanced work in Liberal Studies and for careers requiring breadth and depth of knowledge. (ABC/NC grading only.) [CSL may be available; consult index for page reference.]

#### LS 309 Physical Sciences for Elementary School Teachers (3)

*Prerequisite:* Completion of the Physical Sciences GE requirement. Designed for prospective elementary/middle school (K-8) teachers. Understanding through inquiry the structure and property of matter and principles of motion and energy. Class work, 2 units; laboratory, 1 unit.

#### LS 430 Future of the Forests (3)

*Prerequisites:* ENG 214 or equivalent; one course in college-level biology. Ecological and social dimensions of Western-Hemisphere forests; forest ecology and science; socio-political relations of industries to forest decline and with minority forest dwellers and laborers; sustainability and the future role of forests.

#### LS 690 Liberal Studies Senior Seminar (3)

*Prerequisite:* LS 300 and senior standing. Interdisciplinary theory, research and practice. Examination of key questions and complex problems from multiple perspectives through preparation of a substantial piece of work.

#### LS 699 Special Study (1-3)

*Prerequisite:* declared Liberal Studies major; upper division standing and consent of instructor. Independent inquiry into a specific interdisciplinary issue or problem formulated by the student and approved and supervised by a member of the Liberal Studies faculty.

## MANAGEMENT

### Undergraduate Courses

#### MGMT 342 Leadership Skills for Women (3)

*Prerequisite:* BUS/ENG 214 or equivalent with grade of C- or better. Women's leadership issues in organizations, career advancement, recognizing opportunities, overcoming obstacles; developing general approaches, specific behaviors for success in leadership roles; global comparisons of women's status.

#### MGMT 354 Starting a Small Business (3)

*Prerequisite:* ENG 214 or equivalent; open to business and non-business major. The process of starting and managing a successful small business. Students participate in a team project which takes them through an actual startup. Plus-minus letter grade only.

#### MGMT 405 Introduction to Management and Organizational Behavior (3)

*Prerequisite:* upper division standing; restricted to Business, Dietetics, Apparel Design and Merchandising, Design and Industry, Gerontology, Hospitality Tourism Management, and Recreation, Parks, and Tourism majors. Management and organizational behavior within domestic and international organizations. Functions of planning, organizing, directing, and controlling; managerial process of decision-making and communication; individual motivation and group dynamics within the organizational setting.

#### MGMT 407 Economics for Managers (3)

*Prerequisites:* grade of C- or better in DS/MATH 110, ECON 100, ECON 101 and upper division standing. Macroeconomic and microeconomic environments within which business organizations operate. Applications of economic theory to business operations and management decisions on a local, national and multinational basis.

#### MGMT 430 Introduction to Entrepreneurship I (3)

*Prerequisites:* entrepreneurship major or minor or consent of instructor. The entrepreneurial process and the different kinds of entrepreneurial outcomes. Opportunity identification through analysis of industry niches. Plus-minus letter grade only.

#### MGMT 431 Introduction to Entrepreneurship II (3)

*Prerequisite:* MGMT 430 with grade of C- or better. Skills needed in order to turn an opportunity into reality by gaining access to resources rather than ownership. Effective networking, outsourcing and strategic alliances.

#### MGMT 432 Entrepreneurial Approach to Resources (3)

*Prerequisite:* MGMT 431 with grade of C- or better. Types of entrepreneurial entry strategies; factors influencing the selection of an appropriate strategy and the translation of that strategy into effective tactics.

#### MGMT 433 Building the Entrepreneurial Venture (3)

*Prerequisites:* MGMT 432 with grade of C- or better. Concurrent enrollment with MGMT 437. How entrepreneurs and owners of small businesses can keep their businesses alive and vital as they grow sales and expand to new markets.

#### MGMT 435 International Entrepreneurship (3) [GE]

*Prerequisites:* upper division standing or consent of instructor. Introduction to entrepreneurship in international contexts and its role in economic development. Will help students understand how entrepreneurs in different cultures and economic systems create, find and use resources to build growth oriented ventures.

#### MGMT 437 Entrepreneurial Internship (3)

*Prerequisite:* upper division status; open to business and non-business majors. Examination of how entrepreneurial principles play out in real world. [CSL may be available; consult index for page reference.]

#### MGMT 535 Selected Topics in Entrepreneurship (3)

*Prerequisite:* MGMT 430. Topic to be specified in Class Schedule. May be repeated for a total of 6 units as topics vary.

#### MGMT 567 Internship in Management (3)

*Prerequisites:* MGMT 405 (C- or better), consent of instructor, department chair, and business internship. Experience in a business field. Individual conferences with instructor. Major report required. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

#### MGMT 605 Seminar in Organization Behavior (3)

*Prerequisite:* MGMT 405 with C- grade or better. Enrollment priority for Management majors. Human behavior in organizational settings. Individual motivation and behavior; communication theory and processes; group dynamics; leadership styles.

#### MGMT 610 Human Resource Management (3)

*Prerequisite:* MGMT 405 (C- or better). Policies and practices in human resource management. Department functions including law, planning, recruitment, selection, performance appraisal, information systems, and current issues.

#### MGMT 618 International Human Resource Management (3)

*Prerequisites:* IBUS 330 with C- or better, MGMT 405 and 610, or consent of instructor. International aspects of human resources. Legal requirements, cultural issues, and the management practices and systems critical for success. Students may not take the course a second time under an alternate prefix. (Cross listed with IBUS 618. May not be repeated under alternate prefix.)

#### MGMT 640 Managing Diversity in the Workplace (3)

*Prerequisite:* MGMT 405. Enrollment priority for Management majors. In-depth exploration of how gender, ethnicity, sexual orientation, age, physical ability and size impact employee experiences and management's challenges and opportunities for developing the talents of diverse workers.

#### MGMT 648 Seminar in Leadership (3)

*Prerequisite:* MGMT 405 with C- grade or better. Enrollment priority for Management majors. Discussion and practice of management and leadership theories and skills. Understanding individual leadership potential on a personal and organizational level.

#### MGMT 650 Creativity and Innovation (3)

*Prerequisite:* MGMT 405 or equivalent or consent of instructor. Enrollment priority for Management majors. Building innovative skills by breaking out of limiting patterns; integrating intuitive, rational, associative, sensory, motivational, and emotional intelligences; managing innovation through negotiating, collaborating, creating future scenarios.

#### MGMT 655 Seminar in Emerging Issues in Management (3)

*Prerequisite:* MGMT 405 with a grade of C- or better. Enrollment priority for management majors. Topic to be specified in Class Schedule. May be repeated as topics vary.

#### MGMT 659 Introduction to International Business Negotiation (3)

*Prerequisite:* IBUS 330 and MGMT 405 with C- or better or consent of instructor. Cross listed with IBUS 659. For course description, see IBUS 659. (May not be repeated under alternate prefix.)

#### MGMT 670 Strategic Organization Design and Change (3)

*Prerequisites:* MGMT 605 with grade of C- or better. Enrollment priority for Management majors. Study of designing and changing organizations to respond and adapt to 21st Century global competitive demands. Focus on applied analysis of strategic organization design at the work group, cross-functional, and organizational levels.

#### MGMT 699 Special Study (1-3)

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive problem analysis under the direction of a management faculty member. Open only to upper division students who have demonstrated ability to do independent work. [CSL may be available; consult index for page reference.]



## Graduate Courses

**MGMT 831 Overview of the Entrepreneurial Process (3)**

*Prerequisites:* BUS 781, 782, 784, 788. The entrepreneurial approach to business decision-making. Stages in the process. Types of entrepreneurial outcomes, including new venture creation.

**MGMT 835 Selected Topics in Entrepreneurship (3)**

*Prerequisite:* MGMT 831. Topics to be specified in the Class Schedule. May be repeated for a total of 6 units.

**MGMT 842 Seminar in Organization Design and Change (3)**

*Prerequisite:* BUS 788. Enrollment priority for graduate students in business, and computing and business. Complex organizations: analyzing interrelationships among structure, strategy, systems, people, and management style. Concepts, practices, and problems related to organization effectiveness impacted by changing domestic and international environments.

**MGMT 848 Seminar in Leadership Patterns and Opportunities (3)**

*Prerequisites:* 700-level courses. Analysis of leadership patterns and opportunities in increasingly complex organizational environments.

**MGMT 855 Seminar in Emerging Issues in Management (3)**

*Prerequisite:* BUS 788. Topic to be specified in Class Schedule. May be repeated when topics vary.

**MGMT 856 Managing the Sustainable Business (3)**

*Prerequisite:* BUS 784. Skills and perspectives required to manage and operate a sustainable business. Focus on the tools necessary to perform each business function (such as marketing, manufacturing, distribution, purchasing, HR, R&D, information systems, finance, accounting) taking environmental and social implications into account.

**MGMT 858 Sustainability and Business Opportunity (3)**

*Prerequisite:* BUS 784. Focus on business innovation to meet society's emerging needs. Practical knowledge and experience in understanding needs not met effectively by current business practices and in developing innovative business strategies to address them.

**MGMT 863 Seminar in Social Entrepreneurship (3)**

Exploration of how entrepreneurial individuals and companies find innovative methods to leverage scarce resources in the pursuit of social values. Special focus on socially responsible business practices used in the apparel industry. (Cross listed with CFS 863. May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**MGMT 899 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive study of a particular problem under the direction of a management faculty member. Open only to graduate students of demonstrated ability to do independent work. [CSL may be available; consult index for page reference.]

## MARINE SCIENCE

**MOSS LANDING MARINE LABORATORIES**

San Francisco State University is one of the cooperating State Universities and Colleges in the use of the Moss Landing Marine Laboratories. The following courses are offered at these facilities.

## Undergraduate Courses

**MSCI 303 Marine Ecology (4)**

*Prerequisites:* ecology, statistics (or concurrent registration in MSCI 304), or consent of instructor. Interrelationships between marine and estuarine organisms and their environment; quantitative data collection and analysis. Classwork, 2 units; laboratory, 2 units.

**MSCI 304 Quantitative Marine Science (4)**

*Prerequisite:* college mathematics. Mathematical methods for the analysis of biological, chemical, and physical data from the marine environment; experimental design, parametric and non-parametric statistics. Classwork, 3 units; laboratory, 1 unit.

**MSCI 305 Marine Science Diving (3)**

*Prerequisites:* certified SCUBA diver, or equivalency as determined by instructor. Skin and scuba diving; five ocean dives include underwater sampling and survey techniques. Successful completion gives NAUI and MLML certification. (No credit toward major.) Classwork, 1 unit; laboratory and fieldwork, 2 units.

**MSCI 312 Marine Birds and Mammals (4)**

*Prerequisite:* upper division college vertebrate zoology; MSCI 303 or BIOL 585 recommended. Systematics, morphology, ecology, and biology of marine birds and mammals. Classwork, 2 units; laboratory and fieldwork, 2 units.

**MSCI 324 Marine Invertebrate Zoology I (4)**

*Prerequisite:* college zoology or consent of instructor; MSCI 303 recommended. Structure, systematics, evolution, and life histories of the major and minor marine phyla. Classwork, 2 units; laboratory, 2 units.

**MSCI 331 Marine Botany (4)**

*MSCI 303 recommended.* Plants of the sea, marshes, and dunes; morphology, taxonomy, and natural history of seaweeds and vascular plants. Classwork, 2 units; laboratory, 2 units.

**MSCI 335 Physiological Ecology of Marine Algae (4)**

*Prerequisites:* MSCI 344, 331, 303, or consent of instructor. Physiological basis for understanding the adaptation of marine algae to their environment. Classwork, 2 units; laboratory, 2 units.

**MSCI 341 Geological Oceanography (4)**

*Prerequisite:* MSCI 342 or 343 (may be taken concurrently). The structure, physiography, and composition of the sea bottom and shoreline. Classwork, 2 units; laboratory, 2 units.

**MSCI 342 Physical Oceanography (4)**

*Prerequisite:* college algebra; college physics recommended. Nature and causes of various oceanic motions including currents, waves, tides, and mixing, and the physical properties of seawater. Limited use of calculus. Classwork, 2 units; laboratory, 2 units.

**MSCI 343 Chemical Oceanography (4)**

*Prerequisite:* one year of college chemistry. Chemistry of the oceans, including major salts, dissolved gases, nutrient ions, carbonate system, transient tracers, and shipboard sampling techniques. Classwork, 2 units; laboratory, 2 units.

**MSCI 344 Biological Oceanography (4)**

*Prerequisites:* general biology, general chemistry. Complexity of organismal-environmental interaction of the plankton, the transfer of organic matter between trophic levels and nutrient cycles. Sampling, shipboard techniques, identification of the plankton, and analytical techniques. Classwork, 2 units; laboratory, 2 units.

**MSCI 699 Individual Study (1-3)**

*Prerequisite:* consent of instructor. Faculty-directed study of selected research problems in the marine sciences. Open to undergraduate students having adequate subject matter preparation for the selected problem. May be repeated for credit.

## Graduate Courses

**MSCI 701 Library Research Methods in Marine Science (1)**

*Prerequisites:* graduate status and consent of instructor. The nature of scientific information. Framework for evaluating and interweaving the history of science with a variety of information sources and bibliographic tools.

**MSCI 706 Molecular Biological Techniques (4)**

*Prerequisites:* graduate status, college genetics or molecular biology or consent of instructor. A laboratory-based overview of concepts and techniques for the isolation, characterization, and analysis of DNA and RNA. Covers standard methods (amplification, cloning, and sequencing), as well as selected specialized techniques (analysis of gene expression), emphasizing application in marine sciences. Classwork, 1 unit; laboratory, 3 units.

**MSCI 708 Scientific Methods (4)**

*Prerequisites:* graduate status and consent of instructor. Information and skills for graduate students beginning their research careers, such as the philosophy of science, scientific writing, design of experiments and sampling programs, and using library and other resources. Classwork, 3 units; laboratory, 1 unit.

**MSCI 711 Ecology of Marine Birds and Mammals (4)**

*Prerequisites:* MSCI 303, MSCI 304, and MSCI 312. Ecology of marine birds and mammals using experimental and sampling methodology. Distribution, abundance, trophic ecology, and behaviors of birds and mammals in Elkhorn Slough. Aerial and boat surveys to determine distribution and abundance. Classwork, 2 units; laboratory, 2 units.

**MSCI 712 Advanced Topics in Marine Vertebrates (1-4)**

*Prerequisites:* MSCI 312, 313 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**MSCI 731 Biology of Seaweeds (4)**

*Prerequisite:* MSCI 331 or consent of instructor. Lecture-discussions on marine macroalgal biology with extensive reading of original literature. Ecologically oriented individual research projects involving laboratory culture and field experimentation. Classwork, two units; laboratory, two units.

**MSCI 733 Advanced Topics in Marine Ecology (1-4)**

*Prerequisites:* MSCI 303 and consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**MSCI 734 Advanced Biological Oceanography (4)**

*Prerequisite:* MSCI 344 or consent of instructor. Experimental techniques in biological oceanography: problems in plankton ecology. Individual research project required. Classwork, 2 units; laboratory, 2 units.

**MSCI 746 Geology of the Monterey Bay Region (4)**

*Prerequisite:* graduate status or consent of instructor. Geology, tectonics, and active naturally occurring processes in the Monterey Bay region and in the Monterey Bay National Marine Sanctuary. The geologic and tectonic history of central California, plate tectonic processes, representative stratigraphy and geomorphology of the Monterey Bay region. Classwork, 1 unit; laboratory, 3 units.

**MSCI 748 Marine Benthic Habitat Mapping Techniques (4)**

*Prerequisite:* graduate status or consent of instructor. The collection and interpretation of geophysical data used to characterize marine benthic habitats. Basic geophysical principals are reviewed. Application of techniques to identify and characterize marine benthic habitats, including echosounders, multibeam bathymetry and backscatter, sidescan sonar, seismic profiling, and GIS. Classwork, 2 units; laboratory, 2 units.

**MSCI 761 Ocean Circulation and Mixing (4)**

*Prerequisite:* MSCI 342; college physics strongly recommended. Mathematical description of the distribution of various properties in the oceans relating to physical and biochemical processes. Distribution of variables, geostrophic method. Classwork, 3 units; laboratory, 1 unit.

**MSCI 763 Applications of Computers in Oceanography (4)**

*Prerequisites:* college mathematics and consent of instructor. Discussion and technical programming with MATLAB for computation and visualization with applications in marine science. Use of existing program libraries for data I/O and analysis. Classwork, 2 units; laboratory, 2 units.

**MSCI 771 Population Biology (3)**

*Prerequisites:* MSCI 303 or BIOL 585 and MSCI 304 or statistics or consent of instructor. Interactions among marine organisms which result in the alteration of population structures. Techniques for assessment and management of animal populations. Classwork, 2 units; laboratory, 1 unit.

**MSCI 773 Marine Environmental Studies of the Gulf of California (4)**

*Prerequisite:* consent of instructor. An analysis of Gulf of California marine environments. Lectures, readings, intensive fieldwork, and writing a scientific paper based on original research. Topics vary. Taught with Mexican faculty and students from La Paz, Mexico. Classwork, 2 units; laboratory, 2 units.

**MSCI 774 Advanced Topics in Oceanography (1-4)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**MSCI 781 Coastal Dynamics (4)**

*Prerequisite:* Graduate standing and MSCI 341 or MSCI 342. Oceanographic dynamics of coastal environments, emphasis on eastern boundary current systems influenced by coastal upwelling. Focus on how physical and geological oceanography interact with each other, and how both affect coastal ecosystem dynamics.

**MSCI 885 Seminar in Marine Biology (2)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated once.

**MSCI 897 Research (1-4)**

*Prerequisites:* filing of petition, "Course by Individual Study," and consent of adviser, instructor, and department chair. Independent investigations for the student with adequate preparation. May be repeated.

**MSCI 898 Master's Thesis (4)**

*Prerequisite:* advancement to candidacy. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**MARKETING***Undergraduate Courses***MKTG 431 Principles of Marketing (3)**

*Prerequisite:* upper division standing. Introduction to marketing principles and functions designed to satisfy an organization's target markets by offering an appropriate marketing mix consisting of product, price, place and promotion in domestic and international settings.

**MKTG 432 Public Relations (3)**

*Prerequisite:* MKTG 431. Communication, attitudes, opinion, ethical conduct, and responsible social performance as foundations of effective public relations. Relevant current events and public relations programs. Models for analysis and practice. Philosophical, historical, and environmental influences.

**MKTG 433 Personal Selling (3)**

*Prerequisite:* MKTG 431. Psychological factors underlying prospect behavior from initial recognition of need to final purchase of products and services.

**MKTG 434 Advertising Theory and Practice (3)**

*Prerequisite:* MKTG 431. Economic aspects of advertising; selection of media, testing effectiveness; organization for carrying out advertising activities, principles, and procedures.

**MKTG 436 Retail Management (3)**

*Prerequisite:* MKTG 431. Organization of a single-unit and multi-unit retail institution. Operational problems: location, layout, merchandise handling, customer service, protection, and expense control.

**MKTG 440 Advertising Creativity and Production (3)**

*Prerequisites:* MKTG 434, MKTG 632 (with grades of C or better). Creation and production of advertising for different clients. Strategy and creative development, with production for a variety of media. Classwork, 2 units; laboratory, 1 unit. [CSL may be available; consult index for page reference.]

**MKTG 441 Business to Business Marketing (3)**

*Prerequisite:* MKTG 431. Transaction channels through which goods and services are sold and purchased. Roles of marketing channel members and intermediaries.

**MKTG 443 Sales Promotion and Publicity (3)**

*Prerequisite:* MKTG 431, MKTG 633. Introduction to the theories and practice of sales promotion and publicity. Consumer behavior, foundations of sales promotions, manufacturer and retailer sales promotion planning; types of trade and consumer sales promotions.

**MKTG 469 Internet Marketing (3)**

*Prerequisites:* MKTG 431 and ISYS 363. Overview of the changes in marketing resulting from the move to the Internet by nonprofits, businesses, and government. Effective interactive marketing practices for consumer firms and business-to-business firms. Web site presentation, exploration, analysis and assessment.

**MKTG 567 Internship in Marketing (3)**

*Prerequisites:* MKTG 431, consent of instructor, department chair, and appropriate employment. Experience in a business field. Principles, theory, and practice applied to real situations. Major report required. May be repeated for a total of 6 units.

**MKTG 632 Marketing Research (3)**

*Prerequisites:* BA 212; MKTG 431; ISYS 263 or pass computer information systems proficiency test. Research design and methodology. Analyze, evaluate, and utilize marketing research findings. Use of case method and computer applications to make marketing decisions.

**MKTG 633 Consumer Behavior (3)**

*Prerequisite:* MKTG 431. Behavioral models explore consumer needs and motivation incorporating psychological theory applied to personality traits, learning, perception, symbolism and communications, social influences and understanding consumer behavior.

**MKTG 637 Sales Management (3)**

*Prerequisite:* MKTG 431 and MKTG 433. Role of sales managers in line and staff planning. Selection, organization, supervision, compensation, and motivation of the sales force. Coordination of sales with other marketing functions. Measuring the sales manager's contribution to profitable operations.

**MKTG 644 Services Marketing (3)**

*Prerequisite:* MKTG 431. Recognizing the importance of services in the global economy, this course provides theory, frameworks and tools for addressing the unique challenge of marketing in industries such as banks, healthcare, transportation and entertainment.

**MKTG 649 Marketing Management (3)**

*Prerequisites:* MKTG 431, MKTG 632, and MKTG 633. Planning, organizing, integrating, and measuring the total marketing plan. Problems of managing the marketing function. Managerial supervision and control of marketing.

**MKTG 680 International Marketing Management (3)**

*Prerequisites:* IBUS 330, MKTG 431. Environmental factors affecting world marketing management; consumer and industrial products market patterns; establishing channels of distribution; management of marketing functions including communication, pricing, product policy, promotion, financing, and logistics.

**MKTG 688 New Product Management Seminar (3)**

*Prerequisite:* MKTG 431. Product and innovation management for creating, developing, and commercializing new products and innovations. Emphasizes the importance of creativity, innovativeness, and entrepreneurship as the sources of new products and new venture businesses.

**MKTG 699 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive problem analysis under the direction of a marketing faculty member. Open only to upper division students who have demonstrated ability to do independent work. [CSL may be available; consult index for page reference.]

## Graduate Courses

**MKTG 860 Strategic Marketing (3)**

*Prerequisite:* BUS 787. Enrollment priority for graduate students in business, and computing and business. Survey of marketing strategy focusing on the development of marketing plans for product markets, including analyses of external, competitive, customer and internal environments, target market selection, statement of differentiation and positioning, product, pricing, communication and promotion.

**MKTG 861 Consumer Behavior Seminar (3)**

*Prerequisite:* BUS 787. Psychology and social sciences' contribution to understanding and predicting consumer behavior. Theories of motivation, clinical and statistical approaches to analysis of motivation, systems and models in predicting consumer response, and applications in advertising and personal selling.

**MKTG 862 Seminar in Advertising (3)**

*Prerequisite:* BUS 787. Influence and communication forces of advertising in light of changing economic, social and governmental conditions; quantitative aspects of advertising problems.

**MKTG 864 Seminar in Marketing Research (3)**

*Prerequisites:* BUS 782 and BUS 787. Review basic research process and design; introduction to advanced topics in marketing research including multivariate analysis techniques. Emphasis on application; extensive use of computer spreadsheet and statistical packages.

**MKTG 867 Public Relations (3)**

*Prerequisite:* BUS 787. Management function that enables organizations to communicate with internal and external audiences to build and maintain mutually beneficial relations; ethical and legal issues in public and media relations. Plus-minus letter grade only.

**MKTG 875 Brand Management (3)**

*Prerequisite:* BUS 787. Concepts, principles, theories and strategies used to manage brands in a competitive environment.

**MKTG 885 Marketing of High-Technology Products and Services (3)**

*Prerequisite:* BUS 787. High-tech products and services are characterized by high levels of market, technology and competitor uncertainty. For such turbulent environments, this course will synthesize decision frameworks and strategies that reflect best-practices in the area of high-technology marketing.

**MKTG 888 Product Development and Management (3)**

*Prerequisite:* BUS 787. Identifies innovative marketing strategies, familiarizes student with product development and management processes for creating new products and bringing them to the market. Professional marketing plans for new or existing products.

**MKTG 899 Special Study (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive study of a particular problem under the direction of a marketing faculty member. Open only to graduate students of demonstrated ability to do independent work. [CSL may be available; consult index for page reference.]

**MATHEMATICS***Undergraduate Courses*

Most mathematics courses are arranged in sequences. A student who has recently passed a higher level course in a sequence may be restricted from enrolling in a lower level course.

All undergraduate-level prerequisites including equivalent courses from other colleges must have been passed with a grade of C or better.

**MATH 040 Early Start Program in Mathematics (1)**

*Prerequisite:* ELM score below 50. Self-paced online course; review all key topics in two remedial math courses MATH 60 and 70. (CR/NR grading only)

**MATH 059 Algebra with Pre-algebra Support (4)**

Equivalent to first year high school algebra. Covers same topics as MATH 60, but with extra time for review of basic concepts needed for success in algebra. Units and grades earned do not count towards graduation requirements.

**MATH 060 Algebra I (3)**

Equivalent to first year high school algebra. Fundamental operations on numbers, polynomials, and rational expressions; factoring, linear equations, and inequalities. Units and grades earned do not count towards graduation requirements.

**MATH 070 Algebra II (3)**

*Prerequisite:* a grade of C or better in MATH 59 or MATH 60, or a score of 42 or above on ELM. Equivalent to second year high school algebra. Exponents, radicals, logarithms, systems of linear equations, complex numbers, quadratic equations. Units and grades earned do not count towards graduation requirements.

**MATH 109 Pre-Calculus (4)**

*Prerequisite:* satisfactory completion of ELM requirement and an acceptable score on the department's Pre-Calculus readiness test. Functions, graphing techniques, exponentials and logarithms, trigonometry.

**MATH 110 Business Calculus (3) [GE]**

*Prerequisite:* ELM exempt status, or grade of C or better in MATH 70. Functions, derivatives, and applications of differentiation, including optimization. Problems involving business, finance, and economics. Elements of basic calculus.

**MATH 124 Elementary Statistics (3) [GE]**

*Prerequisite:* satisfactory completion of ELM requirement. Data analysis, probability, and statistical inference. For students in any field where statistics is a means of communication and a tool for decision making.

**MATH 165 Concepts of the Number System (3)**

*Prerequisites:* satisfactory completion of ELM requirement. Designed for prospective multiple subjects credential candidates. Understanding operations with whole numbers, fractions, and decimals. Problem solving strategies, numeration systems, and elementary number theory.

**MATH 226 Calculus I (4) [GE]**

*Prerequisites:* satisfactory completion of ELM requirement, acceptable score on the department's Calculus readiness test (instructions will be provided after enrollment), and one of the following: MATH 109 or equivalent with a grade of C or better; passing a high school calculus class or trigonometry-based class with a grade of B or better. Graphs. Differentiation: theory, techniques, and applications. Integration: Fundamental Theorem of Calculus and applications. Transcendental functions.

**MATH 227 Calculus II (4)**

*Prerequisite:* MATH 226 with a grade of C or better. Techniques of integration, analytic geometry, polar coordinates, vectors, improper integrals. Sequences and series.

**MATH 228 Calculus III (4)**

*Prerequisite:* MATH 227 with a grade of C or better. Three-dimensional analytic geometry, partial differentiation, multiple integrals, vector calculus. Classwork, 3 units; laboratory, 1 unit.

**MATH 245 Elementary Differential Equations and Linear Algebra (3)**

*Prerequisite:* MATH 228 with a grade of C or better. First and second order linear differential equations, Laplace transform methods, Fourier series, matrix algebra.

**MATH 265 Advanced Number Systems (3) [GE]**

*Prerequisite:* MATH 165 with grade of C or better. Designed for prospective multiple subject credential candidates, continues work done in MATH 165 with decimals and percents. Introduces operations with negative numbers. Additional topics include problem solving and elementary number theory.

**MATH 300 History of Mathematics - GVAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C- or better; MATH 227 or equivalent with a grade of C or better. Survey of the history of mathematics, focusing on topics of interest to secondary mathematics teachers. Emphasis on telling the story of mathematics through researching and writing an expository paper.

**MATH 301 Exploration and Proof - GVAR (3)**

*Prerequisites:* MATH 226 and ENG 214 with grades of C or better. Informal exploration and proofs in mathematics; basic concepts of advanced mathematics courses. Exploratory thinking, elementary logic, sets, mathematical induction, the integers, relations, and functions. (ABC/NC grading only.)

**MATH 310 Elementary Number Theory (3)**

*Prerequisites:* MATH 227 and MATH 301 with grades of C or better. Divisibility, congruencies, power residues, quadratic reciprocity, diophantine equations. Number theoretic functions, continued fractions and rational approximation, partitions.

**MATH 314 Math Circle Seminar (3)**

*Prerequisite:* MATH 226 (or equivalent) with a grade of C or better. Opportunity to relate mathematics being learned to the teaching and learning of mathematics and problem-solving skills at the middle and high school levels through participation in math circles. [CSL may be available; consult index for page reference.]

**MATH 324 Probability and Statistics with Computing (3)**

*Prerequisites:* MATH 227 with grade of C or better, and computer experience that meets the approval of the instructor. Basic concepts of probability and statistics. Data analysis, probability distributions, confidence intervals, and hypothesis testing. Students use computer software to do statistical analyses.

**MATH 325 Linear Algebra (3)**

*Prerequisite:* MATH 227 with a grade of C or better; CSC 330 or MATH 301 recommended. Vector spaces, linear transformations, elements of matrix algebra including determinants and eigenvalues.

**MATH 335 Modern Algebra (3)**

*Prerequisites:* MATH 301 with grade of C or better or consent of instructor; MATH 325 with grade of C or better. Introduction to groups, rings, integral domains, fields, and ordering.

**MATH 338 Introduction to SAS (3)**

*Prerequisites:* MATH 124 (or equivalent) and one of the following: CSC 210, CSC 309, MATH 309, or consent of instructor, with grades of C or better. Using SAS software for data management, presentation of data using graphs and reports, calculation of basic statistics such as mean, standard error, percentiles. Analysis of data using t-test, Chi-square test, regression, and analysis of variance.

**MATH 340 Probability and Statistics I (3)**

*Prerequisite:* MATH 228 with a grade of C or better (may be taken concurrently). *Recommended:* MATH 124 or equivalent. Probability spaces, elementary combinatorics, random variables, independence, expected values, moment generating functions, selected probability distributions, limit theorems and applications.

**MATH 350 Geometry (3)**

*Prerequisites:* MATH 228 and MATH 301 with grades of C or better. Introduction to the origin and foundations of geometry: Euclidean, non-Euclidean geometries, more recent approaches. Quick survey of high school geometry. Classification and representation of motions and similarities. Projections, homogeneous coordinates.

**MATH 370 Real Analysis I (3)**

*Prerequisites:* MATH 228 and MATH 301 with grades of C or better. Critical development of analysis: Bolzano-Weierstrass and Heine-Borel theorems; limits, continuity, differentiability, integrability.

**MATH 375 Field Study for Secondary Teachers (3)**

*Prerequisites:* MATH 301 with grade of C or better, or consent of instructor. Completion of tuberculosis test and fingerprinting for work in the public schools. Opportunity for students to relate the mathematics they are learning to the teaching and learning of mathematics at the middle and high school levels; at the same time, fulfill the 45-hour field experience requirement for prospective teachers.

**MATH 376 Ordinary Differential Equations I (3)**

*Prerequisites:* MATH 228 and MATH 325 with grades of C or better. First-order differential equations, second-order linear equations with constant coefficients, graphical and numerical methods, systems of differential equations and phase-plane analysis, existence and uniqueness theorems.

**MATH 380 Introduction to Functions of a Complex Variable (3)**

*Prerequisite:* MATH 228 with a grade of C or better. Analytic functions of a complex variable. Cauchy's theorem, power series, Laurent series, singularities, residue theorem with applications to definite integrals. Conformal mappings.

**MATH 400 Numerical Analysis (3)**

*Prerequisites:* MATH 228, MATH 325, and either MATH 309 or CSC 210, all with grades of C or better. Numerical solution of algebra and calculus problems. Interpolation and approximations; direct and iterative methods for solutions of linear equations. Gaussian elimination. Numerical differentiation and integration; solution of ordinary differential equations.

**MATH 414 Analyzing DNA Topology with Math/Computational Methods (3)**

*Prerequisite:* MATH 228 (or equivalent) with grade of C or better. Students from mathematics, computer science and biology will be introduced to mathematical and computational techniques used to analyze DNA structure. Strong interaction between math and biology is emphasized. (Paired with MATH 714. Students who have completed MATH 714 may not take MATH 414 for credit.)

**MATH 420 Combinatorics (3)**

*Prerequisites:* MATH 301 and one of the following: MATH 310, MATH 325, CSC 330; with grades of C or better. An introduction to fundamental combinatorial objects, their uses in other fields of mathematics and its applications, and their analysis. Does an object with certain prescribed properties exist? How many of them are there? What structure do they have? Paired with MATH 720. Students who have completed MATH 720 may not take MATH 420 for credit.

**MATH 424 Introduction to Linear Models (3)**

*Prerequisites:* MATH 227 and 325 with grades of C or better. Theory and applications of Linear Models, Multiple Regression, Analysis of Variance for Fixed and Random Effects; Nested and Crossed Treatments; and Experimental Design. Paired with MATH 724. Students who have completed MATH 424 may not take MATH 724 for credit.

**MATH 435 Modern Algebra II (3)**

*Prerequisites:* MATH 335 with a grade of C or better. Group actions, conjugacy classes, Sylow's Theorem. Rings, modules, vector spaces, and finitely generated modules over PIDs. Field extensions and finite fields. Paired with MATH 735. Students who have completed MATH 435 may not take MATH 735 for credit.

**MATH 441 Probability and Statistics II (3)**

*Prerequisite:* MATH 340 with a grade of C or better. Sampling distributions, estimation of parameters, hypothesis testing, goodness-of-fit tests, linear regression, and selected non-parametric methods. (Paired with MATH 741. Students who have completed MATH 741 may not take MATH 441 for credit.)

**MATH 450 Topology (3)**

*Prerequisite:* MATH 370 with grade of C or better. Rigorous development of the theory of metric spaces and topological spaces. Concepts covered include open, closed sets, interior, closure, boundary of sets; connects sets, compact sets, continuous functions defined on metric and topological spaces.

**MATH 460 Mathematical Modeling (3)**

*Prerequisites:* MATH 325 and either MATH 245 or 376, with grades of C or better. Deterministic and stochastic techniques used in mathematical modeling, illustrated and developed through problems originating in industry and applied research.

**MATH 470 Real Analysis II - Several Variables (3)**

*Prerequisite:* MATH 370 with a grade of C or better, or consent of instructor. Sequences and series of functions, uniform convergence, real-analytic functions, metric spaces, open and closed sets, compact and connected sets, continuous functions. (Paired with MATH 770. Students who have completed MATH 770 may not take MATH 470 for credit.)

**MATH 471 Introduction to Fourier and Wavelet Analysis (3)**

*Prerequisite:* MATH 370 with a grade of C or better. Sequences and series of functions, modes of convergence, Fourier series and integrals, wavelet analysis. (Paired with MATH 771. Students who have completed MATH 771 may not take MATH 471 for credit.)

**MATH 475 Capstone Course for Secondary Teachers of Mathematics (3)**

*Prerequisites:* MATH 335 with grade of C or better and one of the following: concurrent enrollment in MATH 370 or consent of instructor. Builds on student's work in upper division mathematics to deepen understanding of the math taught in secondary school. Active exploration of topics in algebra, analysis, geometry and statistics.

**MATH 477 Partial Differential Equations (3)**

*Prerequisite:* MATH 376 with grade of C or better. Study of partial differential equations in rectangular and polar coordinates. Initial and boundary value problems for the heat equation and wave equation. Study of Fourier series, Bessel series, harmonic functions and Fourier transforms. (Paired with MATH 777. Students who have completed MATH 777 may not take MATH 477 for credit.)

**MATH 490 Mathematics Seminar (3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. Development of a selected branch of advanced mathematics; e.g., calculus of variations, non-parametric statistics, differential geometry, game theory. May be repeated for credit as topics vary.

**MATH 565 Concepts of Geometry, Measurement, and Probability (3)**

*Prerequisite:* a grade of C or better in MATH 165. Designed for prospective multiple subjects credential candidates. Spatial relationships and inductive reasoning in geometry, measurement emphasizing the metric system, and elementary statistics and probability.

**MATH 575 Mathematics in the Middle School Classroom (3)**

*Prerequisite:* MATH 565 with grade of C or better, or consent of instructor. Designed for current or prospective middle school teachers of mathematics. Topics in algebra, number theory, and geometry.

**MATH 576 Math in Middle Schools II (3)**

*Prerequisite:* MATH 575 with grade of C or better. Continues to prepare students with content knowledge needed to teach algebra in middle school. Begins work in probability and statistics.

**MATH 577 Math in Middle School III (3)**

*Prerequisite:* MATH 576 with grade of C or better. Continues the work begun in MATH 575 and 576 to prepare students with content knowledge needed to teach algebra, geometry, and probability and statistics in middle school.

**MATH 578 Mathematics in the High School (3)**

*Prerequisites:* MATH 577 or MATH 227 with grade of C or better, or consent of instructor. Designed for current or prospective high school teachers to focus on high school mathematics from an advanced perspective. Content from functions, calculus, and statistics.

**MATH 696 Applied Mathematics Project I (1)**

*Prerequisite:* MATH 460 with grade of C or better. May be replaced by consent of instructor. Preparation under faculty guidance of feasibility study and outline of a project in applied mathematics.

**MATH 697 Applied Mathematics Project II (2)**

*Prerequisite:* successful completion of MATH 696 in a previous year. May not be taken concurrently with MATH 696. Completion of applied mathematics project. Presentation of oral and written report.

**MATH 699 Special Study in Mathematics (1-3)**

*Prerequisites:* approval of the department and the instructor concerned. Special study of a particular problem under the direction of a member of the department. The student must present a written report of the work accomplished to the staff of the department.

**Graduate Courses**

Graduate-level prerequisites including equivalent courses from other colleges must have been passed with a grade of B or better.

**MATH 700 Graduate Teaching Workshop (3)**

*Prerequisite:* GTA status. Discussion and analysis of teaching techniques, peer evaluation, peer classroom observations, guided groups and self analysis of videotapes; group project developing and studying common lesson materials.

### MATH 710 Analysis I (3)

*Prerequisite:* Grade of C or better in MATH 470, or consent of instructor. Outer measure, Lebesgue measure and integration; convergence theorems; bounded variation, absolute continuity, and Lebesgue's theory of differentiation.

### MATH 711 Analysis II (3)

*Prerequisite:* Grade of B- or better in MATH 710, or consent of instructor. Metric spaces, Baire category; Banach and Hilbert spaces, bounded linear operators, dual spaces; the Hahn-Banach, closed graph, and open mapping theorems with applications; functional analysis topics.

### MATH 714 Analyzing DNA Topology with Math/Computational Methods (3)

*Prerequisites:* consent of instructor. For description, see MATH 414. Paired with MATH 414. Students who have completed MATH 414 may not take MATH 714 for credit.

### MATH 720 Combinatorics (3)

*Prerequisites:* MATH 301 with grade of C or better and one of the following MATH 310, MATH 325, or CSC 330. Paired with MATH 420. See MATH 420 for course description. Students who have taken MATH 420 may not take MATH 720 for credit.

### MATH 724 Introduction to Linear Models (3)

*Prerequisites:* MATH 227 and 325 with grades of C or better. Paired with MATH 424. For course description see MATH 424. Students who have completed MATH 724 may not take MATH 424 for credit.

### MATH 725 Advanced Linear Algebra (3)

*Prerequisite:* MATH 335 with a grade of C or better. Vector spaces and linear maps on them. Inner product spaces and the finite-dimensional spectral theorem. Eigenvalues, the singular-value decomposition, the characteristic polynomial, and canonical forms.

### MATH 728 Mathematical Projects and Partnerships (1)

*Prerequisite:* graduate standing or consent of instructor. Discussion and analysis of teaching techniques, peer classroom observations; guided group and self analysis of group projects developing and studying innovative mathematical projects for middle and high school students. (Concurrent involvement in middle/high school projects required.).

### MATH 729 Communicating Mathematics (3)

*Prerequisite:* formal commitment to write an MA thesis or expository paper. Practice of written and oral communication of advanced and research mathematics: prepare research article or monograph, design research poster, prepare and present short and long research talks, write grant proposal.

### MATH 730 Theory of Functions of a Complex Variable (3)

*Prerequisites:* MATH 470 with a grade of C or better, and consent of instructor. Elementary topology of the Euclidean plane, analytic functions, power series, conformal mapping, Cauchy integral formula, residue theorems, power series, Laurent series, analytic continuation, normal families and Riemann mapping theorem.

### MATH 735 Modern Algebra II (3)

*Prerequisite:* Math 335 with a grade of C or better. Paired with MATH 435. For course description see MATH 435. Students who complete MATH 735 may not take MATH 435 for credit.

### MATH 741 Probability and Statistics II (3)

*Prerequisite:* MATH 340 with a grade of C or better. Paired with MATH 441. For course description see MATH 441. Students who have completed MATH 441 may not take MATH 741 for credit.

### MATH 770 Real Analysis II (3)

*Prerequisite:* Grade of C or better in MATH 370, or consent of instructor. Paired with MATH 470. For course description see MATH 470. Students who have completed MATH 470 may not take MATH 770 for credit.

### MATH 771 Introduction to Fourier and Wavelet Analysis (3)

*Prerequisite:* MATH 370 with a grade of C or better; graduate standing or consent of instructor. Paired with MATH 471. For course description see MATH 471. Students who complete MATH 471 may not take MATH 771 for credit.

### MATH 777 Partial Differential Equations (3)

*Prerequisite:* MATH 376 with grade of C or better. Paired with MATH 447. See MATH 447 for course description. Students who have completed MATH 447 may not take MATH 777 for credit.

### MATH 779 Methods of Applied Analysis (3)

*Prerequisites:* MATH 470 or MATH 477 with a grade of 'C' or better and consent of instructor. Boundary and eigenvalue problems of ordinary and partial differential equations; further topics are selected from such areas as calculus of variations; integral transform; integral equations; generalized functions.

### MATH 814 Seminar on Modern Math Methods in Molecular Biology (3)

*Prerequisite:* consent of instructor. Seminar on research in computational biology. Introduction to tools from pure and applied mathematics. Approaches to problems through common computational techniques. Topics to include DNA structure and effects of internal and external agents. Intended for students from a variety of disciplines such as math, computer science, biology and biochemistry.

### MATH 850 Algebra (3)

*Prerequisite:* MATH 435/735 or consent of instructor. Rings and modules; further material is selected from such topics as Wedderburn theory, Noetherian ring theory, field theory, and general algebraic systems.

### MATH 870 Computational Discrete Geometry (3)

*Prerequisites:* CSC 210, CSC 330, MATH 325, or consent of instructor. Comprehensive overview of basic topics in computational discrete geometry: generating functions, complexity theory, convex hull, nearest-neighbor problems, efficient algorithms, etc. (Cross listed with CSC 870. May not be repeated under alternate prefix.)

### MATH 890 Seminar (1-3)

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

### MATH 898 Master's Thesis (3)

*Prerequisites:* advancement to candidacy and approval of graduate adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

### MATH 899 Special Study (1-3)

*Prerequisites:* approval of the department and the instructor concerned. Special study of a particular problem under the direction of a member of the department. The student must present a written report of the work accomplished to the staff of the department.

## METEOROLOGY

### Undergraduate Courses

#### METR 100 Our Dynamic Weather (3) [GE]

*Prerequisite:* Not open to students who have completed METR 104. The nature of weather, including winds, storms, clouds, and precipitation. How and why weather changes, emphasizing the process of scientific discovery. Weather map interpretation and weather forecasting. Designed for non-science majors.

#### METR 101 Our Dynamic Weather Lab (1) [GE]

*Prerequisite:* METR 100 (may be taken concurrently); not open to students who have completed METR 104. Weather observations and instruments, weather map and satellite image analysis and interpretation, and weather forecasting, emphasizing the process of scientific discovery. Extra fee required.

#### METR 104 Our Dynamic Weather Lecture and Lab (3) [GE]

*Prerequisite:* not open to students who have completed METR 100 and/or 101. The nature of weather, including winds, storms, clouds, and precipitation. How and why weather changes, emphasizing the process of scientific discovery. Weather map interpretation and weather forecasting. Designed for non-science major. Classwork, 2 units; laboratory, 1 unit. Extra fee required.

#### METR 201 Physical Processes in the Atmosphere (3)

*Prerequisites:* Math 109 or equivalent or satisfactory score on calculus pretest. Observed behaviors of the atmosphere and the processes and principles that explain and predict them. Algebra-based problem solving. Classwork, 2 units; laboratory, 1 unit.

#### METR 301 Weather Chart Analysis and Discussion (1)

*Prerequisite:* METR 201 (may be taken concurrently). Weather chart analysis techniques; weather briefing and discussion. Laboratory. (Paired with METR 801. Students who have completed METR 301 may not take METR 801 for credit.) (Formerly METR 400.)

#### METR 302 The Violent Atmosphere and Ocean (3) [GE]

*Prerequisite:* upper division standing or consent of instructor. Atmosphere and ocean as agents of catastrophic change. Fluctuations in atmospheric and oceanic circulations and their environmental impacts. Implications of human modification of the ocean-atmosphere system. Weather variability as evidenced by recent floods, droughts, and severe weather. Designed for non-science majors.

#### METR 320 Introduction to Fluid Mechanics for Earth-Environmental Science (4)

*Prerequisites:* MATH 227 and PHYS 240, or consent of instructor. Cross listed with OCN 320. For course description, see OCN 320. (May not be repeated under alternate prefix.)

#### METR 356 California Weather Events (3) [GE]

*Prerequisite:* upper division standing or consent of instructor. Investigation of the basic meteorology of normal and abnormal weather events in California.

#### METR 405 Planetary Climate Change (4)

*Prerequisites:* at least 9 units of physical sciences coursework. Cross listed with GEOL/OCN 405. For course description, see GEOL 405. (May not be repeated under alternate prefix.)

**METR 410 Atmospheric Thermodynamics and Cloud Physics (4)**

*Prerequisites:* METR 100 or METR/OCN 201; METR/OCN 460 (may be concurrent); and PHYS 220. Composition, structure, and thermodynamics of the atmosphere; cloud and precipitation formation processes. Classwork, 3 units; laboratory, 1 unit. Extra fee required.

**METR 415 Remote Sensing of the Atmosphere and Ocean (3)**

*Prerequisites:* MATH 227; and METR/OCN 201 or METR 410. PHYS 230 recommended. Physical principles and applications of satellite and radar remote sensing of the atmosphere and ocean. Classwork, 2 units; laboratory, 1 unit. (Paired with METR 715. Students who have completed METR 715 may not take METR 415 for credit.)

**METR 420 Atmospheric Dynamics I (4)**

*Prerequisites:* PHYS 220; MATH 228; and METR 410 or consent of instructor. MATH 245 and METR 465 recommended. Basic dynamical equations governing atmospheric motions, particularly on large scales. Classwork, 3 units; laboratory, 1 unit. Extra fee required.

**METR 430 Weather Analysis and Forecasting I - GVAR (4)**

*Prerequisites:* METR 201, MATH 227, PHYS 220, and ENG 214 or its equivalent with a C- or better; concurrent enrollment in METR 400. Weather analysis and forecasting as an application of the principles of atmospheric physics and dynamics. Weather satellite analysis techniques. Operational forecasting. Classwork, 2 units; laboratory, 2 units.

**METR 450 Atmosphere-Ocean Interactions (3)**

*Prerequisite:* METR/OCN 201 or METR 410; and METR 420 or OCN 420. Atmospheric behavior in the marine environment. Fluxes of energy, momentum, and material between the atmosphere and sea surface. Atmospheric/ocean feedbacks. Classwork, 2 units; laboratory and fieldwork, 1 unit. (Cross listed with OCN 450. May not be repeated under alternate prefix.)

**METR 460 Use of Computers in Meteorology and Oceanography (2)**

*Prerequisite:* a college course in meteorology or oceanography. Use of computers to access, display, and analyze meteorological and oceanographic data. UNIX operating system, text editing, electronic mail, file transfers between computers, weather graphics software, MATLAB software, creating web pages. (Cross listed with OCN 460. May not be repeated under alternate prefix.)

**METR 465 Computer Programming with Applications in Meteorology and Oceanography (3)**

*Prerequisites:* METR/OCN 201 or METR 410; METR/OCN 460 or familiarity with UNIX; and METR/OCN 407 (may be concurrent). Principles of computer programming, illustrated with applications in meteorology and/or oceanography. (Cross listed with OCN 465. May not be repeated under alternate prefix.)

**METR 470 Meteorological and Oceanic Observing Techniques and Systems (2)**

*Prerequisites:* METR/OCN 201, METR 410 or consent of instructor. Operation, design, and calibration of atmospheric and oceanic monitoring instruments. Experience with instrument types, data processing, and techniques applied to problems in atmospheric pollution, global weather, and dynamical oceanography. Classwork, 1 unit; laboratory and fieldwork, 1 unit. (Cross listed with OCN 470. May not be repeated under alternate prefix.)

**METR 500 Weather Analysis and Forecasting II (3)**

*Prerequisites:* METR 420 and METR 430GW; concurrent enrollment with METR 520. Quasi-geostrophic theory in the understanding of mid-latitude synoptic systems. Evolution and motion of mid/upper tropospheric waves. Fronts and jet streaks. Mesoscale and severe weather meteorology. Classwork, 2 units; laboratory, 1 unit.

**METR 520 Atmospheric Dynamics II (2)**

*Prerequisites:* METR 420, MATH 245, PHYS 240 recommended. Development of the vorticity equation and the quasi-geostrophic approximation to the full dynamical equations governing atmospheric behavior. Classwork, 1 unit; laboratory, 1 unit.

**METR 535 Analysis and Prediction of Severe Storms (3)**

*Prerequisites:* senior or graduate standing in meteorology; METR 430 and 520; consent of instructor. Must be taken concurrently with METR 530. Large and local-scale controls on severe storms. Morphology of severe thunderstorms. Thunderstorm spectrum. Tornadoic storms. Severe storms forecasting and analysis techniques. Paired with METR 835. Students who have completed METR 835 may not take METR 535 for credit.

**METR 540 Numerical Weather Prediction (2)**

*Prerequisites:* METR 420, 465; MATH 245. Basic principles of atmospheric computer forecast models, parameterizations, use and critical evaluation of models and model output. Classwork, 1 unit; laboratory, 1 unit.

**METR 590 Consulting Meteorology and Oceanography (2)**

*Prerequisites:* senior standing in meteorology, oceanography, geology, or geography and consent of instructor. Forensic meteorology and climatology, climatological and meteorological site assessments, site specific operational forecasting, AMS program for professional certification as consulting meteorologist, the meteorologist as expert witness, depositions and court testimony. Paired with METR 790. Students who have completed METR 790 may not take METR 590 for credit.

**METR 652 Geoscience Partners in K-12 Education (4)**

*Prerequisite:* completion of at least one upper division course in your major field of study. Cross listed with GEOL/OCN 652. For course description, see GEOL 652. (May not be repeated under an alternate prefix.)

**METR 693 Cooperative Education Program (6-12)**

*Prerequisite:* A U 293 or consent of instructor. Intended for meteorology majors. Supervised employment in an academically relevant field of study. Objectives are career development, occupational experience, and educational subsidy. Units do not count toward major. Limited free elective credit is available. CR/NC grading only.

**METR 694 Cooperative Education in Meteorology (1-3)**

*Prerequisite:* AU 294 or consent of instructor. Intended for meteorology majors. Supervised employment in an academically relevant field of study. Objectives are career development, occupational experience, and educational subsidy. Units do not count toward degree. Limited free elective credit is available.

**METR 697 Senior Project (1-3)**

*Prerequisites:* senior standing in meteorology, 3.0 GPA in major course work, and consent of meteorology faculty adviser. Directed, original research on a meteorological problem. May be repeated for a total of 6 units.

**METR 698 Public Weather Forecasting (1-3)**

*Prerequisites:* METR 100 or METR 200 and meteorology major or in Broadcast Meteorology Certificate program. Weather forecasting tailored for public use. Forecasting and nowcasting in the media. Weather briefing duties of intern forecaster. May be repeated for a total of 3 units.

**METR 699 Special Study (1-3)**

*Prerequisite:* GPA of 3.0 or higher in course work in the major and consent of meteorology or oceanography faculty adviser. Special study of meteorology or oceanography, directed by a member of the meteorology or oceanography faculty. Written report of work required.

**Graduate Courses****METR 700 Graduate Seminar in Geosciences (2)**

*Prerequisites:* graduate standing. Cross listed with GEOL/OCN 700. For course description, see GEOL 700. (May not be repeated under alternate prefix.) Plus-minus letter grade only.

**METR 701 Research Methods in Geosciences (3)**

*Prerequisite:* GEOL/METR/OCN 700 or consent of instructor. Cross listed with GEOL/OCN 701. For course description, see GEOL 701. (May not be repeated under alternate prefix.)

**METR 702 Quantitative Methods in Geosciences (3)**

*Prerequisites:* courses in basic statistics, calculus, and computer applications, or consent of instructor. Cross listed with GEOL/OCN 702. For course description, see GEOL 702. (May not be repeated under alternate prefix.) Classwork, 2 units; laboratory and fieldwork, 1 unit.

**METR 715 Remote Sensing of the Atmosphere and Ocean (3)**

*Prerequisites:* graduate or senior standing; MATH 227; and METR/OCN 201 or METR 410. PHYS 230 recommended. For course description, see METR 415. Classwork, 2 units; laboratory, 1 unit. (Paired with METR 415. Students who have completed METR 415 may not take METR 715 for credit.)

**METR 790 Consulting Meteorology and Oceanography (2)**

*Prerequisites:* graduate or senior standing in meteorology, oceanography, geology, or geography and consent of instructor. For course description, see METR 590. Paired with METR 590. Students who have completed METR 590 may not take METR 790 for credit.

**METR 792 Our Dynamic Classroom (1)**

*Prerequisite:* graduate standing or consent of instructor. Cross listed with GEOL/OCN 792. For course description, see GEOL 792. (May not be repeated under alternate prefix.) May be repeated under same prefix for 3 units for degree credit. Plus-minus letter grade only.

**METR 798 Advanced Public Weather Forecasting (1-3)**

*Prerequisite:* METR 698 and/or consent of instructor. Direction of a forecast office. Students assume lead forecaster responsibilities in administration of the SFSU Public Weather Forecast Center.

**METR 801 Weather Chart Analysis and Discussion (1)**

*Prerequisite:* graduate standing or consent of instructor. Paired with METR 301. For course description, see METR 301. (Students who have completed METR 301 may not take METR 801 for credit.) (Formerly METR 800.)

**METR 825 Synoptic Meteorology of Mid-latitude Oceans (3)**

*Prerequisites:* METR 502 and/or consent of instructor. Synoptic scale analysis and discussion of the extratropical systems of the mid-latitude oceans. Organized convective systems in the eastern Pacific and adjacent coastal margins. California weather patterns.

**METR 835 Analysis and Prediction of Severe Storms (3)**

*Prerequisites:* graduate or senior standing in meteorology; METR 430 and 520; consent of instructor. Must be taken concurrently with METR 530. For description, see METR 535. Paired with METR 535. Students who have completed METR 535 may not take METR 835 for credit.

**METR 850 Physics of the Atmosphere-Ocean Interface (3)**

*Prerequisite:* graduate or senior standing. Interactions between the ocean and atmosphere; exchange of heat, moisture, and momentum at different geographical locations and times. Impact of ocean-atmosphere interactions on climate. Classwork, 2 units; laboratory and fieldwork, 1 unit.

**METR 896 Directed Reading in the Geosciences (3)**

*Prerequisite:* graduate status. Supervised research in a specific topic, concept, or area chosen on the basis of individual student need. Readings, tutorial discussion, and research report or creative projects required.

**METR 897 Research Project (1-3)**

*Prerequisites:* graduate status; GEOL/METR 700 and 701. Thesis research incorporates all aspects of investigative studies from data collection to data analysis. May be repeated for a total of 6 units.

**METR 898 Master's Thesis (3)**

*Prerequisites:* graduate status; GEOL/METR 700, 701, and 702. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**METR 899 Special Study (1-3)**

*Prerequisites:* graduate status in meteorology; approval of the department and the instructor. Special study in the laboratory and field under the direction of a member of the department. The student must present a detailed written report of the work accomplished to the faculty of the department. May be repeated for a total of 3 units.

**MIDDLE EASTERN & ISLAMIC STUDIES***Undergraduate Courses***MEIS 300 Foundations in Middle East and Islamic Studies (3)**

*Prerequisite:* upper division standing or consent of instructor. Introductory, interdisciplinary course on the cultures, politics, and histories of the Middle East, North Africa, and other Muslim societies. (Cross listed with BSS 300. May not be repeated under an alternate prefix.)

**MEIS 301 Islam: Interpretation and Practice (3)**

*Prerequisite:* upper division standing. Introduction into the origin, spread, and early writings of Islam, and an overview of the diversity of contemporary Islamic practice around the globe. (Cross listed with ANTH 318. May not be repeated under alternate prefix.)

**MEIS 431 Constructing Kurdistan (4)**

*Prerequisites:* PLSI 250, or PLSI 410, or HIST 605, or IR 323, or IR 324, or MEIS 300; upper division standing; or consent of instructor. Cross listed with PLSI 431. For course description, see PLSI 431. (May not be repeated under alternate prefix.)

**MODERN GREEK STUDIES***Undergraduate Courses***MGS 150 Modern Greek I (4) [GE]**

Modern (demotic) Greek for beginners emphasizing oral expression, listening comprehension, reading and writing. Grammar introduced in context of readings.

**MGS 151 Modern Greek II (4) [GE]**

*Prerequisite:* MGS 150 or equivalent. Continuation of first semester Modern Greek.

**MGS 152 Modern Greek Conversation (2)**

*Prerequisite:* MGS/GRE 150 or consent of instructor. Emphasizing aural-oral skills, provides practical contexts for conversational modern Greek derived from instructional videos, literary texts, and newspapers.

**MGS 315 Modern Greek Folk Culture (3)**

*Prerequisites:* ENG 214 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**MGS 316 Contemporary Culture of Greece (3)**

*Prerequisite:* ENG 214 or equivalent. The culture of contemporary Greece within the framework of the social sciences, particularly anthropology and folklore. (Cross listed with ANTH 316. May not be repeated under alternate prefix.)

**MGS 350 Greece and the Balkans (3)**

*Prerequisite:* ENG 214 or equivalent. History of Greece and the Balkans from the Fall of Constantinople to the present. (Cross listed with HIST 350. May not be repeated under alternate prefix.)

**MGS 365 Modern Greek III (4) [GE]**

*Prerequisite:* MGS 151 or equivalent. Continuation of second semester Modern Greek. Accelerated emphasis on conversation, grammar and composition. MGS 380 British and American Travellers to Greece (3)

*Prerequisite:* ENG 214 or equivalent. Survey of the genre of travel writing to Greece in British and American letters from the Romantic to the postmodern periods. Authors include Byron, Wilde, Woolf, and Miller. (Cross listed with ENG 380. May not be repeated under alternate prefix.)

**MGS 397 Greek American Literature (3)**

*Prerequisite:* ENG 114 or equivalent. A survey of the major Greek American authors and poets of the 20th century. (Cross listed with ENG 398. May not be repeated under alternate prefix.)

**MGS 465 Modern Greek Poetry in Comparative Perspective (3)**

*Prerequisite:* ENG 214 or equivalent. Survey of Greece's prominent modern poets in comparison with major Anglo-American and European poets. Poets to be studied can include Cavafy, Seferis, Elytis, Mastroiaki, Yeats, Eliot, Pound, and Rich. (Cross listed with CWL/C W 465. May not be repeated under alternate prefix.)

**MGS 470 Modern Greek IV (4) [GE]**

*Prerequisite:* MGS 365 or equivalent. Continuation of third semester Modern Greek. Conversation, grammar and composition writing. Reading and translating of representative literary and other texts. MGS 497 Modern Greek Literature (3)

*Prerequisite:* ENG 214 or equivalent. Introduction to Greece's major modernist and postmodernist writers. Exploration of experimental writing techniques using 20th Century literature. (Cross listed with CW 497. May not be repeated under alternate prefix.)

**MGS 510 The Byzantine Empire (3)**

*Prerequisite:* ENG 214 or equivalent. Political, social, economic, cultural history of Byzantine empire from 7th to 15th centuries A.D.; relations of Byzantium with Germanic, Slavic, Arabic, and Turkic-speaking neighbors. (Cross listed with CLAS 510/HIST 326. May not be repeated under alternate prefix.)

**MGS 555 Introduction to Modern Greek Literary Texts (3) [GE]**

*Prerequisite:* MGS 470 or equivalent. Reading and translation of selected texts in modern Greek literature. Modern Greek grammar for upper division students.

**MGS 699 Independent Study (1-3)**

*Prerequisite:* upper division standing or consent of instructor. Supervised intensive, individual undergraduate work, largely of a research nature, in Modern Greek Studies, e.g., language, literature, folklore and/or culture. Culminates in a paper.

**MUSEUM STUDIES***Undergraduate Course***M S 605 San Francisco Bay Area Museums: Behind the Scenes (3)**

*Prerequisites:* ENG 214 and consent of instructor. Study of San Francisco Bay Area museums: their history, organization, collections stewardship, exhibits, public programs, and mission. Includes structured "behind-the-scenes" tours of local museums. Paired with M S 705. Students who have taken M S 705 may not take M S 605 for credit.

*Graduate Courses***M S 680 Cultural Heritage Preservation (3)**

*Prerequisite:* ENG 214 or equivalent. Archaeological and architectural conservation: history of U.S. legislation and implementation, international organizations, major national and international projects, philosophy of preservation strategies, conservation ethic. Paired with M S 780. Students who have completed M S 680 may not take M S 780 for credit.

**M S 700 History and Organization of Museums (3)**

*Prerequisite:* classified graduate status and/or consent of instructor. Major museology facets, including analysis of diverse museums, career options, ethics, laws, funding, and literature. Museum operation and community-museum relationships through on-site observations, interviews, and research.

**M S 705 San Francisco Bay Area Museums: Behind the Scenes (3)**

*Prerequisites:* classified graduate status and consent of instructor. For course description, see M S 605. Paired with M S 605. Students who have taken M S 605 may not take M S 705 for credit.

**M S 707 Perspectives on Museums: A Professional Forum (1)**

*Prerequisite:* Museum Studies major or consent of instructor. Guest speakers from the museum community to provide graduate students with perspectives on current practices and trends in the museum work place.

**M S 708 Museums: Global Operations (1)**

*Prerequisite:* graduate standing or consent of instructor. Examination of museum efforts to incorporate global perspectives into their activities. Topics include analyses of international partnerships and globally-focused museum activities, the challenges of such work, and basic resources on international museum efforts.

**M S 710 Museum Education and School Outreach (3)**

*Prerequisite:* classified graduate status and consent of instructor. Overview and evaluation of educational services in museums, including the planning and implementation of educational programs and establishing a liaison with public schools. Designed for graduate students, museum professionals, and public school teachers. [CSL may be available; consult index for page reference.]

**M S 715 Interpretation in Museums and Heritage Organizations (3)**

*Prerequisite:* classified graduate status and consent of instructor. Analysis of the methods and styles of interpretation of museum collections and heritage facilities (e.g., historic sites, historic houses, landmarks, open-air facilities). Development and improvement of interpretive programs.

**M S 720 Museum Curatorship and Collecting (3)**

*Prerequisites:* classified graduate status and consent of instructor. Analysis of the duties of museum curators, including academic research, collections documentation, collections development, donor cultivation, ethical collection practices, exhibition concept development, and the curator's position within the institution and community. May be repeated for a total of 6 units.

**M S 740 Museum Conservation and Restoration (1)**

*Prerequisite:* classified graduate status in M.S. Theory and practice in museum conservation and restoration, using the Suto Egyptian and permanent collections. Analysis of museum artifacts.

**M S 780 Cultural Heritage Preservation (3)**

*Prerequisite:* graduate status or consent of instructor. For course description, see M S 680. Paired with M S 680. Students who have completed M S 780 may not take M S 680 for credit. (Formerly CLAR 860.)

**M S 790 Archives Management and Preservation (2)**

*Prerequisite:* MS major or consent of instructor. History, principles, methodologies, and practical administration of non-electronic archives (original documents, maps, photographic materials, manuscripts, diaries, albums, government records); practical, hands-on experience with preservation methods. (Plus-minus letter grade only.)

**M S 791 Integrated Pest Management in Heritage Facilities (1)**

*Prerequisite:* Museum Studies major or consent of instructor. Development of plans to prevent pest infestations in museums and related heritage facilities. Overview of current methods of chemical and non-chemical methods of control, legacy of past chemical practices in museums, and OSHA regulations for employee safety.

**M S 792 Museum Security Systems (1)**

*Prerequisite:* Museum Studies major or current museum employee. Analysis and implementation of institutional procedures and new technology for theft prevention and mitigation in museums.

**M S 793 Museum Facilities Management (1)**

*Prerequisite:* Museum Studies major or consent of instructor. Analysis of building and grounds issues; risk management; emergency/disaster preparedness; fire suppression technology; HVAC systems; new construction materials.

**M S 794 Museum Collections Management and Registration (3)**

*Prerequisite:* classified graduate status in museum studies. Tasks performed by museum registrars: documentation of collections, loan procedures, collections storage, museum security, disaster preparedness, traveling exhibitions and customs, insurance, and development of collections management policies.

**M S 795 NAGPRA for Museum Registrars and Curators (2)**

*Prerequisite:* classified graduate status and consent of instructor. For museum registrars and curators, analysis of legal compliance and practical implementation of the Native American Graves Protection and Repatriation Act.

**M S 800 Museum Management, Law, and Ethics (3)**

*Prerequisite:* classified graduate status in museum studies. Legal issues of concern to museum professionals and artists; laws governing acquisition of art objects, authentication, taxes, liability, censorship, artists' rights, copyright, museum organization, and labor relations.

**M S 810 Information Technology in Museums (3)**

*Prerequisite:* classified graduate status in museum studies or consent of instructor. How information technology is used in museums, including internal management functions and external public uses of technology in education and collections management.

**M S 830 Museum Governance (3)**

*Prerequisite:* classified graduate status or consent of instructor. Analysis of governance in museums, including: trusteeship, board issues, roles of director and senior management, governance conflicts, mission statements, use of advisory committees and support groups, collections issues, planning, and recent controversies.

**M S 840 Museums and Cultural Property (3)**

*Prerequisite:* classified graduate status or consent of instructor. Examination of legal and ethical issues concerning cultural property in museums: museum acquisition policies; international art/antiquities trade; auction houses; WWII-era looting; repatriation; ownership dispute resolution; relationships with descendant communities.

**M S 845 Art Law (2)**

*Prerequisite:* Museum Studies major or consent of instructor. Artists' expressive, economic, and moral rights; intellectual property issues; title and theft; art merchants and authenticity; museum acquisitions; IRS regulations pertaining to museums contracts and documentation in museums.

**M S 850 Museum Volunteer Management and Membership (3)**

*Prerequisite:* classified graduate standing or consent of instructor. Development and management of volunteer and membership programs for museums and heritage organizations. Volunteer recruitment/retention, sound practices for producing and managing membership programs, and training and daily volunteer operations in the museum and heritage environment.

**M S 860 Fundraising in Museums (3)**

*Prerequisite:* classified graduate status or consent of instructor. Examination of fundraising in museums, budget building, budget cycle, legal and tax issues of fundraising, as well as specific fundraising methods (gifts, planned giving, bequests, endowments, e-commerce, grants, contracts).

**M S 870 Visitor Studies and Audience Development (3)**

*Prerequisite:* classified graduate status and consent of instructor. Demographic and sociological analysis of museum visitors (Visitor Studies) and non-visitors (Audience Research). Methodology and applications of visitor/audience research to improve museum facilities and exhibitions.

**M S 875 Public Relations and Marketing for Museums (3)**

*Prerequisite:* classified graduate standing and consent of instructor. Development of and best practices in strategic marketing, earned income operations, and public relations for museums and heritage organizations.

**M S 880 Museum Internship (3)**

*Prerequisite:* M S 700 and classified graduate status in Museum Studies. Practicum in collections management, exhibition design, fundraising management, publishing, curation, educational programming, conservation under the supervision of a professional museum employee and SFSU instructor. May be repeated for a total of 6 units.

**M S 885 Professional Conferences and Workshops (1-3)**

*Prerequisite:* consent of instructor. Attendance, participation, and evaluation at professional conferences, workshops, or short courses offered by museums, professional associations, or other recognized institutions. Prior approval by Museum Studies Program is mandatory. May be repeated for a total of 3 units. (CR/NC grading only.)

**M S 888 Project Management for Museums (1)**

*Prerequisites:* MS Majors only. Prior enrollment in MS 720, MS 850, or instructor consent. Under faculty guidance, development, logistics, budgeting, and time management for museum exhibits, catalogue publishing, conferences/sessions for museum professionals, or special events for schools/general public.

**M S 888 Project Management for Museums (2)**

*Prerequisites:* MS Majors only. Prior enrollment in MS 720, MS 850, or instructor consent. Under faculty guidance, development, logistics, budgeting, and time management for museum exhibits, catalogue publishing, conferences/sessions for museum professionals, or special events for schools/general public.

**M S 894 Creative Work Project (3)**

*Prerequisite:* advancement to candidacy for the master's degree. Original creative work project which must be developed with the approval of the Museum Studies program. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**M S 897 Directed Thesis Advising and Support (3)**

Directed advising and support for students writing theses or creative works. May be taken before enrollment in MS 894 or MS 898. Once students have taken MS 894 or MS 898 they must take MS 897 every Spring semester until they finish the degree. CR/NC grading only.



**M S 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the Master of Arts and recommendation of major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**M S 899 Special Study (3)**

*Prerequisite:* consent of museum studies program director. Professional-level, independent study of a particular aspect of museum work under the guidance of a faculty member in the Museum Studies Program. Open only to museum studies students. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

**MUSIC***Undergraduate Courses***MUS 120 Basic Music I (3) [GE]**

*Emphasis to be specified in Class Schedule.* Fundamentals of music applied through development of basic skills in music reading, writing, listening, and singing or playing selected instruments. Open to all students without prerequisite. Classwork, 2 units; activity, 1 unit. May not be repeated for credit.

**MUS 121 Basic Music II (3) [GE]**

*Prerequisite:* MUS 120 or consent of instructor. *Emphasis to be specified in Class Schedule.* Use of music materials in functional and contemporary harmony through writing and performing (singing or playing selected instruments). Classwork, 2 units; activity, 1 unit. May not be repeated for credit.

**MUS 130 Rudiments of Music Theory (3)**

*Prerequisite:* satisfactory performance audition. *Concurrent enrollment in a basic piano class recommended.* Comprehensive review and drill of music fundamentals. Development of aural skills; written and analytical knowledge of simple harmony. For music majors only.

**MUS 150 Concert Music (0)**

Audience participation at designated on-campus concerts scheduled by the Department of Music. Required each semester of music majors.

**MUS 201 Class Piano I (1)**

*Prerequisites:* satisfactory performance audition, ability to read treble and bass clefs, music major or minor (priority given to music majors; others by departmental permission). Instruction includes techniques, repertoire, and keyboard harmony.

**MUS 202 Class Piano II (1)**

*Prerequisites:* satisfactory performance audition; MUS 201 or equivalent. MUS 202 is normally taken concurrently with MUS 232. Priority given to music majors. Laboratory.

**MUS 203 Class Piano III (1)**

*Prerequisites:* satisfactory performance audition; MUS 202 or equivalent. MUS 203 is normally taken concurrently with MUS 233. Priority given to music majors. Laboratory.

**MUS 206 Beginning Jazz/Pop Piano (1)**

*Prerequisite:* MUS 202 with a grade of C or better or consent of instructor. Introduction to jazz and popular piano performance: left and right hand chord voicings, right hand improvisation, and rhythmic comping in a variety of stylistic idioms.

**MUS 211 Class Voice I (1)**

*Prerequisites:* major/minor in music (priority); major in lyric theatre; others by departmental permission; ability to read music. Foundational techniques in singing, tone production, musicianship, and interpretation. Laboratory. (Not open to students who have completed MUS 311.) (Formerly MUS 311.)

**MUS 212 Class Voice II (1)**

*Prerequisites:* major/minor in music (priority); major in lyric theatre; others by departmental permission; MUS 311 or equivalent. Continuation of MUS 211: foundational techniques in singing, tone production, musicianship, and interpretation. Laboratory. (Not open to students who have completed MUS 312.) (Formerly MUS 312.) May be repeated for credit.

**MUS 221 Fundamentals of Ear Training and Musicianship I (2)**

*Prerequisites:* satisfactory performance audition; knowledge of written scales, key signatures, rhythms, intervals, and triads; ability to sing scales. Concurrent enrollment advised in MUS 231 and Class Piano. Priority given to music majors. Ear training and sight singing. Melodic, rhythmic, and harmonic dictation. Laboratory.

**MUS 222 Fundamentals of Ear Training and Musicianship II (2)**

*Prerequisite:* satisfactory performance audition; MUS 221 or equivalent. Concurrent enrollment advised in MUS 232. Priority given to music majors. Laboratory.

**MUS 223 Fundamentals of Ear Training and Musicianship III (2)**

*Prerequisite:* satisfactory performance audition; MUS 222 or equivalent. Priority given to music majors. Laboratory.

**MUS 224 Ear Training and Musicianship IV (1)**

*Prerequisite:* MUS 223 or consent of instructor. Sight-reading, keyboard harmony and figured bass, harmonic analysis, ear training, and harmonic and rhythmic dictation.

**MUS 230 Music Growth and Development in Childhood (3)**

Development of fundamentals and principles for selecting, evaluating, performing, and demonstrating music materials for children; the place of music in the child's education.

**MUS 231 Contrapuntal Analysis and Synthesis (3)**

*Prerequisites:* satisfactory performance audition; MUS 130 or examination. Concurrent enrollment advised in MUS 221 and Class Piano. Non-majors with consent of instructor. Contrapuntal form and procedures through written exercises, analysis, and composition in two to four parts based upon examples from the literature.

**MUS 232 Diatonic Analysis and Synthesis (3)**

*Prerequisite:* satisfactory performance audition; MUS 231. Concurrent enrollment advised in MUS 222 and Class Piano. Non-majors with consent of instructor. Common practice harmonic and formal procedures through written exercises, analysis, and composition: triads, inversions, cadences, seventh chords, binary, ternary, and rondo forms based upon the literature.

**MUS 233 Chromatic Analysis and Synthesis (3)**

*Prerequisites:* satisfactory performance audition; MUS 231 and 232. Concurrent enrollment advised in MUS 223 and Class Piano. Non-majors with consent of instructor. Procedures found in chromatic music through written exercises, analysis, and composition, including secondary dominants, modulation, altered chords, theme-and-variations, and sonata forms based upon the literature.

**MUS 270 Improvisation (1)**

*Prerequisite:* MUS 203 or 206 and MUS 233 with grade of C or better. Emphasis on integrating fundamentals across styles and interdisciplinary practices. May be repeated upon advisement.

**Applied Instruction Series**

Class and individual instruction in instruments and voice. Class instruction is listed in the *Class Schedule*. Upper division applied instruction is available only with departmental permission.

**MUS 301 Class Piano IV (1)**

*Prerequisite:* MUS 203 or equivalent. Priority given to music majors. Intermediate class piano for voice, composition, instrumental, and music history majors. Laboratory.

**MUS 302 Class Piano V (1)**

*Prerequisite:* MUS 301 or equivalent. Priority given to music majors. Intermediate class piano. May be repeated for credit. Laboratory.

**MUS 303 Piano Major (1)**

*Prerequisite:* audition. For music majors only. Advanced individual projects in performance and literature for piano. May be repeated for a total of 8 units.

**MUS 309 Singing for Self Expression I (1) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Basic elements of vocal technique. Analysis of individual problems and corrective vocalises. Breath control, tone production, placement, phonetics in group and individual practice and performance; special needs of self-presentation.

**MUS 313 Voice Major (1)**

*Prerequisites:* music major, audition, departmental permission, and simultaneous enrollment in MUS 150, MUS 394, and in a vocal or choral ensemble as assigned. B.A. students must have completed lower division preparation. Vocal study for the music degree. Repeatable up to 8 units for music performance majors; for other majors, repeatable up to 2 units.

**MUS 351 Class Orchestral and Band Instruments I (1)**

*Prerequisites:* ability to read music; music major/minor; others by departmental permission. Fundamentals in embouchure, fingering, articulation, breath control, and hand position. May be repeated with varying content.

Class Percussion I  
Class Guitar I

**MUS 353 Instrumental Major (1)**

*Prerequisites:* music major; departmental permission; and simultaneous enrollment in MUS 150 and MUS 371, 372, or 377 (for guitarists) as assigned. Performance and literature for a specific orchestral or band instrument. May be repeated.

Flute	Percussion
Oboe	Violin
Clarinet	Viola
Saxophone	Cello
Bassoon	Double Bass
Horn	Harp
Trumpet	Guitar
Trombone	Electric Bass
Tuba	

**MUS 360 Major Repertoire (1)**

*Prerequisites:* music major, audition, and departmental permission. Advanced literature associated with the study of MUS 303, MUS 313, MUS 323, MUS 343, or MUS 353 as required for the Bachelor of Music. May be repeated.

**Ensemble Series (MUS 371-390)**

Requirement for all music majors and minors. Each course in the series may be repeated under advisement. Open to non-music majors. Extra fee required.

**MUS 371 Orchestra (1) [GE]**

*Prerequisite:* audition. Major orchestral ensemble for qualified musicians. May be repeated.

**MUS 372 Wind Ensemble (1) [GE]**

*Prerequisite:* Audition. Major performance ensemble for woodwind, brass, and percussion players. Rehearsal and performance of a broad range of wind and percussion repertoire. Open to all students by audition.

**MUS 373 Chamber Singers (1) [GE]**

*Prerequisite:* audition. Sacred and secular music for vocal chamber ensemble. Open to all students by audition. May be repeated.

**MUS 375 Women's Chorus (1) [GE]**

*Prerequisite:* audition. Preparation and performance of repertoire for treble voices. May be repeated for a total of 8 units.

**MUS 376 Opera Workshop (1)**

*Prerequisite:* audition. Preparation and performance of opera scenes or opera production. May be repeated for credit.

**MUS 377 Instrumental Ensembles (1)**

*Prerequisite:* audition. Ensemble to be specified in Class Schedule. Preparation and performance of literature for specific woodwind, brass, percussion, or string ensembles. May be repeated.

**MUS 378 Chamber Music (1)**

*Prerequisite:* audition. Preparation and performance of chamber music literature by advanced students in small ensembles. May be repeated.

**MUS 379 University Chorus (1) [GE]**

*Prerequisite:* audition. Sacred and secular music for large chorus, including masterworks with orchestra. Sight-reading instruction as needed for 2 units of credit. Open to all students by audition. May be repeated.

**MUS 381 Men's Chorus (1)**

*Prerequisite:* placement audition. Preparation and performance of repertoire for tenor, baritone and bass voices. May be repeated for a total of 8 units.

**MUS 382 Keyboard Harmony (1)**

*Prerequisites:* MUS 232 and MUS 303 or equivalent. Intensive one-semester accelerated course in applied figured-bass realization, open-score reading, and transposition for piano majors. Laboratory.

**MUS 383 Piano Accompaniment (1)**

*Prerequisite:* audition. Development of accompaniment skills through preparation and performance of selected vocal and instrumental literature. May be repeated once.

**MUS 384 Piano Ensemble (1)**

*Prerequisite:* audition. Preparation and performance of selected works for two pianos and one piano/four hands. May be repeated.

**MUS 385 Applied Accompanying (1)**

*Prerequisites:* MUS 383 or consent of instructor. Practical experience in applied piano accompaniment to be attained by assignment, based on experience and level of ability, to individual studio lessons in the vocal and instrumental area or to various ensembles in music. May be repeated for a total of 6 units. MUS 386 World Music Ensembles (1)

*Prerequisite:* audition performance on an instrument or voice. Two to eight piece interactive performance groups drawing musical traditions: Africa, Middle East, India, Asia, Europe, Americas. Intercultural practice is encouraged. (May be repeated for 12 units for degree credit as topics vary.)

**MUS 388 Jazz Combos (1)**

*Prerequisite:* audition. Two- to eight-piece interactive performance groups in a variety of styles, including Blues-R&B, Swing, Bop and Straight-ahead, model-free, Rock Fusion, Gospel, Afro-Cuban, Creative World, and Vocal. May be repeated for a total of 12 units.

**MUS 390 Jazz Band (1)**

*Prerequisites:* audition; MUS 430 and MUS 440 or consent of instructor. Eighteen to twenty piece group consisting of saxophone, trumpet, trombone, and rhythm sections; arrangement realization and improvisation in all styles. May be repeated.

**MUS 391 Piano Sightreading (1)**

*Prerequisite:* piano major or audition. Broad and systematic approach to the skills needed to sightread at a reasonable speed. May be repeated for a total of 2 units.

**MUS 392 Piano Performance Practicum (1)**

*Prerequisite:* piano performance major or audition. Performance in the classroom setting. Technical problems and performance practice of standard concert repertoire. May be repeated.

**MUS 394 Vocal Performance Practicum (0)**

*Prerequisite:* vocal performance major. Must be taken concurrently with MUS 313, 360, 776 and/or 780. Performance in the classroom setting. Technical problems and performance practice of standard vocal repertoire. May be repeated.

**MUS 396 Chamber Music Forum (1)**

*Concurrent enrollment in chamber music or consent of instructor.* Performance in the classroom setting. Technical problems and performance practice of chamber music repertoire. May be repeated.

**MUS 405 Tonal Counterpoint (3)**

*Prerequisite:* MUS 233. Contrapuntal practices of the 18th century through written exercises in two- and three-parts based on analysis of examples from the literature.

**MUS 415 Orchestration (3)**

*Prerequisites:* MUS 233. Characteristics of modern orchestral instruments and the orchestration styles and techniques of the 18th, 19th, and 20th centuries. Representative scores from the literature and assignments in scoring for various instrumental ensembles.

**MUS 416 Theory Seminar (3)**

*Prerequisite:* MUS 420. Topic to be specified in Class Schedule. May be repeated when topics vary.

**MUS 420 20th Century Techniques (3)**

*Prerequisite:* MUS 233. Compositional procedures and musical structures of the 20th century through studies of the literature and composition.

**MUS 425 Composition Workshop (1)**

*Prerequisites:* MUS 420 (may be taken concurrently) and consent of instructor. Free compositional work under supervision of instructor. Preparation of works for performance at a student recital. Analytical presentations of original works. May be repeated for a total of 5 units; only 1 unit counts in the major.

**MUS 430 Improvisation (1)**

*Prerequisite:* MUS 203 or MUS 206 and MUS 233 with a grade of C or better. Emphasis on integrating music fundamentals across styles and interdisciplinary practices. May be repeated for a total of 2 units.

**MUS 431 Jazz Improvisation I (2)**

*Prerequisite:* MUS 270 with a grade of C or better. Study and application of jazz improvisation concepts utilizing extended harmonic approaches, quartalism, linear chromaticism, and advanced cross-rhythm sensibility. Structures used are primarily the blues and standard tunes. May be repeated for a total of 4 units.

**MUS 432 Jazz Improvisation II (2)**

*Prerequisite:* MUS 431. Review and application of jazz improvisation concepts utilizing extended harmonic approaches, quartalism, linear chromaticism, and advanced cross-rhythm sensibility. Structures used are modern jazz standards. May be repeated for a total of 4 units.

**MUS 433 Introduction to Music Technology (2)**

*Prerequisites:* familiarity with computers; ability to read music in two clefs; and consent of instructor. Enrollment priority given to music majors. Basic MIDI protocol; synthesizer programming, sequencing, digital editing, and notation.

**MUS 436 Introduction to the Electronic Music Studio (2)**

*Prerequisite:* MUS 504 or equivalent preparation. Operation of digital electronic music equipment, including use of computers in controlling electronic musical instruments.

**MUS 438 Fundamentals of Computer Music (2)**

*Prerequisites:* MUS 436 and MUS 504 or equivalent preparation. Theories and issues in software-based digital audio signal analysis, processing, and synthesis. Software synthesis and control techniques in creating original musical compositions.

**MUS 440 Jazz Harmony (3)**

*Prerequisites:* MUS 203 or 206 and MUS 233 with a grade of C or better. Notation and realization of harmony in jazz music. Standard chord progressions and lead sheet symbols.

**MUS 441 Jazz Composition and Arranging (3)**

*Prerequisite:* MUS 440. Major jazz compositional practices, including review and application of form, harmonic and linear progression as developed through jazz masterworks of the 20th century. Composers' scores and transcribed improvisations, as well as student works.

**MUS 450 Projects in Theory and Composition (1)**

*Prerequisites:* MUS 420 and MUS 425; music major; junior standing or consent of instructor. Must be taken concurrently with MUS 460. Supervised study of composition and theoretical problems and preparation of works for performance. May be repeated for a total of 4 units.

**MUS 460 Repertoire for Composers (1)**

*Prerequisites:* music major; MUS 420; junior standing or consent of instructor. Must be taken concurrently with MUS 425 and MUS 450. Literature associated with the study of MUS 450 as required for the Bachelor of Music. May be repeated for a total of 4 units.

**MUS 477 Career Management in Music (3)**

*Prerequisite:* music major in upper division standing. Development of professional skills; i.e. networking, interviewing; crafting bios, cover letters, concert programs, and press releases; understanding today's job market. Paired with MUS 777. Students who have completed MUS 777 may not take MUS 477 for credit.

**MUS 501 Music, The Listener's Art (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Music literature in historical/cultural contexts. Skills and techniques of analytical listening and the reading of simple scores.

**MUS 502 The Opera (3)**

*Prerequisite:* upper division standing or consent of instructor. Synthesis of drama, music, scenery, costume, and dance in opera. Development of the genre in Italy, France, England, and Germany showing how it differed from one country to the next due to linguistic and theatrical traditions.

**MUS 504 Survey of Electronic Music (3)**

*Prerequisite:* upper division standing. Materials and methodology of electronic music as a contemporary art form. Literature of electronic music and related theoretical issues drawn from the fields of physics, acoustics, psychoacoustics, and digital audio, including the MIDI communication protocol.

**MUS 505 Music of the World's Peoples (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Non-Western music and arts, studied within their socio-cultural context. Autochthonous, folk, and classical music in societal context as art forms. Lecture, discussion, and guided listening, enhanced by selected audio-visual presentations and readings.

**MUS 506 Survey of Jazz (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Jazz from early ragtime to the present. Musical-social-economic history of jazz and its interaction with classical and rock musics.

**MUS 508 Modern Music: American Iconoclasts (3) [GE]**

*Prerequisites:* upper division standing and completion of JEPET or ENG 414. Selected iconoclastic 20th century American composers including Charles Ives, Harry Partch, John Cage, and Philip Glass. Innovations, social and artistic context, uniquely American qualities. Stylistic analysis of representative works.

**MUS 510 Keyboard Literature (3)**

*Prerequisite:* upper division standing or consent of instructor. Music from 16th to 20th centuries viewed through a survey of piano, harpsichord, and organ literature. Required for majors in piano but open to other qualified students.

**MUS 511 The Roots of Rock (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Popular music as a reflection of American culture; folk and ethnic roots, regionalism, commercialism; influence of technology; country, rhythm and blues, rock. Topics include general aspects of early rock development or focus on a particular early rock group or performer. MUS 511 may be repeated for a total of 6 units as topics vary. Topic to be specified in Class Schedule.

**MUS 512 Rock Since the Mid-1960s (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. An examination of developments in Rock from the mid-1960s to the early 1980s: significant styles, social impact of styles, and the influence of electronic technology, with an emphasis on mid-60s to early 70s styles as being foundational. Lectures, readings, and recordings are used to familiarize students with the history and stylistic development of rock music.

**MUS 520 Seminar in Music Literature (3)**

*Prerequisite:* completion of JEPET or ENG 414. Topic to be specified in Class Schedule. May be repeated when topics vary.

**MUS 530 Musics of the Middle East and India (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Musical cultures of Iran, Turkey, and the Arab world, including North Africa, Central Asia, and Indian sub-continent. Traditional instruments, concepts, and contexts of music making. Students may substitute this course for MUS 520 as preparation for MUS 598.

**MUS 531 Musics of North and Southeast Asia (3)**

*Prerequisite:* upper division standing or consent of instructor. Musical cultures of Japan, Korea, China, Philippines, Vietnam, Cambodia, Thailand, Burma, Malaysia, Indonesia, as well as Australia and Pacific Oceania. Traditional instruments, concepts, and contexts of music making. Students may substitute this course for MUS 520 as preparation for MUS 598.

**MUS 542 Ethnomusicology - GVAR (3)**

*Prerequisites:* Music majors only; ENG 214 or equivalent with grade of C or better; upper division standing. Research and extensive writing and revision skills developed and applied in ethnomusicology to the study of selected musical cultures. History, theory and methodology, fieldwork, transcription, and cross-cultural analysis. (Cross listed with ANTH 542. May not be repeated under alternate prefix.) ABC/NC grading only.

**MUS 545 Traditional Kulintang Music and Dance of the Southern Philippines (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ETHS/DANC 545. For course description, see ETHS 545. May be repeated once. (May not be repeated under alternate prefix.)

**MUS 550 Music from the Middle Ages to 1750 (3)**

*Prerequisites:* MUS 233 and completion of JEPET or ENG 414. From Gregorian Chant through the death of Bach. Music of the Medieval, Renaissance, and Baroque eras involving stylistic and formal analysis. Examples from literature are related to performance practices of each period. Intended for music majors and minors.

**MUS 551 Classic and Romantic Music (3)**

*Prerequisites:* MUS 233 and completion of JEPET or ENG 414. Classical and Romantic periods through the beginning of the 20th century. Historical performance techniques.

**MUS 552 20th Century Music (3)**

*Prerequisites:* MUS 233, MUS 551, and completion of JEPET or ENG 414. Evolution of the major trends of musical thought from the late 19th century to the present. Stylistic and formal analysis of representative music literature. Intended for music majors and minors.

**MUS 558 Seminar in Jazz History (3)**

*Prerequisite:* MUS 506. Topic to be specified in Class Schedule. May be repeated for a total of 12 units as topics vary.

**MUS 560 Lyric Diction I (2)**

*Prerequisite:* upper division standing or consent of instructor. A systematic study of Italian, Latin, and Spanish signing pronunciation using the International Phonetic Alphabet. Intended for voice majors and music educators.

**MUS 561 Lyric Diction II (2)**

*Prerequisite:* MUS 560 or consent of instructor. A systematic study of German and French singing pronunciation using the International Phonetic Alphabet. Intended for voice majors and music educators.

**MUS 565 Vocal Literature (3)**

*Prerequisite:* MUS 550, MUS 551, or MUS 552. Vocal literature from the 16th century to the present. History, style, and performance practices. Required for majors in voice, but open to other qualified students.

**MUS 598 Senior Thesis (3)**

*Prerequisites:* MUS 520 and completion of JEPET or ENG 414. Development and completion of the senior thesis and, as appropriate, public presentation of the results of that creative work. Bibliographical and stylistic techniques requisite to the organization and presentation of research projects.

**MUS 601 Music for Children (3)**

*Prerequisite:* upper division standing or consent of instructor. Musical materials, concepts, and skills appropriate for use in elementary classrooms. Music fundamentals applied through development of basic skills on an instrument: guitar, recorder, or piano.

**MUS 608 Early Field Experience in Music Education (2)**

*Prerequisite:* upper division standing. Provides 45 hours of observation and participation in school music classes at elementary, middle, and high schools. Classwork, 1 unit; fieldwork, 1 unit.

**MUS 610 General Music (3)**

*Prerequisite:* upper division standing. Materials and methods for teaching music in general music classes.

**MUS 612 The Voice (3)**

*Prerequisite:* upper division standing or consent of instructor. Physiological and psychological mechanics of singing. Techniques of vocal instruction and comparative methods of developing vocal techniques and repertoire. Intended for music majors and minors.

**MUS 614 Piano Pedagogy (2)**

*Prerequisite:* piano major or audition. Problems in teaching piano: elements of technique, theory and sight-reading, performance and analysis of teaching materials, class procedures and methods.

**MUS 616 Woodwinds (2)**

*Prerequisite:* departmental permission. Individual and class instruction involving techniques and performance problems of flute, clarinet, oboe, bassoon, and saxophone. Laboratory.

**MUS 618 Strings (2)**

*Prerequisite:* departmental permission. Individual and class instruction involving techniques and performance problems of violin, viola, violoncello, and string bass. Laboratory.

**MUS 620 Brass Instruments (2)**

*Prerequisite:* departmental permission. Individual and class instruction involving techniques and performance problems of horn, trumpet, trombone, baritone, and tuba. Laboratory.

**MUS 640 Ensemble Conducting (2)**

*Prerequisite:* MUS 232 or equivalent. Fundamentals of conducting and score-reading; standard patterns, stick technique and conducting gestures used with choral and instrumental ensembles.

**MUS 644 Advanced Instrumental Conducting and Literature (3)**

*Prerequisite:* MUS 415, 640, and upper division standing. Elements of conducting with instrumental laboratory experience; director's responsibility and rehearsal methods; selection of literature for wind, string, percussion ensembles in K-12 schools. (Formerly MUS 630.)

**MUS 645 Advanced Choral Conducting and Literature (3)**

*Prerequisites:* MUS 640 and upper division standing. Elements of conducting with choral laboratory experience; director's responsibility and rehearsal methods; selection of literature for children's voices, adolescent voices, men's and women's choirs.

**MUS 699 Special Studies in Music (1-3)**

*Prerequisites:* upper division standing, consent of the instructor, and approval of the student's adviser. Independent study, under supervision of a staff member selected by the student, of some aspect of the field not covered by regular courses. May be repeated with consent of instructor, the adviser, and the department chair. No more than 3 units can be taken during any one semester.

**Graduate Courses****MUS 700 Introduction to Graduate Study (3)**

*Pre- or corequisite to other graduate seminars. Priority given to music majors.* Use and evaluation of major bibliographic materials, including primary and secondary sources; techniques of research through development of individual projects.

**MUS 701 Graduate Seminar in Music (3)**

*Prerequisite:* graduate status. Topic to be specified in Class Schedule. May be repeated when topics vary.

**MUS 710 Advanced Analysis (3)**

*Prerequisite:* MUS 700 and completion of all theory remediation. Must be taken within the first 2 semesters of study. Graduate level music students only. Seminar on analytical techniques and their application to in-depth study of major works from the literature of the 17th, 18th, 19th, and 20th centuries.

**MUS 716 Graduate Theory Seminar (3)**

*Prerequisite:* MUS 710 or consent of instructor. Restricted to graduate level music students. Seminar on analytical techniques and their application to in-depth study of major works written after 1950. May be repeated when topics vary.

**MUS 720 Directed Projects in Theory or Composition (1)**

*Must be taken concurrently with MUS 725.* Directed individual studies with faculty supervision in composition or theory. May be repeated for a total of 4 units.

**MUS 725 Practicum in Composition (1)**

*Must be taken concurrently with MUS 720 and MUS 730.* Directed individual studies with faculty supervision in advanced orchestration; 20th century styles and practices; problems in scoring and analysis. May be repeated for a total of 4 units.

**MUS 730 Composition Workshop (0)**

*Prerequisite:* graduate status in music. *Must be taken concurrently with MUS 720 and MUS 725.* Analytical presentations of original works, analysis of new compositions, and participation in critical discussion of presentations. Required each semester of matriculating graduate music composition majors. CR/NC grading only.

**History Series**

Graduate seminars involving detailed historical and analytical study of the works of a single composer, style, or special repertoire from the period indicated.

**MUS 751 The Renaissance (3)**

*Prerequisite:* MUS 550.

**MUS 752 The Baroque (3)**

*Prerequisite:* MUS 700 and either successful completion of the appropriate portion of the graduate classification exam in music history, or MUS 550.

**MUS 753 The Classical Era (3)**

*Prerequisite:* MUS 700, and either successful completion of the appropriate portion of the graduate classification exam in music history or MUS 551.

**MUS 754 The Romantic Era (3)**

*Prerequisite:* MUS 700, and either successful completion of the appropriate portion of the graduate classification exam in music history or MUS 551.

**MUS 755 The Twentieth Century (3)**

*Prerequisite:* MUS 700, and either successful completion of the appropriate portion of the graduate classification exam in music history or MUS 552.

**MUS 760 Curriculum and Instruction I: Music (3)**

*Prerequisite:* subject matter waiver for music education or graduate status. *Must be taken concurrently with S ED 660/S ED 760, Student Teaching.* Principles and practices of curriculum planning and instruction in music for students in grades K-12.

**MUS 761 Curriculum and Instruction II: Music (3)**

*Prerequisite:* subject matter waiver for music education or graduate status. *Must be taken concurrently with S ED 660/S ED 760.* Principles and practices of curriculum planning and instruction in music for students in grades K-12.

**MUS 776 Directed Projects in Performance (2)**

*Prerequisites:* departmental and supervising faculty permission. For music majors only. Graduate individual projects in performance and literature for piano, voice, orchestral and band instruments. May be repeated for a total of 6 units.

**Graduate Piano Major****Graduate Voice Major****Graduate Instrumental Major--Instruments:**

Bassoon	Harp	Trombone
Cello	Horn	Trumpet
Clarinet	Oboe	Tuba
Double Bass	Percussion	Viola
Flute	Saxophone	Violin
Guitar		

**MUS 777 Career Management in Music (3)**

*Prerequisite:* departmental permission. For description, see MUS 477. Paired with MUS 477. Students who have completed MUS 477 may not take MUS 777 for credit.

**MUS 778 Chamber Music Performance (1)**

*Prerequisite:* audition required. Open to graduate performance majors. Preparation and performance of major works of chamber music literature. May be repeated.

**MUS 780 Graduate Major Repertoire (2)**

*Prerequisite:* departmental permission. Solo literature required of master's candidates. May be repeated.

**MUS 781 Choral Conducting (2)**

*Prerequisite:* departmental permission. Directed individual projects in choral conducting. Evaluation and selection of appropriate choral literature. Rehearsal techniques. May be repeated for a maximum of six units.

**MUS 782 Instrumental Conducting (2)**

*Prerequisite:* departmental permission. Directed individual projects in instrumental conducting. Evaluation and selection of appropriate band and orchestral literature. Rehearsal techniques. May be repeated for a maximum of six units.

**MUS 852 Directed Experiences in Music (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising instructor. For music majors only. Directed research, observation, or experience in a specific area of graduate concentration. May be repeated for a total of 6 units.

**MUS 894 Creative Work Project (3)**

*Prerequisites:* advancement to candidacy and recommendation of supervising faculty. Recital or creative project presented by the student under faculty supervision as a culmination of study for the Master of Music in Performance or Master of Arts in Music. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**MUS 898 Mtaster's Thesis (3)**

*Prerequisites:* advancement to candidacy and recommendation of supervising faculty. Research, creative project, or recital presented by the student under faculty supervision as a culmination of study for the Master of Music or Master of Arts in Music. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**MUS 899 Special Study (2)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member. Study is planned, developed, and completed under the direction of a member of the departmental faculty. Enrollment by petition. May be repeated.

**NURSING****Undergraduate Courses****NURS 300 Bridge to SFSU Advanced Placement - GWAR (3)**

*Prerequisite:* admission to APO RN program and ENG 214 with grade of C or better. Conceptual framework of nursing. Professional behaviors, leadership/management roles, health care systems, health promotion and teaching/learning theories, the nursing process, communication skills, and strategies for health assessment. Gerontological nursing and family assessment theory. ABC/NC grading only.

**NURS 301 Assessment of Prior Theoretical Learning in Nursing (3)**

*Prerequisites:* registered nurse licensure; APO program only. Evaluation and assessment of theoretical learning that has occurred as a result of prior off-campus experience relevant to the curriculum of the School of Nursing.

**NURS 302 Assessment of Prior Clinical Theoretical Learning in Nursing (6)**

*Prerequisites:* registered nurse licensure; successful completion of NURS 301; APO program only. Advanced placement credit to the APO program student for prior clinical experience in nursing. CR/NC grading only.

**NURS 311 Health Assessment (3)**

*Prerequisites:* admission to nursing major and upper division standing. Must be taken concurrently with all Semester 1 Nursing courses. Strategies to obtain health history and physical assessment data for diverse populations across the life span. Health risk prevention and promotion of health behaviors. Communication, observation, inspection, palpation, percussion, and auscultation as assessment methods. Extra fee required. (Formerly NURS 114.)

**NURS 312 Foundations in Nursing Theory - GWAR (3)**

*Prerequisites:* admission to nursing major and ENG 214 with grade of C or better; concurrent enrollment with all first level nursing courses; only open to Nursing majors. Introduction to professional nursing, focusing on challenges influencing nursing education, nursing practice and healthcare. ABC/NC grading only. May be repeated for 3 units for degree credit. (Formerly NURS 111)

**NURS 313 Foundations in Nursing Practicum (2)**

*Prerequisite:* admission to nursing major; upper division standing. Must be taken concurrently with all Semester 1 nursing courses. Concepts, theories, and clinical skills fundamental to the practice of nursing. Students utilize the nursing process to plan and provide for the cultural, physiological, social, psychological, and spiritual needs of patients with chronic health problems. (Formerly NURS 113.)

**NURS 314 Nursing Interventions Practicum (2)**

*Prerequisite:* admission to nursing major and upper division standing. Must be taken concurrently with all Semester 1 nursing courses. Theories and principles from nursing, health assessment, and related sciences applied to fundamental and complex nursing skills, and nursing process. Laboratory includes demonstration, practice, and return demonstration. Extra fee required. (Formerly NURS 115, 116, 224.)

**NURS 315 Pharmacology (3)**

*Prerequisites:* admission to nursing major and upper division standing. Must be taken concurrently with all Semester 1 Nursing courses. Principles of drug therapy across the lifespan with a focus on professional nursing responsibilities, including patient/family teaching. Drugs used in major disease classifications; common drug interactions. (Formerly NURS 225.)

**NURS 316 Health Assessment Skills Laboratory (1)**

*Prerequisite:* admission to nursing major. Must be taken concurrently with all Semester 1 nursing courses. Health assessment across age span. Procedures including health interviewing, history taking, basic techniques of physical examination. Focus on identification and recording of findings in particular body systems. Psychosocial, cultural variables are incorporated. Laboratory.

**NURS 321 Pathophysiology (3)**

*Prerequisites:* completion of all Semester 1 nursing courses. Must be taken concurrently with all Semester 2 Nursing courses. Assessment of pathophysiological changes in the chronic and acutely ill patient across the lifespan using a systems and intersystem approach. (Formerly NURS 333.)

**NURS 322 Medical-Surgical Nursing Theory (3)**

*Prerequisites:* all Semester 1 Nursing courses. Must be taken concurrently with all Semester 2 Nursing courses. Medical-surgical nursing theory, concepts, and principles relevant to nursing care of acute and chronically ill adults using a systems approach. Application of the nursing process to optimize patient outcomes. (Formerly NURS 222.)

**NURS 323 Medical Surgical Nursing Practicum (3)**

*Prerequisites:* all Semester 1 Nursing courses. Must be taken concurrently with all Semester 2 Nursing courses. Clinical application of theoretical knowledge and technical skills in providing medical-surgical nursing care to acute and chronically ill adults. (Formerly NURS 223.)

**NURS 324 Geriatric Nursing Theory (3)**

*Prerequisites:* all Semester 1 Nursing courses. Must be taken concurrently with all Semester 2 Nursing courses. Biopsychosocial concepts and geriatric nursing theory. Physical, psychological, and cognitive changes and their impact on social function from a health and illness perspective using a systems framework. Vulnerabilities, health risks, and selected nursing interventions. (Formerly NURS 112.)

**NURS 334 Maternity Nursing Theory (3)**

*Prerequisites:* all Semester 2 Nursing courses. Must be taken concurrently with all Semester 3 Nursing courses. Maternity nursing theory, concepts and principles relevant to the nursing care of pregnant and postpartum women using a systems approach. Application of the nursing process to optimize patient and family outcomes.

**NURS 335 Maternity Nursing Practicum (3)**

*Prerequisites:* all level 2 Nursing courses. Must be taken concurrently with all level 3 Nursing courses. Application of theoretical knowledge and technical skills in providing care to pregnant women, newborn infants and other family members in an acute care setting. Practicum.

**NURS 336 Pediatric Nursing Theory (3)**

*Prerequisites:* all Semester 2 Nursing courses. Must be taken concurrently with all Semester 3 Nursing courses. Pediatric nursing theory, family theory, concepts, and principles relevant to the nursing care of children using a systems approach. Application of the nursing process to optimize patient and family outcomes.

**NURS 337 Pediatric Nursing Practicum (3)**

*Prerequisites:* all level 2 Nursing courses. Must be taken concurrently with all level 3 Nursing courses. Application of theoretical knowledge and technical skills in providing care to acutely and chronically ill children in an acute care setting. Practicum.

**NURS 338 Nursing Research (3)**

*Prerequisites:* all Semester 2 Nursing courses. Must be taken concurrently with all Semester 3 Nursing courses. Principles of research theory, methodology, and critique. Understanding of the research process and its application in nursing. Role of the nurse as consumer of scientific research as applied to practice. (Formerly NURS 555.)

**NURS 444 Psychiatric Mental Health Nursing Theory (3)**

*Prerequisites:* all Semester 3 Nursing courses. Must be taken concurrently with NURS 445, 446, 447. Theories and principles of psychiatric nursing, as well as foundations of behavior, communication, and psychopharmacology, are emphasized. Acute and chronic mental health/illness, rehabilitation and promotion of healthy adaptation of patients and families will be explored in a variety of clinical settings.

**NURS 445 Psychiatric Mental Health Nursing Clinical Practicum (3)**

*Prerequisites:* all Semester 3 Nursing courses. Must be taken concurrently with NURS 445, 446, 447. Clinical nursing practice in acute and community settings that provide mental health services for patients who may experience psychological stress, neurobiological disorders, and high risk situations. [CSL may be available; consult index for page reference.]

**NURS 446 Community Public Health Nursing Theory (3)**

*Prerequisites:* all Semester 3 Nursing courses. Must be taken concurrently with NURS 445, 446, 447. Foundation for community public health nursing care of patients, families, and communities. Sociocultural, political, and economic influences on a community's health and the health care system are explored. Current issues and trends affecting community public health. [CSL may be available; consult index for page reference.]

**NURS 447 Community Public Health Nursing Practicum (3)**

*Prerequisites:* all Semester 3 Nursing courses. Must be taken concurrently with NURS 445, 446, 447. The application of nursing and epidemiological concepts to promoting health and preventing disease among patients, families, and communities. Intervention strategies focus on empowering clients with the necessary knowledge and skills to make informed and healthful choices. [CSL may be available; consult index for page reference.]

**NURS 500 Death and Dying in Contemporary Society (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Attitudes, beliefs, practices, grief responses, and bio-ethical issues of dying and death which confront the individual and society. Ways to cope and help oneself and others to enhance life and maturity. (Cross listed with GRN 510. May not be repeated under alternate prefix.)

**NURS 501 Principles of Pharmacology (2-3)**

*Prerequisites:* enrollment in nurse practitioner courses. Knowledge of basic pharmacology, drug classifications, and therapeutic dosage related to major disease classifications. Responsibilities of the nurse for furnishing authority in the State of California and in the promotion of the rational use of medications.

**NURS 556 Nursing Leadership Theory (3)**

*Prerequisites:* all Semester 4 Nursing courses. Must be taken concurrently with all Semester 5 Nursing courses. Leadership/management theories and professional trends concerning nursing practice, education, informatics and health care finance, ethics, law and politics. Development of critical thinking, change agent and delegation skills.

**NURS 557 Capstone Practicum (3)**

*Prerequisites:* all Semester 4 Nursing courses. Must be taken concurrently with all Semester 5 Nursing courses. Promotes independence in the synthesis and practice of biophysical and psychosocial nursing care to specific client groups across the life span. Leadership and management concepts are applied within a variety of settings. Advanced biophysical and psychosocial aspects of care for the patient and family are emphasized. Students aid in coordination of interdepartmental systems to insure continuity of care within both the acute and community settings.

**NURS 558 Professional Practice Concepts Theory (3)**

*Prerequisites:* registered nurse licensure; concurrent enrollment with NURS 559; APO program only. Opportunity to explore leadership and management concepts in nursing practice. Examination of organizational structure and aspects of leadership central to the clinical staff role.

**NURS 559 Professional Practice Concepts Practicum (3)**

*Prerequisites:* registered nurse licensure; concurrent enrollment with NURS 558; APO program only. Practicum experience to gain competency in clinical patient management through the application of leadership and management principles; exploration of nurse manager roles and responsibilities in a clinical setting. CR/NC grading only.

**NURS 680 International Perspectives in Nursing and Health (1-3)**

*Prerequisite:* consent of instructor. Comparison of nursing and health care systems and settings in

**NURS 699 Special Problems In Nursing (1-3)**

An intensive study of a particular problem in nursing under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open to regularly enrolled students only. May be repeated for credit.

*Graduate Courses***NURS 700 The Theoretical Basis of Nursing (3)**

*Prerequisite:* classified status in M.S.N. program. Analysis and evaluation of conceptual models/theories in nursing and prototype theories from other disciplines as a basis for advanced practice and research in nursing management/administration, staff development/client education, and case management/long term care.

**NURS 706 Health Care Policy and Nursing Issues (3)**

*Prerequisite:* classified status in M.S.N. program. Concepts and theories of public policy-making and relevant political systems in the context of health care delivery in the U.S. Major health care and nursing issues. Effective strategies for influencing health care policy.

**NURS 708 Diagnosis and Management in Primary Care (4)**

*Prerequisites:* classified status in M.S.N. program; NURS 700 and NURS 701. Diagnosis and management of common illnesses in primary care. Research/theory used to promote health and minimize effects of illness.

**NURS 711 Advanced Physical Assessment and Health Promotion/Maintenance (2)**

*Prerequisite:* admission to FNP program. Physical assessment skill acquisition with expected normal observations. Direct and indirect observation skills and use of physical assessment equipment for advanced practice examinations. Health promotion and maintenance principles and reduction of risk factors across the life span. Classwork, 1 unit; laboratory, 1 unit.

**NURS 715 Principles of Pharmacology (3)**

*Prerequisites:* Graduate standing in Nursing. Responsibilities of the nurse for furnishing authority in the State of California and in the promotion of the rational use of medications.

**NURS 720 Epidemiology and Biostatistics in Community Health Nursing (3)**

*Prerequisites:* course in inferential statistics and graduate status in Nursing. Epidemiology and interrelationship with biostatistics. Understanding the complex factors involved in the distribution of health and disease in the population. Application of concepts to specific vulnerable populations across the life span.

**NURS 721 Building Partnerships in the Community (3)**

*Prerequisites:* NURS 700 and 701; must be taken concurrently with NURS 707 and 801. Collaboration in nursing and the community health team and team partnerships with the diverse community. Developing effective nursing and team strategies to foster community empowerment and wellness. [CSL may be available; consult index for page reference.]

**NURS 730 Advanced Nursing Physiology and Pathophysiology (2)**

*Prerequisite:* advancement to graduate status in School of Nursing. Must be taken concurrently with NURS 731. Physiologic processes with clinical application to individuals across the lifespan. Advanced physiology and compensatory mechanisms.

**NURS 731 Advanced Nursing Physiology and Pathophysiology Seminar (2)**

*Prerequisite:* graduate status in the School of Nursing. Must be taken concurrently with NURS 730. Pathophysiologic changes that commonly occur in neonatal/pediatric, critically ill adult, women's health, and geriatric populations. Etiology and progression of specific alterations, monitoring and management implications.

**NURS 732 Ethics in Advanced Nursing Role Development (3)**

*Prerequisite:* classified graduate status in M.S.N. program. Case/problem-based approach to ethics and ethical decision-making within the discipline of nursing. Exploration of ethical decision-making models and theoretical perspectives as related to contemporary clinical issues for the advanced practice nurse.

**NURS 733 Advanced Nursing Role Development (2)**

*Prerequisites:* NURS 700 and 706. Must be taken concurrently with NURS 734. Nursing practice roles in health-care systems. Historic and developmental aspects, competencies, roles, and issues.

**NURS 734 Advanced Nursing Role Application (2)**

*Prerequisites:* NURS 700 and 706. Must be taken concurrently with NURS 733. Application of the advanced practice-nursing role to a specialty area with focus on a specific nursing role, patient population, and/or setting for application of knowledge and skills to issues in clinical practice. Nursing majors only.

**NURS 794 Seminar in Research (3)**

*Prerequisite:* consent of graduate adviser. Research methodology, techniques, and designs appropriate to health and human services research problems including critique and interpretation of reports; application of research to a variety of settings. (Cross listed with CFS 794. May not be repeated under alternate prefix.)

**NURS 800 Advanced Clinical Practicum (2-4)**

*Prerequisite:* consent of instructor. Development of clinical reasoning skills, organizing, rationalizing, synthesizing, and verifying data to formulate appropriate clinical diagnosis and management decisions. Nursing majors only.

**NURS 801 Graduate Nursing Practicum I (4)**

*Prerequisite:* classified status in M.S.N. program; concurrent enrollment in NURS 702, NURS 703, NURS 707, or NURS 708. Theory, models, and role characteristics in entrepreneurial leadership, education, case management, public health and community nursing, or as family nurse practitioners. Teaching evaluation or information processing in dyads and groups. Observation and participation in clinical settings.

**NURS 802 Graduate Nursing Practicum II (4)**

*Prerequisites:* classified status in M.S.N. program; NURS 702, NURS 703, NURS 707, or NURS 708, and NURS 801. Theory, models, and role characteristics in entrepreneurial leadership, education, case management, public health and community nursing, or as family nurse practitioners in nursing preceptorships to support role development.

**NURS 803 Graduate Nursing Practicum III (4)**

*Prerequisites:* NURS 709 and NURS 802. Theories, models, and role characteristics in case management in primary care; develop leadership role as a family nurse practitioner. CR/NC grading only.

**NURS 804 Professional Issues and Nurse Practitioner Skills (2)**

*Prerequisite:* NURS 802. Must be taken concurrently with NURS 803. Acquisition and development of a collaborative professional practice. Theory, principles, and procedures for invasive diagnostic and treatment procedures. Decision making and interpretation of selected laboratory and radiographic diagnostic procedures. Classwork, 1 unit; laboratory, 1 unit.

**NURS 895 Field Study in Nursing (3)**

*Prerequisites:* advancement to candidacy and approval of adviser, department chair, and committee. Student designs, implements, and evaluates a project. Graduate Approved Program and Proposal for Culminating Experience forms must be approved by the Graduate Division before registration.

**NURS 897 Research in Nursing (1-3)**

*Prerequisites:* Graduate Approved Program (GAP) on file and departmental approval. Study, discussion, and evaluation of topics germane to nursing. May not be used to satisfy M.S.N. minimum requirement for GAP. May be repeated with departmental approval. CR/NC grading only.

**NURS 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy and approval of adviser, department chair, and committee. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**NURS 899 Special Study In Nursing (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member. An intensive examination, analysis, or synthesis of a problem under the direction of a member of the faculty. Open only to regularly enrolled students. May be repeated.

**OCEANOGRAPHY***Undergraduate Courses***OCN 100 Our Dynamic Ocean (3) [GE]**

*Prerequisite:* not open to students who have completed OCN 104. Investigating components and operating principles of the ocean system, including ocean basin features, currents, nutrient cycling, and climatic influences, emphasizing the process of scientific discovery. Designed for non-science majors. Classwork, 3 units. Plus-minus letter grade, CR/NR allowed, RP.

**OCN 101 Our Dynamic Ocean Lab (1) [GE]**

*Prerequisite:* OCN 100 (may be taken concurrently); not open to students who have completed OCN 104. Investigating ocean processes that play a dominant role in regulating our climate and environment. Emphasizes nature human connections and the process of scientific discovery through hands-on activities. Extra fee required.

**OCN 104 Our Dynamic Ocean Lecture and Lab (4) [GE]**

*Prerequisite:* not open to students who have completed OCN 100 and/or OCN 101. Investigating components and operating principles of the ocean system, including ocean basin features, currents, nutrient cycling, and climatic influences, emphasizing the process of scientific discovery. Designed for non-science majors. Classwork, 3 units; laboratory and fieldwork, 1 unit. Extra fee required.

**OCN 200 Physical Processes in the Ocean (3)**

*Prerequisite:* MATH 109 or equivalent. Observed behaviors of the ocean and the underlying processes and principles that explain and predict them. Algebra-based problem solving. Class-work, 2 units; Laboratory, 1 unit.

**OCN 320 Introduction to Fluid Mechanics for Earth-Environmental Science (4)**

*Prerequisites:* MATH 227 and PHYS 240, or consent of instructor. Introduction to the basic principles of fluid dynamics as applied to the ocean and atmosphere, and related fields in earth science such as surface water flow and groundwater dynamics. (Cross listed with METR 320. May not be repeated under alternate prefix.)

**OCN 405 Planetary Climate Change (4)**

*Prerequisites:* at least 9 units of physical sciences coursework. Cross listed with GEOL/METR 405. For course description, see GEOL 405. (May not be repeated under alternate prefix.)

**OCN 410 Coastal Processes (3)**

*Prerequisite:* MATH 226 and PHYS 111 or PHYS 220; or consent of instructor. Dynamics of the nearshore ocean and interactions with the coast and beaches. Topics include tides, coastal waves and currents, sediment transport and beaches, inner shelf processes, and estuarine dynamics. Paired with OCN 710. Students who have completed OCN 710 may not take OCN 410 for credit. Classwork, 2 units; laboratory and fieldwork, 1 unit. [Formerly GEOL 452. Not open to students who have completed GEOL 452.]

**OCN 420 Physical Oceanography (3)**

*Prerequisites:* OCN 100 or METR/OCN 200; PHYS 220; or consent of instructor. The dynamic character of the ocean environment with emphasis on the properties of sea water, surface heat transfer, Coriolis force, surface and deep ocean circulation, deep and shallow wave phenomena, and underwater sound and optics. Designed for both the physical scientist and marine biologist. (Paired with OCN 720. Students who have completed OCN 720 may not take OCN 420 for credit.) Classwork, 2 units; laboratory, 1 unit.

**OCN 450 Atmosphere-Ocean Interactions (3)**

*Prerequisite:* METR/OCN 201 or METR 410; and METR 420 or OCN 420. Cross listed with METR 450. For course description, see METR 450. (May not be repeated under alternate prefix.)

**OCN 460 Use of Computers in Meteorology and Oceanography (2)**

*Prerequisite:* a college course in meteorology or oceanography. Cross listed with METR 460. For course description, see METR 460. (May not be repeated under alternate prefix.)

**OCN 465 Computer Programming with Applications in Meteorology and Oceanography (3)**

*Prerequisites:* METR/OCN 201 or METR 410; METR/OCN 460 or familiarity with UNIX; and METR 415 (may be concurrent). Cross listed with METR 465. For course description, see METR 465. (May not be repeated under alternate prefix.)

**OCN 470 Meteorological and Oceanic Observing Techniques and Systems (2)**

*Prerequisites:* METR/OCN 201, METR 410 or consent of instructor. Cross listed with METR 470. For course description, see METR 470. Classwork, 1 unit; laboratory and fieldwork, 1 unit. (May not be repeated under alternate prefix.)

**OCN 652 Geoscience Partners in K-12 Education (4)**

*Prerequisite:* completion of at least one upper division course in your major field of study. Cross listed with GEOL/METR 652. For course description, see GEOL 652. (May not be repeated under an alternate prefix.)

**OCN 697 Senior Project (1-3)**

*Prerequisite:* senior standing in oceanography, 3.0 GPA in major course work, and consent of oceanography faculty advisor. Directed, original research on an oceanographic problem. May be repeated for a total of 6 units.

**OCN 699 Special Study (1-3)**

*Prerequisite:* GPA of 3.0 or higher in course work in the major and consent of meteorology or oceanography faculty advisor. Special study of meteorology or oceanography, directed by a member of the meteorology or oceanography faculty. Written report of work required.

**Graduate Courses****OCN 700 Graduate Seminar in Geosciences (2)**

*Prerequisite:* graduate standing. Cross listed with GEOL/METR 700. For course description, see GEOL 700. (May not be repeated under alternate prefix.) Plus-minus letter grade only.

**OCN 701 Research Methods in Geosciences (3)**

*Prerequisite:* GEOL/METR/OCN 700 or consent of instructor. Cross listed with GEOL/METR 701. For course description, see GEOL 701. (May not be repeated under alternate prefix.)

**OCN 702 Quantitative Methods in Geosciences (3)**

*Prerequisites:* Courses in basic statistics, calculus, and computer applications, or consent of instructor. Cross listed with GEOL/METR 702. For course description, see GEOL 702. (May not be repeated under alternate prefix.) Classwork, 2 units; laboratory and fieldwork, 1 unit.

**OCN 710 Coastal Processes (3)**

*Prerequisites:* MATH 226; PHYS 111 or PHYS 220; and graduate or senior standing. Paired with OCN 410. For course description, see OCN 410. Students who have completed OCN 410 may not take OCN 710 for credit. Classwork, 2 units; laboratory and fieldwork, 1 unit. [Formerly GEOL 752. Not open to students who have completed GEOL 752.]

**OCN 720 Physical Oceanography (3)**

*Prerequisites:* graduate or senior standing; OCN 100 or METR/OCN 200; PHYS 220; or consent of instructor. For course description, see OCN 420. (Paired with OCN 420. Students who have completed OCN 420 may not take OCN 720 for credit.) Classwork, 2 units; laboratory and fieldwork, 1 unit.

**OCN 792 Our Dynamic Classroom (1)**

*Prerequisite:* graduate standing or consent of instructor. Cross listed with GEOL/METR 792. For course description, see GEOL 792. (May not be repeated under an alternate prefix.) May be repeated under same prefix for 3 units for degree credit. Plus-minus letter grade only.

**OCN 896 Directed Reading in the Geosciences (3)**

*Prerequisite:* graduate status or consent of adviser. Supervised literature research in a specific area chosen on the basis of individual student need. Readings, tutorial discussion, and research report or creative projects.

**OCN 897 Research Project (1-3)**

*Prerequisites:* graduate status; GEOL/METR 700 and 701. Thesis research incorporates all aspects of investigative studies from data collection to data analysis. May be repeated for a total of 6 units.

**OCN 898 Master's Thesis (3)**

*Prerequisites:* graduate status; GEOL/METR 700, 701, and 702. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**OCN 899 Special Study (1-3)**

*Prerequisites:* graduate status in oceanography; approval of the department and the instructor. Special study in the laboratory and field under the direction of a member of the department. The student must present a detailed written report of the work accomplished to the faculty of the department. May be repeated for a total of 3 units.

**PERSIAN****Undergraduate Courses****PRSN 100 Summer Immersion Persian (5)**

Six-week program (equivalent to a full year of fundamental studies) designed to develop proficiency in the skills of writing and speaking Persian Language.

**PRSN 101 First Semester Persian (5) [GE]**

*Prerequisite:* None. First semester elementary modern Persian, designed to develop proficiency in the fundamental skills of listening, reading, speaking and writing Persian. Exploration of the geography, history, culture, and religion of the Persian-speaking world.

**PRSN 102 Second Semester Persian (5) [GE]**

*Prerequisite:* PRSN 101 or equivalent. Continuation of First-Semester Persian.

**PRSN 103 Third Semester Persian (5) [GE]**

*Prerequisite:* PRSN 101 and 102 or equivalent. Third semester modern Persian, designed to further develop proficiency in the fundamental skills of reading and speaking. Continued exploration of the geography, history, culture, and religion of the Persian-speaking world.

**PRSN 104 Fourth Semester Persian (5) [GE]**

*Prerequisite:* PRSN 103 or equivalent. Fourth semester modern Persian, designed to further develop proficiency in the fundamental skills of reading, speaking and translating. Continued study of Persian language, literature and culture to achieve a deeper understanding.

**PRSN 206 Basic Persian Conversation (3) [GE]**

*Prerequisite:* PRSN 102 or equivalent. Review basic grammar; develop proficiency in the skills of listening and speaking Persian language.

**PRSN 250 Intermediate Persian (3) [GE]**

*Prerequisite:* PRSN 206 or equivalent. Continued development of grammar and conversation skills.

**PRSN 260 Persian Cultures and Civilization in English (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Exploration of major themes in the development of Persian cultures and civilization from antiquity to present including, but not limited to, religions, languages, ethnicities, arts, traditions, and customs. Taught in English. (Formerly PRSN 401)

**PRSN 350 Advanced Persian (3) [GE]**

*Prerequisite:* PRSN 250 or equivalent. Development of advanced language skills; focus on recognizing forms of standard and vernacular speaking.

**PRSN 411 Persian Media (3)**

*Prerequisite:* PRSN 305 or equivalent. Development of Persian language through examination of current events as presented in the media in Persian and English language.

**PRSN 500 Introduction to Persian Literature (3)**

*Prerequisite:* PRSN 350 or equivalent. Development of poetry and prose in the Persian literature in different periods and genres. Taught in Persian language.

**PRSN 510 Introduction to Persian Literature in Translation (3)**

*Prerequisite:* ENG 214 or equivalent. Examination of history, cultures, traditions, and religions as major themes in contemporary literature of Persian writers. Taught in English.

**PRSN 600 Topics in Persian Studies (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in online Bulletin and Class Schedule. Introduction to Persian Languages, Literatures, Cultures, Arts, History and Cinema. Taught in English. Maybe repeated when topic varies.

**PRSN 601 Religious Traditions in Iran (3)**

*Prerequisite:* ENG 214 or equivalent. Investigation into religious traditions of Iran from the inception to the present-day. Taught in English.

**PRSN 699 Special Study (1-3)**

*Prerequisite:* PRSN 350 or ENG 214 or equivalent. Written projects, in English or Persian, requiring critical analysis and interpretation of cultural or literary issues. May be repeated for a maximum of 6 units.

**PHILOSOPHY***Undergraduate Courses***PHIL 101 Introduction to Philosophy (3) [GE]**

Reflection on basic aspects of human experience, thought, and activity inspired by the writings of philosophers.

**PHIL 105 Introduction to Philosophy and Religion (3) [GE]**

The perennial quest for the sacred. Cosmological, psychological, and mystical teachings of the great Eastern and Western religious traditions.

**PHIL 110 Introduction to Critical Thinking I (3) [GE]**

Skills involved in understanding, criticizing, and constructing arguments--and providing foundation for further work not only in philosophy but in other fields as well.

**PHIL 130 Political and Social Philosophy (3) [GE]**

Liberal democratic theories of decision making and social policy: their place in the world today, their place in the history of social and political philosophy, and in radical and conservative political criticism.

**PHIL 160 Introduction to Philosophy of the Arts (3) [GE]**

Art appreciation and criticism including the nature of beauty, artistic genius, and art as sign or symbol.

**PHIL 205 Formal Logic I (3)**

Contemporary treatment of structure of arguments by means of sentential logic and quantifiers; comparison of axiomatic, natural deductive, and tree-method approaches.

**PHIL 210 Great Thinkers: East and West (3) [GE]**

Enduring philosophical questions about human nature and the cosmos as seen through the eyes of mankind's greatest and most influential thinkers, Eastern and Western.

**PHIL 230 American Political Philosophy (3)**

Philosophical foundations of the values and practices of our law and society, from the nation's founders to philosophies of justice, equality, and rights today.

**PHIL 301 Ancient Philosophy (3) [GE]**

*Prerequisites:* PHIL 110 and ENG 214 or equivalents. Origins of Western philosophy in the Eastern Mediterranean region: from the presocratics to the Stoics, Epicureans, and Neo-Platonists, emphasizing Socrates, Plato, and Aristotle. Connections and contrasts between philosophy, natural science, myth, and religion.

**PHIL 302 Medieval Philosophy (3) [GE]**

*Prerequisites:* PHIL 110 and ENG 214 or equivalents. Medieval philosophy to the Renaissance--Augustine, Boethius, Aquinas, and related authors. Individuals, universals, community; personality, freedom, and nature; theory of signs, symbols, analogical models; labor and intellectual work; private property, law, and the common good.

**PHIL 303 Modern Philosophy (3) [GE]**

*Prerequisites:* PHIL 110 and ENG 214 or equivalents. Modern philosophy against the background of Protestantism, capitalism, the Enlightenment, and modern science to the end of the 19th century. Includes Descartes and continental Rationalism, British Empiricism, Kant; may include such topics as German and British idealism, positivism, and pragmatism.

**PHIL 315 Introduction to Global Peace Studies (3) [GE]**

*Prerequisites:* ENG 214 and upper division standing. Cross listed with GPS/I R 315. For course description, see GPS 315. (May not be repeated under alternate prefix.)

**PHIL 320 Philosophical Analysis - GVAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C- or better, and PHIL 110 or equivalent. Analytic, interpretive and expressive written communication skills essential for philosophical study. (ABC/NC grading only.)

**PHIL 321 Being and Knowing (3)**

*Prerequisite:* ENG 214 or equivalent. Introduction to some of the most important issues in metaphysics and epistemology through their treatment by classic and contemporary authors; e.g., mind and matter, thought, belief, perception, meaning, truth, knowledge, appearance, reality, freedom, and identity.

**PHIL 330 Political Philosophy (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. The forms, purposes, and justification of political orders; theories of human nature, value, and history. Foundations of political philosophy in the thought of such writers as Plato, Hobbes, Mill, and Marx.

**PHIL 335 Law and Society (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Relation between law and society, developed through the analysis of court cases centered on topics (capital versus labor, the individual versus the state) in their historical setting. Legal research.

**PHIL 350 Philosophy of Science (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Philosophy of science with attention to contemporary formulations. Useful background: one or more courses in science and/or engineering.

**PHIL 355 Politics and Ethics of the Consumer Society (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with PLSI 355. For course description, see PLSI 355. (May not be repeated under alternate prefix.)

**PHIL 365 Science and Civilization (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Role of science in modern civilization. Ethical aspects of science, scientific conceptions, and effects of science on the quality and direction of human existence.

**PHIL 369 Philosophical Issues in Sexuality (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Legal, moral, and conceptual issues concerning human sexuality. Rape, pornography, abortion, prostitution, homosexuality, marriage, promiscuity, perversion, sexual politics, sex and religion, and the language of sex. (Cross listed with SXS 369. May not be repeated under alternate prefix.)

**PHIL 375 Peace Law and Human Rights in the U.S. (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with GPS 375. For course description, see GPS 375. (May not be repeated under alternate prefix.)

**PHIL 380 Philosophy of Law (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Relationship of law and morality. Basis for legal accountability. Who should be accountable? For what? Why?

**PHIL 383 Ethics in Medicine (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Ethical issues in medicine and nursing: treating dying patients, right to health care, nurse/physician conflicts, health and basic values, freedom under new technology, and medical bureaucracy. Uses philosophical approaches to understand and to help resolve these problems. [CSL may be available; consult Index for page reference.]

**PHIL 395 Ethical Issues: Science and Technology (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Ethical issues arising from or intrinsic to the process of scientific research and development or from the implementation or commercialization of new technologies.

**PHIL 410 Topics in the History of Philosophy (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary. Useful background: one course in philosophy.

**PHIL 415 The Hebrew Bible (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with JS 415. For course description, see JS 415. (May not be repeated under alternate prefix.)



**PHIL 425 Topics in Existentialism and Phenomenology (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**PHIL 430 Topics in Contemporary Philosophy (3)**

Topic to be specified in Class Schedule. Recent or contemporary philosophical development. Useful background: one course in philosophy. May be repeated when topics vary.

**PHIL 432 Nietzsche and Postmodernism (3)**

*Prerequisite:* ENG 214. Cross listed with HUM 432. For course description, see HUM 432. (Formerly PHIL 367.) (May not be repeated under alternate prefix.)

**PHIL 434 Arendt and Heidegger (3)**

*Prerequisite:* first-year composition or consent of instructor. Cross-listed with HUM 434/JS 414. For course description, see HUM 434. (May not be repeated under an alternate prefix.)

**PHIL 435 Human Rights in Global Perspective (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Law and philosophy of human rights; philosophical issues and controversies about rights, historical development, major problems in implementing rights, and the international human rights movement.

**PHIL 436 Islamic Political Philosophy (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. There is a long and rich tradition of political philosophy in the Islamic cultures of the Middle East. A comprehensive introduction to Islamic political philosophy.

**PHIL 445 Sex and Morality (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Ethical theory and its applications to sexual conduct, therapy, and research. Fundamentals of moral augmentation; complicated, morality-laden issues associated with sexuality. (Cross listed with SXS 469. May not be repeated under alternate prefix.)

**PHIL 450 Ethics (3) [GE]**

*Prerequisite:* one course in philosophy or consent of instructor. Major problems in ethical theory with attention to their contemporary formulations.

**PHIL 455 Sex and the Law (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Philosophical investigation of legal issues pertaining to sexuality. Legal enforcement of morals and of specific cases and statutes regarding marriage, sex discrimination, abortion, rape, homosexuality, pornography, pedophilia, and other sex-related activities. (Cross listed with SXS 569. May not be repeated under alternate prefix.)

**PHIL 460 Philosophy of Art (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Problems in aesthetics; contemporary formulations. Useful background: one course in philosophy.

**PHIL 465 Philosophy of Literature (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**PHIL 470 Environmental Ethics (3) [GE]**

*Prerequisite:* completion of Segment I of GE program. Exploration of how different philosophers, religions, and cultures understand our relationships to the environment. Applying ethical paradigms to the analysis of environmental problems and proposals for solutions.

**PHIL 475 Selected Problems in Philosophy (3)**

*Prerequisites:* two courses in Philosophy or other disciplines directly relevant to the topic being studied. Topic to be specified in Class Schedule. May be repeated when different problems are studied.

**PHIL 482 Philosophy of Feminism (3)**

*Prerequisite:* upper division standing or consent of instructor. Exploration of the foundations of feminist philosophy through a survey of what important figures from the feminist history of philosophy have said about central topics.

**PHIL 500 Philosophy of Religion (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. The nature and function of fundamental religious concepts and claims.

**PHIL 501 Judaism, Christianity, and Islam (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Cross listed with JS/HUM 501. For course description, see JS 501. (May not be repeated under alternate prefix.)

**PHIL 502 World Religions (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Major religions of mankind, their history and teachings: Hinduism, Buddhism, Confucianism, Taoism, Christianity, Judaism, and Islam. Useful background: one course in philosophy.

**PHIL 508 Indian Philosophy and Religion (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Upanishads, Sankhya-Yoga; Buddhism, Jainism; Vedanta, Later Buddhism. Useful background: PHIL 500. May be repeated when different traditions are studied. Topic to be specified in Class Schedule.

**PHIL 509 The Buddhist Tradition (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. An introduction to the basic teachings of Buddhism and the major Buddhist traditions in Asia. Among the topics to be discussed are ignorance, paths to enlightenment, meditation, morality, faith, and wisdom.

**PHIL 511 Chinese Philosophy and Religion (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Major philosophical and religious traditions of China. Topics include the I Ching, Confucianism, Taoism, and Chinese Buddhism.

**PHIL 514 Kabbalah and Mysticism in the Jewish Tradition (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Cross listed with JS 410. For course description, see JS 410. (May not be repeated under alternate prefix.)

**PHIL 515 Semitic Religious Thought (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Useful background: PHIL 500. May be repeated when different traditions are studied. Topic to be specified in Class Schedule.

**PHIL 516 Islamic Philosophy (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Examines three interrelated issues: the purpose of philosophy, the good life, and the limits of human reason. Also examined is Islamic philosophy's confrontation with the Islamic traditions of theology, jurisprudence, and mysticism.

**PHIL 525 The Nature of Religious Experience (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Nature of religious experience drawn from different religions and academic disciplines within the humanities and social sciences; investigation of the meaning of religious commitment in a secular world. (Cross listed with RELS 300. May not be repeated under alternate prefix.)

**PHIL 530 Selected Religious Thinkers (3)**

Author or work to be specified in Class Schedule. Useful background: one course in philosophy and religion. May be repeated on advisement.

**PHIL 540 Selected Issues in Religious Thought (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**PHIL 552 Judaism: Religion and Text (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Cross listed with JS 425. For course description, see JS 425. (May not be repeated under alternate prefix.)

**PHIL 605 Metaphysics (3)**

*Prerequisite:* upper division standing or consent of instructor. Metaphysical problems such as those of substance, cause, space, time, and God.

**PHIL 610 Theory of Knowledge (3)**

*Prerequisite:* upper division standing or consent of instructor. Theories of knowledge with attention to their contemporary formulations. Useful background: PHIL 300.

**PHIL 611 Philosophy of Perception (3)**

*Prerequisite:* PHIL 110 and ENG 214 or equivalents. Philosophical problems in relation to perception with specific attention to contemporary formulations: role of sensations, nature of perceptual content, embodiment of perceptual experience.

**PHIL 620 Philosophy of Mind (3)**

*Prerequisite:* ENG 114 or equivalent. Conceptions of the mental and of its relation to the physical, with attention to their contemporary formulations.

**PHIL 621 Minds, Brains and Computers (3)**

*Prerequisite:* first-year composition. Contemporary theories of the mind as a brain process and as a computational process. Foundations and approaches in the cognitive neurosciences.

**PHIL 630 Philosophy of Language (3)**

*Prerequisite:* ENG 114 or equivalent. Philosophical problems associated with language and symbolism with attention to their contemporary formulations.

**PHIL 680 Field Project in Philosophy (1-3)**

Supervised community or university service project related to the student's philosophical studies. Must be arranged through an undergraduate adviser and with an approved agency. May be taken with PHIL 699.

**PHIL 685 Projects in the Teaching of Philosophy (1-4)**

*Prerequisite:* completion of course in which the student will assist with a minimum grade of B. Training in teaching philosophy is provided both by discussion of pedagogy with the instructor of a target course and by mentoring and other appropriate activities.

**PHIL 691 Reading Circle (1)**

*Prerequisite:* ENG 414; twelve units upper division philosophy courses, and consent of instructor. Close reading of an important and difficult philosophical text, with attention to issues of interpretation.

**PHIL 694 Philosophical Logic Workshop (3)**

*Prerequisite:* PHIL 205 or consent of instructor. Focus on puzzles and paradoxes raised in seminal philosophical papers in the twentieth century and their impact on analytic philosophy, with reference to the history of modern logic.

**PHIL 695 Advanced Logic Workshop (3)**

*Prerequisite:* introduction to Symbolic Logic or consent of instructor. Logic (theory and applications) beyond propositional/predicate calculus, such as sets and sequences, completeness, decidability and adequacy, incompleteness, many-valued logics, intentional logic, induction, conditionals, proof, contradiction, or validity.

**PHIL 696 Directed Reading: Learning Outcomes (1)**

*Prerequisite:* senior standing and consent of instructor. Individualized course enables students, together with the faculty, to assess their learning outcomes. Students submit early and recent essays from previous classes and reflective essay on development of their own skills and knowledge. CR/NC grading only.

**PHIL 699 Special Study (1-3)**

*Prerequisite:* consent of instructor. An advanced study of a selected philosophical problem under the direction of instructor. May be repeated.

**Graduate Courses****PHIL 700 Seminar in Selected Problems (3)**

*Topic to be specified in Class Schedule.* May be repeated when different problems are studied.

**PHIL 715 Seminar in Philosophical Writing (3)**

*Prerequisite:* admission to the graduate program in philosophy. Advanced analytic, interpretive, and expressive skills essential to the writing, reading, and study of philosophy. Cannot be used to satisfy the "four-seminar" requirement.

**PHIL 717 Projects in the Teaching of Philosophy (1-3)**

*Prerequisites:* two semester courses in the history of philosophy, a course in ethics, a course in symbolic logic, and an advanced course in epistemology or philosophy of science. Individual projects under faculty supervision undertaken in conjunction with teaching assignments in undergraduate courses. Research and reports of research on the aims and methods of teaching philosophy to undergraduates. May be repeated for a total of 6 units.

**PHIL 718 Teaching Philosophy (1)**

*Prerequisite:* graduate standing or consent of instructor. Workshops and individual conferences prepare students to teach Philosophy in the Graduate Teaching Associate program. (May not be applied to the Philosophy M.A. degree.) (CR/NC grading only.)

**PHIL 730 Seminar in the Philosophy of Religion (3)**

*Prerequisites:* two semester courses in the history of philosophy, a course in ethics, a course in symbolic logic, and an advanced course in epistemology or philosophy of science. *Topic to be specified in Class Schedule.* May be repeated when different problems are studied.

**PHIL 770 Seminar in a Classical Author (3)**

*Prerequisites:* two semester courses in the history of philosophy, a course in ethics, a course in symbolic logic, and an advanced course in epistemology or philosophy of science. *Author to be specified in Class Schedule.* May be repeated when different works are studied.

**PHIL 772 Seminar in a Classical School (3)**

*Prerequisites:* two semester courses in the history of philosophy, a course in ethics, a course in symbolic logic, and an advanced course in epistemology or philosophy of science. *Topic to be specified in Class Schedule.* May be repeated when different schools are studied.

**PHIL 795 Early Modern Philosophy (3)**

Analysis of two or more early modern philosophers, ranging from the canonical (e.g. Descartes, Leibniz, Locke, Hume) to the newly recovered (e.g. Astell, Reid). Attention to one or more particular themes: individuation, perception, science, faith, morality, women, and similar topics.

**PHIL 805 Seminar in Metaphysics (3)**

*Prerequisites:* two semester courses in the history of philosophy, a course in ethics, a course in symbolic logic, and an advanced course in epistemology or philosophy of science. *Topic to be specified in Class Schedule.* May be repeated when different problems are studied.

**PHIL 810 Seminar in the Theory of Knowledge (3)**

*Prerequisites:* two semester courses in the history of philosophy, a course in ethics, a course in symbolic logic, and an advanced course in epistemology or philosophy of science. Problems in epistemology.

**PHIL 811 Seminar in Philosophy of Perception (3)**

*Prerequisite:* graduate standing or consent of instructor. Fundamental issues in the philosophy of perception, such as nature and cognitive function of perceptual content. Investigation of mutual relevance of philosophical debates on perception and studies in the cognitive sciences.

**PHIL 820 Seminar in the Philosophy of Mind (3)**

*Prerequisites:* graduate standing or consent of instructor. In-depth study of important issues in the philosophy of mind, such as intentionality, mind/body relation, consciousness, thought, and perception.

**PHIL 830 Seminar in Philosophy of Language (3)**

*Prerequisites:* two semester courses in the history of philosophy, a course in ethics, a course in symbolic logic, and an advanced course in epistemology or philosophy of science. Philosophical problems associated with language and symbolism, with in-depth study of recent advances in the field.

**PHIL 850 Seminar in the Philosophy of Science (3)**

*Prerequisites:* two semester courses in the history of philosophy, a course in ethics, a course in symbolic logic, and an advanced course in epistemology or philosophy of science. Problems of philosophy of science.

**PHIL 851 Feminist Ethics and Political Philosophy (3)**

*Prerequisite:* graduate standing or consent of instructor. Central themes, developments, and debates in feminist ethics and political philosophy and their critiques of the mainstream canon. Relationship between feminist philosophy and current issues.

**PHIL 890 Seminar on Current Issues in Philosophy (3)**

*Prerequisites:* two semester courses in the history of philosophy, a course in ethics, a course in symbolic logic, and an advanced course in epistemology or philosophy of science. *Topic to be specified in Class Schedule.* May be repeated when topics vary.

**PHIL 890 Evidence and Reliability (3)**

*Prerequisite:* graduate standing or consent of instructor. Exploration of issues related to reliability and its evidential basis in science, using philosophy of science sources as well as studies in reliabilist epistemology and social epistemology.

**PHIL 890 Epistemology of Simulation (3)**

*Prerequisite:* graduate standing or consent of instructor. Philosophical and epistemological issues related to the epistemic function of simulations both in scientific investigation and in models of cognitive activity.

**PHIL 891 Graduate Reading Circle (1)**

*Prerequisite:* 6 units of graduate level philosophy courses and consent of instructor. Close reading of an important and difficult philosophical text, which pays attention to place of text in history of philosophy and to issues of interpretation. May be repeated for a total of 3 units. CR/NC grading only.

**PHIL 896 Directed Reading in Fundamental Philosophical Texts (3)**

*Prerequisites:* two semester courses in the history of philosophy, a course in ethics, a course in symbolic logic, and an advanced course in epistemology or philosophy of science. Directed reading in depth and detail of fundamental philosophical texts. Course culminates in a written examination after end of semester but before beginning of subsequent semester.

**PHIL 898 Master's Thesis (3)**

*Prerequisite:* advancement to candidacy for the Master of Arts in Philosophy. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**PHIL 899 Special Study (1-3)**

*Prerequisites:* consent of the graduate major adviser and the supervising faculty member. Study is planned, developed, and completed under the direction of a member of the faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**PHYSICAL THERAPY****Graduate Courses**

*Prerequisite for each of the graduate courses in physical therapy:* admission to classified graduate status in physical therapy or consent of instructor.

**PT 700 Comprehensive Physical Therapy Management (3)**

*Prerequisites:* PT 201, 202, PATH 135.01, and admission to classified graduate status in physical therapy or consent of instructor. Physical therapy management in acute care, emergencies, dermatological conditions, wound care, adaptive procedures and equipment, communication disorders, fitness testing and promotion, and rehabilitation of medical problems resulting in physical disabilities. Classroom, 1 unit; laboratory, 2 units.

**PT 704 Education, Learning, and Memory in Physical Therapy (2)**

*Prerequisite:* admission to classified graduate status in physical therapy or consent of instructor. Principles of communication, attention, learning, and memory affecting physical therapist's role as an educator in individualized patient and caregiver instruction, staff development programs, community health promotion and education. Setting objectives, instructional strategies, documentation, measurement of progress and evaluation.

**PT 705 Administration and Organization in Physical Therapy (2)**

*Prerequisite:* admission to classified graduate status in physical therapy or consent of instructor. Specific administrative and planning skills required for physical therapy practice in various settings. Quality assurance, documentation, personnel and fiscal management, planning, contracting, health services administration, health care team, professional and medical-legal issues.

**PT 706 Structure, Function and Motion in Physical Therapy (2)**

*Prerequisite:* Admission into the MS-DPT program. Combine knowledge of human anatomy with basic structural and kinesiological principles to understand normal functional motion of the spine, trunk, and extremities in preparation for the analysis of abnormal human motion in the Neuromusculoskeletal Pathokinesiology PT course series. 1 unit seminar, 1 unit laboratory.

**PT 710 Neurological Pathokinesiology I (4)**

*Prerequisite:* admission to classified graduate status in Physical Therapy or consent of instructor. Pathokinesiological and neuromotor principles applied to assessment and treatment of neurological dysfunction across the life span. Physical rehabilitation of patients with neurological impairments from trauma, infection, congenital defects, vascular and degenerative diseases. Classwork, 2 units; laboratory, 2 units.

**PT 711 Neurological Pathokinesiology II: Assessment, Prevention, and Remediation (3)**

*Prerequisites:* PT 710, admission to classified graduate status in physical therapy or consent of instructor. Neuromotor and pathokinesiological principles applied to advanced techniques in management of patients with neurological disorders. Evaluation and application of research. Classwork, 2 units; laboratory, 1 unit.

**PT 720 Cardiopulmonary Pathokinesiology I (2)**

*Prerequisite:* admission to classified graduate status in physical therapy or consent of instructor. Assessment and treatment of kinesiological/physiological dysfunction of cardiac and pulmonary systems. Physical rehabilitation or training for cardiac and/or pulmonary limitations arising from trauma, disease, congenital defect, or life style. Classwork, 1 unit; laboratory, 1 unit.

**PT 735 Psychosocial Issues in Rehabilitation Sciences (3)**

*Prerequisite:* Admission to classified graduate status in PT or consent of instructor. Psychosocial factors and models of therapeutic interventions that influence patient and physical therapist interactions; exploration of supportive services leading to maximal independence within the health service and community environments.

**PT 736 Ecological and Organizational Issues in Rehabilitation (3)**

*Prerequisite:* admission to classified graduate status in physical therapy or consent of instructor. Cultural, environmental, and legislative issues affecting accessibility of physical therapy and related services. Sociocultural issues relative to quality of health as a right; influences of political and fiscal climates on trends in models of health care delivery.

**PT 737 New Dimensions in Physical Therapy (2)**

*Prerequisites:* PT 200 and 201; admission to classified graduate status in physical therapy or consent of instructor. Topic to be specified in Class Schedule. Selected topics reflecting developing directions in physical therapy. May be repeated for a total of 4 units when topics vary. CR/NC grading. Classwork, 1 unit; laboratory, 1 unit.

**PT 741 Musculoskeletal Pathokinesiology I (4)**

*Prerequisites:* PT 200, PT 201. Surface anatomy, basic structure, biomechanical principles applied to the understanding of normal and abnormal human motion in the upper and lower extremities and to the analysis of physical function. Examination and treatment skills for musculoskeletal disorders. Classwork, 2 units; laboratory, 2 units. (Formerly PT 703.)

**PT 742 Musculoskeletal Pathokinesiology II (4)**

*Prerequisites:* PT 741. Surface anatomy, basic structure, biomechanical principles applied to the understanding of normal and abnormal human motion in the spine and pelvis and to the analysis of physical function. Examination and treatment skills for musculoskeletal disorders. Classwork, 2 units; laboratory, 2 units. (Formerly PT 701.)

**PT 743 Musculoskeletal Pathokinesiology III (3)**

*Prerequisites:* PT 741, PT 742. Assessment and therapeutic techniques in management of complex patients with musculoskeletal problems. Evaluation and application of research. Problem solving. Patient presentation; evaluation of new techniques. Classwork, 2 units; laboratory, 1 unit. (Formerly PT 702.)

**PT 801 Clinical Clerkship I (6)**

*Prerequisites:* successful completion of year 1 coursework with minimum GPA of 3.0; must be admitted to DPT program. Full-time 8 week clinical affiliation. Students participate in patient care, attend clinic meetings and seminars, present an inservice, and submit case reports, personal clinical goals, and reflections. CR/NC grading only, RP.

**PT 802 Clinical Clerkship II (6)**

*Prerequisites:* successful completion of year 2 coursework with minimum GPA of 3.0; must be admitted to DPT program. Full-time 8 week clinical affiliation. Students participate in patient care, attend clinic meetings and seminars, present an inservice, submit case reports, and write personal clinical goals, and reflections. CR/NC grading only, RP.

**PT 803 Clinical Clerkship III (6)**

*Prerequisites:* successful completion of year 2 coursework with minimum GPA of 3.0; must be admitted to DPT program. Full-time 8 week clinical affiliation. Students participate in patient care, attend clinic meetings and seminars, present an inservice, submit case reports, and write personal clinical goals, and reflections. May be repeated for a total of 12 units. CR/NC only, RP.

**PT 890 Research Seminar in Physical Therapy (3)**

*Prerequisites:* PT 253; admission to classified graduate status in physical therapy or consent of instructor. Research designs, problem solving, methodologies, and data analysis for specific topics in basic and clinical physical therapy research. Implementation of one facet of an on-going project, under guidance of the principal investigator. CR/NC grading only.

**PT 899 Special Study (1-3)**

*Prerequisites:* consent of major adviser and supervising faculty member; admission to classified graduate status in physical therapy or consent of instructor. Independent study or research planned, developed, and completed under the direction of a faculty member. Open only to graduate students who have demonstrated ability to do independent work. May be repeated for a total of 6 units.

*Joint Doctoral Courses***PT 908 Professional Colloquium (1)**

*Prerequisites:* admission to DPT program and PT 208 (UCSF). Topics relative to evidence based PT practice: ethics, human subjects, research, authorship, scientific writing; and to professional issues: legislation, direct access to PT services, and reimbursement for services.

**PT 910 Evidence Based Practice (4)**

*Prerequisite:* Admission to DPT program. Research, preparation, and presentation of an evidence-based review reflecting a clinical question relevant to physical therapy.

**PT 920 Case Reports (5)**

*Prerequisite:* admission to DPT program. Research, preparation, and presentation of a case report on the diagnosis and treatment of a patient care problem relevant to physical therapy.

**PT 930 Mentored Clinical Clerkship (6)**

*Prerequisites:* PT 801, 802, and 803; minimum GPA of 3.0 in coursework to date; must be admitted to DPT program. In a clinical setting, students treat patients and work with experienced clinicians who provide mentoring and consultation for case reviews, physical therapy techniques and review of specialty areas; full-time 8 week clinical experience. CR/NC grading. May be repeated for a total of 12 units.

**PT 960 Teaching Practicum (3)**

*Prerequisites:* acceptance into the doctoral program in physical therapy; PT 704 or equivalent. Develop necessary teaching skills for classroom, clinic, and laboratory. Students take this course at least twice and teach in the clinic at least one semester and in the classroom, one semester. CR/NC grading only. May be repeated for a total of 12 units.

**PT 990 Doctoral Colloquium (1)**

*Prerequisites:* acceptance into doctoral program in physical therapy and California licensure. Forum for discussion on current research, application of research to practice. Students participate in all semesters in the doctoral program and are responsible for planning at least one session. CR/NC grading only. Must be repeated for a minimum of 4 units; may not be taken for more than 8 units.

**PT 996 Directed Studies (3)**

*Prerequisite:* acceptance into the doctoral program in physical therapy. Development of research skills in preparation for doctoral laboratory original research. Student will be in a laboratory setting with faculty, post-doctoral and pre-doctoral students. Consists of seminars, journal clubs, and laboratory assignments. CR/NC grading only. May be repeated for a total of 9 units.

**PT 997 Research (2)**

*Prerequisites:* nine units of PT 996 or UCSF equivalent; passing score on Oral Comp exam. Collection of data on original research project under the direction of dissertation advisor and dissertation committee. Determination of objectives and evaluation criteria by advisor based on stage of the project. CR/NC grading. May be repeated for a total of 8 units.

**PT 998 Dissertation (3)**

*Prerequisite:* acceptance into doctoral program in physical therapy. Students obtain all approvals and original research for culminating experience. Students collect and analyze data and in final semester prepare a manuscript suitable for submission for publication.

**PHYSICS***Undergraduate Courses***PHYS 101 Conceptual Physics (3) [GE]**

*Prerequisite:* high school algebra and score of 50 or above on entry level mathematics (ELM) examination, which must be taken prior to enrollment. Basic concepts of force, motion, heat, sound, light, electricity, magnetism, and atoms. Suitable as preparation for PHYS 111 and 121.

**PHYS 102 Conceptual Physics Laboratory (1) [GE]**

*Must be taken concurrently with PHYS 101.* Laboratory exercises in basic physics. Extra fee required.

**PHYS 111 General Physics I (3) [GE]**

*Prerequisite:* MATH 109 or equivalent. *Must be taken concurrently with PHYS 112.* Score of 50 or above on entry level mathematics (ELM) examination, which must be taken prior to enrollment. Acceptable score on the physics readiness test (to be administered during first week of class). Mechanics, heat, and sound using algebra and trigonometry.

**PHYS 112 General Physics I Laboratory (1) [GE]**

*Must be taken concurrently with PHYS 111.* Mechanics, heat, and sound. Extra fee required.

**PHYS 121 General Physics II (3)**

*Prerequisite:* PHYS 111. *Must be taken concurrently with PHYS 122.* Light, electricity, magnetism, atoms, and modern physics.

**PHYS 122 General Physics II Laboratory (1)**

*Must be taken concurrently with PHYS 121.* Light, electricity, magnetism, atoms, and modern physics. Extra fee required.

**PHYS 220 General Physics with Calculus I (3) [GE]**

*Prerequisites:* high school physics or equivalent, MATH 226 with a grade of C or better, and satisfactory score on physics placement examination. *Must be taken concurrently with PHYS 222 and MATH 227.* Basic mechanics. Calculus is used in examples and problems. Optional tutorial discussion.

**PHYS 222 General Physics with Calculus I Laboratory (1) [GE]**

*Must be taken concurrently with PHYS 220 or 221.* Experiments in mechanics. Extra fee required.

**PHYS 230 General Physics with Calculus II (3)**

*Prerequisites:* PHYS 220 and MATH 227, both with grades of C or better; MATH 228 recommended. *Must be taken concurrently with PHYS 232.* Introduction to electricity and magnetism. Calculus is used in examples and problems.

**PHYS 232 General Physics with Calculus II Laboratory (1)**

*Must be taken concurrently with PHYS 230 or 231.* Experiments in electricity and magnetism.

**PHYS 240 General Physics with Calculus III (3)**

*Prerequisites:* PHYS 220 and MATH 227, both with grades of C or better; MATH 228 recommended. *Must be taken concurrently with PHYS 242.* Recommended for physics majors. Wave motion, optics, and thermodynamics.

**PHYS 242 General Physics with Calculus III Laboratory (1)**

*Must be taken concurrently with PHYS 240 or 241.* Experiments in wave motion, optics, and thermodynamics.

**PHYS 320 Modern Physics I (3)**

*Prerequisites:* PHYS 230 or 231, PHYS 240 or 241, and MATH 228, all with grades of C or better. Theory of relativity, quantum phenomena, the Bohr model, quantum mechanics, atomic and nuclear structure.

**PHYS 321 Modern Physics Laboratory (2)**

*Must be taken concurrently with PHYS 320.* Experiments on quantum physics and other phenomena of modern physics. Methods of data and error analysis. Classwork, 1 unit; laboratory, 1 unit.

**PHYS 325 Modern Physics II (3)**

*Prerequisite:* PHYS 320 with grade of C- or better. Molecules, crystal structure, theory of the solid state, semiconductors, the nucleus, elementary particles.

**PHYS 330 Analytical Mechanics I (3)**

*Prerequisites:* PHYS 230 or 231 and MATH 245 or 376, with grades of C- or better. Vector analysis, fundamentals of statics, kinematics, and dynamics of rigid bodies and systems of particles.

**PHYS 340 The Big Bang - GWAR (3)**

*Prerequisites:* ENG 214 (or equivalent) with grade of C or better; PHYS 320 (or equivalent) with grade of C- or better. Cross listed with ASTR 340. For course description, see ASTR 340. (May not be repeated under alternate prefix.)

**PHYS 360 Electricity and Magnetism I (3)**

*Prerequisites:* PHYS 230 or 231, PHYS 330, and MATH 374 or PHYS 385, all with grades of C- or better. Electrostatics, including boundary-value problems, fields in polarizable media, magnetostatics.

**PHYS 370 Thermodynamics and Statistical Mechanics (3)**

*Prerequisite:* PHYS 240, PHYS 320, and MATH 228, all with grades of C or better. Classical thermodynamics, kinetic theory, and elementary statistical mechanics. Applications may include quantum statistics, black-body radiation, paramagnetic spin systems, and low-temperature phenomena.

**PHYS 385 Introduction to Theoretical Physics I (3)**

*Prerequisites:* PHYS 240/242 with grades of C- or better. *Must be taken concurrently with PHYS 330.* Principles of theoretical physics. Theoretical techniques applied throughout mechanics, electricity and magnetism, optics, relativity, quantum mechanics, etc. Applications of vector and tensor spaces, coordinate systems, and group theory.

**PHYS 430 Quantum Mechanics I (3)**

*Prerequisites:* PHYS 320 and PHYS 360 (may be taken concurrently), MATH 374 or PHYS 385, and either MATH 245 or MATH 376, all with grades of C- or better. Postulates of quantum mechanics, one-dimensional problems, barriers and the WKB approximation, angular momentum, and hydrogen atom.

**PHYS 431 Quantum Mechanics II (3)**

*Prerequisite:* PHYS 430 with grade of C- or better. Problems in three dimensions, matrix mechanics, spin, application to atomic and molecular physics, perturbation theory, and scattering.

**PHYS 440 Computational Physics (4)**

*Prerequisites:* PHYS 320, PHYS 430 or 460, CSC 309 or CSC 210 (or equivalent by consent of instructor), all with grades of C- or better. Analysis and simulation of physical systems by computer. Differential equations, chaos theory, spin systems, Monte Carlo method, neural networks, and theory of computation. Paired with PHYS 740. Students who have completed PHYS 440 may not take PHYS 740 for credit. Classwork, 3 units; laboratory, 1 unit.

**PHYS 450 Introduction to Solid State Physics (3)**

*Prerequisites:* PHYS 320/321 and MATH 245 or 376, all with grades of C- or better. Physical properties of crystalline solids including dielectrics, ferroelectrics, conductivity, semiconductors and superconductors; problems in solid state physics.

**PHYS 457 Principles of Electronics (4)**

*Prerequisites:* PHYS 121 or 230 or 231 and MATH 226, all with grades of C- or better. Characteristics of diodes, transistors (bipolar and field effect), and analog integrated circuits and their use in amplifier, oscillator, and filter circuits and instruments. Classwork, 3 units; laboratory, 1 unit. (Formerly PHYS 357.)

**PHYS 460 Electricity and Magnetism II (3)**

*Prerequisite:* PHYS 360 with grade of C- or better. Maxwell's equations; waves in free space and in dielectrics; reflection and refraction; radiation; special-relativistic transformation of the electromagnetic field.

**PHYS 480 Introduction to Optics & Photonics (3)**

*Prerequisites:* PHYS 230 and 240; PHYS 320 and 385 recommended; all with grades of C- or better. Ray optics, including optical fibers and instruments. Wave optics, including interference, diffraction, electromagnetic waves and polarization. Selected topics including beam optics, Fourier optics, photonic-crystal optics, laser basics, holography.

**PHYS 490 Physics Project Laboratory (2)**

*Prerequisites:* ENG 214 (or equivalent) with grade of C or better; PHYS 321 with grade of C- or better. Experiments from the fields of atomic, nuclear, solid-state, and optical physics with emphasis on electronic instrumentation and computer-assisted data acquisition. Classwork, 1 unit; laboratory, 1 unit. (Effective Fall 2010, completion of PHYS 490 and PHYS 491GW with a grade of C or better culminates in the satisfaction of GWAR.)

**PHYS 491 Advanced Laboratory II - GWAR (1)**

*Prerequisite:* PHYS 490 with a grade of C or better. Advanced laboratory work in atomic, nuclear, solid state, and optical physics. Preparation of publication-quality reports and oral presentations on experiments. May be repeated for a total of 2 units. (Satisfies GWAR when taken Fall 2010 and thereafter, in sequence with PHYS 490 and completed with a grade of C or better.)

**PHYS 495 Introduction to Apparatus Fabrication (1)**

*Prerequisites:* PHYS 490 with grade of C- or better, major standing, and consent of instructor.

Laboratory work with materials, machine tools (lathe, mill, etc.), and fabrication methods for the production of experimental research apparatus. Safety considerations.

**PHYS 690 Seminar in Physics (1-3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated 3 times when topics vary.

**PHYS 695 Culminating Experience in Physics (1)**

*Prerequisite:* Student must be in his/her final semester of a Physics degree program. Preparation of a portfolio of work completed in classes required for the degree. The final examination will be the ETS physics major field test.

**PHYS 697 Senior Project (1-3)**

*Prerequisites:* PHYS 490 and consent of faculty adviser. Participation in experimental or theoretical project under the direction of faculty member. Written report of specific observations and calculations required. May be repeated.

**PHYS 699 Special Study in Physics (1-3)**

*Prerequisites:* approval of the department and the instructor concerned. Study in the laboratory or library under the direction of a member of the department. For students majoring or minoring in physics. Student must present a detailed written report of the work accomplished to the department. May be repeated for a total of 12 units.

**Graduate Courses****PHYS 701 Classical Mechanics (3)**

*Prerequisite:* PHYS 785 (may be taken concurrently). Lagrangian mechanics, rigid-body kinematics and dynamics, theory of small vibrations, Hamiltonian mechanics, and canonical transformations.

**PHYS 704 Electricity and Magnetism I (3)**

*Prerequisites:* PHYS 785, PHYS 460, PHYS 701 recommended. Boundary-value problems in electrostatics, magnetostatics; Maxwell's equations and the causal structure of electrodynamics; plane waves and wave propagation.

**PHYS 706 Quantum Mechanics (3)**

*Prerequisites:* PHYS 701 and PHYS 785. Bound states, collision theory, matrix mechanics, symmetry and groups, perturbation theory.

**PHYS 710 Advanced Laboratory Techniques (3)**

*Prerequisite:* PHYS 490. Techniques of electronic instrumentation, computerized data acquisition, digital signal processing, and data analysis designed to prepare the student for experimental research work in academic and industrial laboratories. Classwork, 2 units; laboratory, 1 unit.

**PHYS 711 Semiconductor Devices and Technology (3)**

*Prerequisite:* PHYS 450. Physical principles of semiconductor devices based on metal-semiconductor and bipolar junctions and field effects. Introduction to integrated circuit fabrication technology.

**PHYS 712 Physics of Plasmas (3)**

*Prerequisites:* PHYS 460, 485. Plasma physics: definition and examples of plasmas. Motion of a charged particle in EM fields. The Boltzman and Vlasov equations. Magnetohydrodynamics. Waves, instabilities; applications to controlled thermonuclear fusion and space physics.

**PHYS 714 Low-Temperature Physics (3)**

*Prerequisites:* PHYS 360, 430. Low temperature thermal and electrical behavior of materials. Phenomena and theories of low and high temperature superconductivity. Superfluidity. Superconductive devices, including Josephson junctions, quantum interference devices, phonon detectors, and computing circuits.

**PHYS 715 Lasers and Quantum Optics (3)**

*Prerequisites:* PHYS 430, 460. Atom-field interaction, stimulated emission, dipole oscillations, the ammonia maser, semi-classical laser theory, coherent states, quantum laser theory, Fourier optics, and holographic interferometry.

**PHYS 722 Astrophysics (3)**

*Prerequisites:* ASTR 400 or ASTR 700; PHYS 370, 430, 460, or equivalents. PHYS 785 recommended. Radiative transfer; bremsstrahlung, Compton scattering, and synchrotron radiation; fluid dynamics and astrophysical shocks. Applications may include accretion, star formation, galaxy formation, star and galaxy clusters, active galactic nuclei, jets, and cosmic ray acceleration.

**PHYS 725 Special and General Relativity (3)**

*Prerequisites:* PHYS 701 and PHYS 785. Tensor formulation of special relativity with astrophysical applications. Riemannian geometry. The Einstein field equations applied to Mercury's orbit, black holes, gravitational lensing, cosmology, and interstellar travel. Computer visualizations of spacetimes and orbits.

**PHYS 726 Quantum Field Theory (3)**

*Prerequisites:* PHYS 430, 431, 706. Relativistic wave equations; quantization of the scalar, Dirac, and Maxwell fields. The LSZ reduction formula for S-matrix elements. Path-Integral evaluation of time-ordered products. Tree-level Feynman diagrams in quantum electrodynamics, and an introduction to non-abelian gauge theory.

**PHYS 730 Seminar (1-3)**

*Prerequisite:* graduate status or consent of instructor. Topic to be specified in Class Schedule. A maximum of 4 units may be applied to a degree. May be repeated for a total of 6 units when topics vary.

**PHYS 732 Instructional Methods in Physics (2)**

*Prerequisite:* graduate status or consent of instructor. Must have concurrent GTA appointment. Problems unique to the instruction of laboratory classes. The introductory lecture; handling of demonstrations, supervision of laboratory students, the laboratory write-up, etc. Student presentations are videotaped for review and discussion.

**PHYS 740 Computational Physics (4)**

*Prerequisites:* PHYS 320, PHYS 430 or PHYS 460, CSC 210 or CSC 309 (or equivalent by consent of instructor), all with grades of C- or better. For course description, see PHYS 440; PHYS 740 requires additional simulation and investigation projects. Paired with PHYS 440. Students who have completed PHYS 440 may not take PHYS 740 for credit. Classwork, 3 units; laboratory, 1 unit.

**PHYS 775 Statistical Physics (3)**

*Prerequisites:* PHYS 370, MATH 376, and PHYS 385. Statistical methods in physics: probability, phase space, distribution functions, partition functions. Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein statistics. Phase transitions, Monte Carlo method, transport theory.

**PHYS 785 Theoretical Physics (3)**

*Prerequisites:* PHYS 360 and concurrent enrollment with PHYS 460. Advanced concepts and techniques in mathematics applied to problems in physics. Applications in mechanics, electricity and magnetism, and fluids. (Plus-minus letter grade only.)

**PHYS 885 Projects in Teaching Physics/Astronomy (1-3)**

*Prerequisite:* graduate standing. Learning experience and pedagogical strategies and principles of teaching and learning physics and/or astronomy. One unit is required of students in their first GTA position. May be repeated for a total of 3 units. (CR/NC grading only.)

**PHYS 891 Physics Research Design (1-3)**

*Prerequisite:* must have passed Level 1 Written English Proficiency Requirement, and have research project approved. Elements of PHYS/ASTR research proposals: literature review, project significance, and feasibility, materials and methods, budget, data analysis and presentation, statistical significance, reference notation. (May be repeated for a total of 4 units.)

**PHYS 896 Directed Reading in Physics (1-3)**

*Prerequisite:* graduate standing. Readings/tutorials to achieve better understanding of specific topics based on individual student need. Focus on review and integration of core concepts in preparation for the comprehensive oral examination. (Does not count toward MS degree requirements.) (CR/NC grading only)

**PHYS 897 Research (1-3)**

*Prerequisite:* completed undergraduate major in physics. Independent and original laboratory investigation under supervision of a staff member. May be repeated.

**PHYS 898 Master's Thesis (3)**

*Prerequisite:* graduate status. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**PHYS 899 Special Study (1-3)**

*Prerequisites:* approval of the department and the instructor concerned. Study in the laboratory or library under the direction of a member of the department. For graduate students in physics. The student must present a detailed written report of the work accomplished to the department. May be repeated.

**POLITICAL SCIENCE****Undergraduate Courses****PLSI 100 Understanding Politics (3) [GE]**

Concepts and principles of political thought, action, and institutions.

**PLSI 106 Capitalism, Socialism, and Democracy: Introduction to Political Economy (3) [GE]**

Cross listed with S S 106. For course description, see S S 106. (May not be repeated under alternate prefix.)

**PLSI 200 American Politics (3) [USG,CSLG]**

Governmental institutions, politics, and issues in the U.S. and California in historical, social, and cultural perspective. (Fulfills the U.S. Government and California State and Local Government components of the U.S. History and Government Requirement) [CSL may be available; consult Index for page reference.]

**PLSI 250 Comparative Politics (3)**

Governmental institutions, political processes, socio-economic development and issues in countries around the world.

**PLSI 273 Essentials of California Politics (1)**

Basics of California state and local politics for students from out of state (including international students) who have satisfactorily completed a course that fulfills the US government requirement, but not the California State and local government requirement. [CSLG]

**PLSI 275 Introduction to Political Theory (3)**

Competing traditions of political theory: the foundation of political thought; the nature and scope of politics.

**PLSI 300 Scientific Inquiry in Political Science (4)**

*Prerequisite:* PLSI 200 or equivalent. *Recommended:* a course in critical thinking. Introduction to empirical research in political science. Topics include the philosophy of science, research design, and inferential statistics.

**PLSI 301 Public Administration and Democracy (3)**

*Prerequisite:* ENG 214 or equivalent. Introduction to the field of public administration and its role in today's society. How public administrators and bureaucracies contribute to the development of public policy and its implementation in an on-going democracy. (Cross listed with PA 301. May not be repeated under alternate prefix.)

**PLSI 320 Political Forum (2)**

*Prerequisites:* PLSI 200 or equivalent and consent of instructor. Topic to be specified in Class Schedule. May be repeated on advisement when topics vary.

**PLSI 321 Development and Foreign Policy-Africa (4) [GE]**

*Prerequisite:* ENG 214. Cross listed with I R 321. For course description, see I R 321. (May not be repeated under alternate prefix.)

**PLSI 322 Latin American Policy Analysis (4) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Cross listed with I R 322. For course description, see I R 322. (May not be repeated under alternate prefix.)

**PLSI 325 Chinese Foreign Policy (4) [GE]**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Cross listed with I R 325. For course description, see I R 325. (May not be repeated under alternate prefix.)

**PLSI 328 Domestic and Foreign Policy: Post-Communist Regions (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. Cross listed with I R 328. For course description, see I R 328. (May not be repeated under alternate prefix.)

**PLSI 329 U.S.-Japan Politics (4) [GE]**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with I R 329. For course description, see I R 329. (May not be repeated under alternate prefix.)

**PLSI 342 Strategy and War (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. Cross listed with I R 342. For course description, see I R 342. (May not be repeated under alternate prefix.)

**PLSI 351 Political Theory: The Classical Tradition - GVAR (4)**

*Prerequisite:* ENG 214 or equivalent with grade of C- or better; upper division standing or consent of instructor; PLSI major. Nature of the state, power and authority, forms of government, law and justice, leadership and citizenship, as presented in the writings of Plato, Aristotle, Cicero and Machiavelli. ABC/NC grading only.

**PLSI 353 Political Theory: The Twentieth Century (4)**

*Prerequisite:* upper division standing or consent of instructor. Changing nature of political theory since the mid-19th century; the impact of sociology, psychology, and existentialism on political speculation. Technology, totalitarianism, and the crisis of the modern political order.

**PLSI 354 Politics, the Environment, and Social Change (4) [GE]**

*Prerequisite:* PLSI 200 or consent of instructor. Political impact of environmental problems and the challenges they present for American and international policy-making, values, and institutions.

**PLSI 355 The Politics and Ethics of the Consumer Society (3)**

*Prerequisite:* upper division standing or consent of instructor. Politics and ethics of consumption-oriented society; nature of industrial society; its structures, values, and consumption practices. (Cross listed with PHIL 355. May not be repeated under alternate prefix.)

**PLSI 357 Political Movements: Lessons from Freedom Summer - GVAR (4)**

*Prerequisite:* ENG 214 (or equivalent) with grade of C- or better; upper division standing. Examination of origins, strategies, theory and outcomes of the Civil Rights Movement in terms of their relevance to social and political social activism today. (ABC/NC grading only.)

**PLSI 360 Development of American Political Thought (4)**

*Prerequisite:* PLSI 200 or 310. Political theories associated with movements in the development of the U.S. Persisting and recurring problems in political thought.

**PLSI 380 Problems in Political Theory (4)**

Topic to be specified in Class Schedule. Relationships between political theory and civilizations past and present: political alienation, politics of literature and art, sexuality, child rearing, family and politics; politics of violence, value theory, anarchism. May be repeated when topics vary.

**PLSI 381 Political Theories of Sexuality (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. The ways political theory has conceived of, engaged with, and deconstructed notions of gender and sexuality. Twentieth century thought destabilized the concept of gender even as it produced a new "identity:" queerness.

**PLSI 382 Politics and Literature (4)**

*Prerequisite:* ENG 214 or equivalent. Examination of political themes in classical drama and contemporary novels. Possible authors include Sophocles, Shakespeare, Coetzee, and Tabucchi.

**PLSI 386 Introduction to Critical Social Thought (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with CST 300. For course description, see CST 300. (May not be repeated under alternate prefix.)

**PLSI 387 Non Western Comparative Political Thought (4)**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Comparative political thought as a site for interdisciplinarity across comparative studies, political theory, and philosophy. Central debates include the role of global citizenship, global culture, cross-cultural philosophical analysis, human and civil rights.

**PLSI 387 Non Western Comparative Political Thought - GVAR (4)**

*Prerequisites:* ENG 214 or equivalent with a grade of C- or better; upper division political science major. Comparative political thought as a site for interdisciplinarity across comparative studies, political theory, and philosophy. Central debates include the role of global citizenship, global culture, cross-cultural philosophical analysis, human and civil rights.

**PLSI 388 Politics and the Popular (4)**

*Prerequisite:* PLSI 275. Examine the relationship between political theory on one hand, and experienced, common sense, and tradition, on the other. Do these forms need to be theorized into coherent ideology? What are the dangers of doing so?

**PLSI 389 Latin American Revolutionary Societies (4)**

*Prerequisite:* upper division standing. Revolution implies a dramatic break with the past, but revolutions actually develop slowly over time, calling upon shared histories that inspire and impede change. Examination of the extent to which Latin American revolutions lived up to the goals that they set down.

**PLSI 392 Latin American Political Thought (4)**

*Prerequisite:* upper division standing. Introduction to some of the most influential Latin American political thinkers including Bolivar, Marti, and Mariategui. Exploration of whether we can speak of Latin American political thought and what sort of silences doing so may entail.

**PLSI 400 Public Policy Process (3) [GE]**

*Prerequisites:* ENG 214 or equivalent and upper division standing. The process of public policy in the domestic context. (Cross listed with P A 400. May not be repeated under alternate prefix.)

**PLSI 404 Politics of China (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Contemporary government and politics of the People's Republic of China with modest concern for the way the past has shaped the present. Main focus is on political institutions and political processes. (Cross listed with I R 404. May not be repeated under alternate prefix.)

**PLSI 407 Politics of Russia (4) [GE]**

*Prerequisite:* upper division standing. Contemporary government and politics of Russia, the way the past has shaped the present. Political institutions, political processes, and ideologies. (Cross listed with I R 407. May not be repeated under alternate prefix.)

**PLSI 408 The U.S.-Mexico Connection: Politics and Cultures (3) [GE]**

*Prerequisites:* upper division standing or consent of instructor. Cross listed with LTNS 670 [formerly RAZA 670]. For course description, see LTNS 670. (May not be repeated under an alternate prefix.)

**PLSI 410 Middle East Politics (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Government and politics of the Middle East and North Africa. Comparative political institutions, ideology, political culture, political economy, social movements, regional conflicts, and international relations.

**PLSI 411 East Asian Politics (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Government and politics of East Asia (China, Japan, South Korea, and Taiwan). Systematic comparison of nations utilizing common themes: political development, political institutions, political economy, political change. (Cross listed with I R 411. May not be repeated under alternate prefix.)

**PLSI 412 South Asian Politics (4) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Political development in the South Asian states; political institutions and processes; parties and election; leadership; current policies and problems. (Cross listed with I R 412. May not be repeated under alternate prefix.)

**PLSI 414 Topics in Comparative Politics (4)**

*Prerequisite:* upper division standing or consent of instructor. Topic to be specified in Class Schedule. Introduction to a wide spectrum of special topics, subjects, or problems in the field of comparative politics; topics vary each semester. May be repeated for a total of 8 units when topics vary.

**PLSI 415 Politics of India (4)**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Contemporary government and politics in India, with attention to social and historical factors, political institutions, processes, and ideologies. Some focus on political economy and foreign policy issues.

**PLSI 415 Politics of India - GVAR (4)**

*Prerequisite:* ENG 214 or equivalent with a grade of C- or better; upper division political science major or consent of instructor. Contemporary government and politics in India, with attention to social and historical factors, political institutions, processes, and ideologies. Some focus on political economy and foreign policy issues. (ABC/NC grading only.)

**PLSI 416 Ethnicity and Nationalism (4) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Issues and problems raised by the phenomena of ethnicity and nationalism, ethnic conflict, and efforts at conflict resolution in a comparative context. (Cross listed with I R 416. May not be repeated under alternate prefix.)

**PLSI 417 Gender, Equality, and Politics: A Comparative Perspective (4)**

*Prerequisite:* upper division standing or consent of instructor. Examination of gendered nature of political representation, employment, and welfare state policy in post-industrialized nations. Emphasis on different political and social arrangements that European governments and social movements have developed to accommodate the growing demand for gender equality. (Cross listed with I R 417. May not be repeated under alternate prefix.)

**PLSI 418 Political Transitions in East & Southeast Asia - GVAR (4)**

*Prerequisites:* ENG 214 or equivalent with grade of C- or better; upper division standing in PLSI major. Examination of political transition theories and divergent patterns of political transition in East and Southeast Asia. Exploration of controversial issues associated with political transition and the prospects for democracy in these regions. ABC/NC grading only.

**PLSI 418 Political Transitions in East & Southeast Asia (4)**

*Prerequisite:* upper division standing or consent of instructor. Examination of political transition theories and divergent patterns of political transition in East and Southeast Asia. Exploration of controversial issues associated with political transition and the prospects for democracy in these regions.

**PLSI 419 Comparative Political Economy (4)**

*Prerequisite:* upper division standing or consent of instructor. Interplay between politics and economics and the interaction between states and markets. Comparison of major competing ideologies and modes of political economy in developed, developing, and communist/post-communist world with particular emphasis on Asian political economies.

**PLSI 420 State-Society Relations in the Middle East (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. State-society relations in the Middle East and North Africa in a comparative perspective. How different social groups interact with state to shape policies, influence political discourse, and pursue political goals. Sources of authoritarian rule and prospects for democratization.

**PLSI 424 Social Movements (4)**

*Prerequisite:* ENG 214 or equivalent. Examines social movements and political action in comparative perspective. An examination of origins, tactics, and outcomes of social movements. (Cross listed with SOC 424. May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**PLSI 430 Israeli Democracy: Politics, Institutions, and Society (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with JS/PLSI 430. For course description, see JS 430. (May not be repeated under alternate prefix.)

**PLSI 431 Constructing Kurdistan (4)**

*Prerequisites:* PLSI 250, or PLSI 410, or HIST 605, or IR 323, or IR 324, or MEIS 300; upper division standing; or consent of instructor. Examines Kurdish nation- and state-building efforts in Iraq and Turkey in the 20th and early centuries. Includes introduction to theories on nationalism, state-formation, social movements, and ethnic conflict. (Cross listed with MEIS 431. May not be repeated under alternate prefix.)

**PLSI 460 Topics in American Politics (4)**

*Prerequisite:* upper division standing or consent of instructor. Topic to be specified in Class Schedule. Various topics in American politics including political institutions, public opinion political behavior, parties and elections, law and courts, and political groups. May be repeated when topics vary.

**PLSI 465 Reason, Passion, and Political Behavior (4)**

*Prerequisites:* upper division standing or consent of instructor. Examination of the cognitive processes involved in the formation of political beliefs, and their link to political behavior. Emphasis on the connection of theoretical models with politics focusing on campaigns and voter choice.

**PLSI 466 Race and American Democracy (4) [GE]**

*Prerequisite:* ENG 214 or equivalent. Subordinate status of African-Americans and others in the U.S.; nexus between power, racism, and violence. Strategies for social change in terms of leadership, organization, and movements. (Cross listed with ETHS 466. May not be repeated under alternate prefix.)

**PLSI 473 California Politics and Government (4) [GE,CSLG]**

*Prerequisite:* upper division standing or consent of instructor. Policymaking and exercise of power within federal framework. State and local issues and institutions. (Fulfills the California State and Local Government component of the U.S. History and Government Requirement) [CSL may be available; consult Index for page reference.]

**PLSI 475 San Francisco Political Issues (4)**

*Prerequisite:* upper division standing. Political mobilization and governance. Electoral processes. Economic, ethnic, and cultural conflicts. May be repeated with consent of the instructor. (Cross listed with USP 485. May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**PLSI 477 Congress and the Presidency (4)**

*Prerequisite:* upper division standing or consent of instructor. Structure, roles, and functions of the legislative and executive branches of national government. Legislative-executive policy controversies.

**PLSI 480 Introduction to Urban Policy and Analysis (4) [GE]**

*Prerequisite:* upper division standing. Political and institutional settings for policy making. Concepts and techniques of policy, planning, and administration. (Cross listed with USP 480. May not be repeated under alternate prefix.)

**PLSI 492 Research Methods (4)**

*Prerequisite:* upper division standing. Cross listed with USP 492. For course description, see USP 492. (May not be repeated under alternate prefix.)

**PLSI 493 Data Analysis (4)**

*Prerequisite:* PLSI/USP 492 or equivalent. Statistical analysis for politics, public policy, administration, and urban studies. Uses, interpretation, and limitations. (Cross listed with USP 493. May not be repeated under alternate prefix.)

**PLSI 500 Labor and Government (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with LABR 500. For course description, see LABR 500. (May not be repeated under alternate prefix.)

**PLSI 512 Urban Politics and Community Power (4)**

*Prerequisite:* upper division standing or consent of instructor. Political dynamics in the contemporary metropolitan context; bases and distribution of power in urban and suburban areas. Intergovernmental relations and urban political power. (Cross listed with USP 512. May not be repeated under alternate prefix.) [CSL may be available; consult Index for page reference.]

**PLSI 512 Urban Politics and Community Power - GVAR (4)**

*Prerequisites:* ENG 214 or equivalent with grade of C or better; upper division standing; PLSI/USP majors or consent of instructor. Political dynamics in the contemporary metropolitan context; bases and distribution of power in urban and suburban areas. Intergovernmental relations and urban political power. ABC/NC grading only. (Cross listed with USP 512GW. May not be repeated under alternate prefix.) [CSL may be available; consult Index for page reference.]

**PLSI 513 Politics, Law, and Urban Environment (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with USP 513 and GEOG 668. For course description, see URBS 513. (May not be repeated under alternate prefix.)

**PLSI 544 Women in the World (4) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Cross listed with I R/S 544. For course description, see I R 544. (May not be repeated under alternate prefix.)

**PLSI 551 Judicial Process (4) [GE]**

*Prerequisite:* PLSI 200 or equivalent. Leadership and power in Supreme Court decision-making. Principles and meaning of the U.S. Constitution governing the powers and relationships of the branches and levels of the American political system.

**PLSI 552 Individual Rights and the Constitution (4)**

*Prerequisite:* PLSI 551 or consent of instructor. Principles and meaning of the U.S. Constitution controlling the relationships between the individual and government.

**PLSI 553 Legal Issues (4) [GE]**

*Prerequisite:* PLSI 551 or consent of instructor. Judicial decision-making, influence on the formulation of public policy, political influence on the judiciary, individual rights, the impact of decisions, legal reform. May be repeated on advisement.

**PLSI 554 Separation of Powers and Federalism (4)**

*Prerequisites:* PLSI 551 or consent of instructor. Leading Supreme Court decisions establishing the powers and limits on power of the Federal Courts, Congress, the President, and the States under the U.S. Constitution.

**PLSI 560 Urban Poverty and Policy (4) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with USP 560. For course description, see USP 560. (May not be repeated under alternate prefix.)

**PLSI 561 Jurisprudence (4)**

*Prerequisite:* PLSI 551 or consent of instructor. Philosophy of law. Relationship between law, morality, social and political institutions. Various schools of jurisprudence.

**PLSI 561 Jurisprudence - GVAR (4)**

*Prerequisite:* ENG 214 or equivalent with a grade of C- or better; upper division political science major. Philosophy of law. Relationship between law, morality, social and political institutions. Various schools of jurisprudence. (ABC/NC grading only.)

**PLSI 580 Housing Policy and Planning (3) [GE]**

*Prerequisite:* upper division standing. Cross listed with USP 580. For course description, see USP 580. (May not be repeated under alternate prefix.)

**PLSI 603 Public Service Internships (3)**

*Prerequisites:* upper division standing and consent of instructor. *Must be taken concurrently with PLSI 604.* Fieldwork in approved public, private, non-profit, or political organization under supervision of organization staff and faculty coordinator. May be repeated on advisement. (Cross listed with USP 603. May not be repeated under alternate prefix.) [CSL may be available; consult Index for page reference.]

**PLSI 604 Internship Seminar (1)**

*Must be taken concurrently with PLSI 603.* Analysis of internship experiences. May be repeated on advisement. (Cross listed with USP 604. May not be repeated under alternate prefix.) [CSL may be available; consult Index for page reference.]

**PLSI 610 Judicial and Legal Internship (3)**

*Prerequisites:* upper division standing and consent of instructor; interview required. *Must be taken concurrently with PLSI 611.* Fieldwork in approved legal and judicial organizations under supervision of judges, lawyers, legal organization staff, and faculty coordinator. May be repeated for a total of 6 units on advisement.

**PLSI 611 Judicial and Legal Internship Seminar (1)**

*Must be taken concurrently with PLSI 610.* Analysis of internship experiences. May be repeated for a total of 2 units on advisement.

**PLSI 620 Pre-law Peer Advising (2-4)**

*Prerequisite:* upper division standing and consent of instructor; GPA of 3.0 or better. Law school admission procedures and LSAT; opportunities for financial aid of law-related careers; courses and events relevant to legal issues and legal service opportunities. May be repeated for a total of 8 units.

**PLSI 660 The Roles of Non-Profit Organizations in Urban Life (3) [GE]**

*Prerequisite:* senior standing. Cross listed with S W/USP 660. For course description, see S W 660. (May not be repeated under alternate prefix.)

**PLSI 685 Projects in the Teaching of Political Science (1-4)**

*Prerequisites:* PLSI 100, 200, and senior standing. Reading and discussion in the teaching of political science. Responsibilities include working with supervising faculty member in preparing

**PLSI 699 Special Study (1-4)**

*Prerequisites:* consent of instructor; major adviser, and department chair. Supervised study of a particular problem selected by the student with the advice of the instructor. Enrollment by petition.

**Graduate Courses****PLSI 700 Research Methods (3)**

*Prerequisites:* Graduate Standing. Introduction to methodologies that pertain to designing a research project in political science.

**PLSI 708 College Teaching of Political Science (3)**

*Prerequisite:* classified graduate standing. Planning and teaching of college level political science courses. Supervised experience to be evaluated through examination of contemporary literature and practice.

**PLSI 740 Seminar in American Politics (3)**

*Prerequisite:* graduate standing or consent of instructor. American government and politics: political parties, interest groups, presidency, legislative assemblies, judiciary, electoral behavior, and political opinion. (Formerly PLSI 710)

**PLSI 741 Topics in American Politics (3)**

*Prerequisite:* graduate standing or consent of instructor. Varied topics in American politics. Topic to be specified in Class Schedule. May be repeated once when topics vary. (Formerly PLSI 711)

**PLSI 742 Public Opinion, Elections, and Media (3)**

*Prerequisite:* graduate standing or consent of instructor. Seminar seeks to evaluate key elements of the transformation of American politics by focusing on recent developments in political science that model contemporary public opinion, electoral and media processes. (Formerly PLSI 711)

**PLSI 743 Race, Ethnicity & Immigration in American Politics (3)**

*Prerequisite:* graduate standing or consent of instructor. How immigration impacts the practice of racial and ethnic politics in the U.S. Focus on Asian Americans, Blacks, and Latinos. (Formerly PLSI 711)

**PLSI 744 U.S. Supreme Court in the Making of Public Policy (3)**

*Prerequisite:* graduate standing or consent of instructor. Focus on the political and policymaking powers of the U.S. Supreme Court. Topics include political jurisprudence, constitutional and statutory interpretation, the selection process, the decisional process, appellate process, and the impact of Supreme Court decisions. (Formerly PLSI 711)

**PLSI 745 Post Civil Rights Period in American Democracy (3)**

*Prerequisites:* graduate standing or consent of instructor. The substantive theoretical and methodological problems associated with the study of racial politics in the literature of political science. A particular focus is that of analyzing Black politics in the post civil rights era. (Formerly PLSI 711)

**PLSI 746 Urban Politics and Power (3)**

Urban politics including competing theories of power, racial and ethnic politics in the urban context, and various issues that concern cities, such as globalization, gentrification, and governance.

**PLSI 760 Seminar in Comparative Politics (3)**

*Prerequisite:* graduate standing or consent of instructor. Modernization and political development, development theory, bases of political power, and role of the state. [Formerly PLSI 720]

**PLSI 762 Asian Transitions from Communism (3)**

*Prerequisite:* graduate standing or consent of instructor. Comparative study of the political economy of transitions from communism in Asia, communist and the post-communist states--China, North Korea, Vietnam, Laos, and Cambodia. [Formerly PLSI 721]

**PLSI 763 Comparative Welfare States (3)**

*Prerequisite:* graduate standing or consent of instructor. Examination of empirical and theoretical materials on the origins, developments, achievements, recent changes, and problems of the welfare state in Western Europe and the U.S. with an emphasis on class, gender, race analysis. [Formerly PLSI 721]

**PLSI 764 Democracies and Democratization (3)**

*Prerequisite:* graduate standing or consent of instructor. Theoretical and empirical analyses of the relationship between state and society in selected third world nations. [Formerly PLSI 721]

**PLSI 765 Social Movements of the Islamic World (3)**

*Prerequisites:* graduate standing or consent of instructor. Examines social movements in different Muslim countries and societies, with an emphasis on the Middle East. Topics include social movement theory and comparative case studies of 20th and 21st century religious and national movements. [Formerly PLSI 721]

**PLSI 766 State-Society Relations in the Non-Western World (3)**

*Prerequisite:* graduate standing or consent of instructor. State-society relations in the Middle East, Asia, Africa, South America, and elsewhere. Development of the modern state; how states and societies interact; how social groups limit and empower states. [Formerly PLSI 721]

**PLSI 767 Indian Politics Seminar (3)**

*Prerequisite:* graduate standing. Contemporary government and politics in India. Analysis of political institutions and processes, patterns of political mobilization and change. Plus-minus letter grade only.



**PLSI 780 Seminar in Political Theory (3)**

*Prerequisite:* graduate standing or consent of instructor. Literature of political thought. [Formerly PLSI 730]

**PLSI 782 Colonialism, Gender and Scientific Racism (3)**

*Prerequisite:* graduate standing or consent of instructor. Intellectual history of scientific racism, colonial regimes, and gendered oppression. Impact of colonialism on contemporary identities and contemporary approaches to knowledge; in particular, the museum, the household, the body, mission schools, and new forms of work. [Formerly PLSI 731]

**PLSI 783 Postmodern Political Theory (3)**

*Prerequisite:* graduate standing or consent of instructor. Intensive introduction to postmodern political theory. Starting with Nietzsche, examines the role of contemporary philosophy in terms of critique of grand narratives, the deconstruction of the subject, history and politics itself. [Formerly PLSI 731]

**PLSI 784 Intergovernmental Relations (3)**

*Prerequisites:* graduate status or consent of instructor. Cross listed with P A 784. For course description, see P A 784. (May not be repeated under alternate prefix.)

**PLSI 785 Seminar on Rawls (3)**

*Prerequisite:* graduate standing or consent of instructor. Study of the work of John Rawls, arguably the most influential western political theorist of our time; focus on his major work, A THEORY OF JUSTICE, as well as his final work, JUSTICE AS FAIRNESS: A RESTATEMENT. Plus-minus letter grade only.

**PLSI 786 Great Theorists: Walter Benjamin (3)**

*Prerequisite:* graduate standing or consent of instructor. Walter Benjamin, one of the premier thinkers of the 20th century, and a major influence on figures such as Hannah Arendt, Jacques Derrida, Michel Foucault and others. To thoroughly examine Benjamin is to make inquiries into the basis of thought for the previous century as well as our own. (Cross listed with GER 786/HUM 725. May not be repeated under alternate prefix.)

**PLSI 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the master's degree and consent of chairman of candidate's committee for the master's degree. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**PLSI 899 Special Study (1-4)**

*Prerequisites:* consent of graduate major adviser, supervising faculty member, and department chair. Study is planned, developed, and completed under the direction of a member of the departmental faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition

**PSYCHOLOGY***Undergraduate Courses***PSY 111 The Logic and Psychology of Critical Thinking (3) [GE]**

Designed to improve students' skills in understanding/criticizing arguments, theories, and their own reasoning process. The aim is to apply an analytic approach to the evaluation of oral-written communication, and to their own problem-solving activities.

**PSY 171 Quantitative Reasoning in Psychology (3) [GE]**

*Prerequisites:* satisfactory completion of ELM requirement. Fulfills G.E. quantitative reasoning requirement. Psychological statistics and measurement essential to understanding statistical and quantitative arguments. Classwork, 2 units; laboratory, 1 unit.

**PSY 200 General Psychology (3) [GE]**

Basic methods and concepts of psychology which have broad academic relevance and which can be applied to the study of psychology as well as other academic disciplines. Psychology majors must take for a letter grade and earn a C or better to continue in the major. [CSL may be available; consult index for page reference.]

**PSY 299 Community Service in Psychology (1-3)**

*Prerequisite:* consent of instructor. Must be taken concurrently with PSY 298. Supervised experience. May be repeated once for a total of 6 units. [CSL may be available; consult index for page reference.]

**PSY 300 Current Issues in Psychology (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Selected issues and controversies of current scientific and professional importance. Advanced study of behavior as a personal, social, and biological phenomenon, and treatment of psychology as a science and as a healing art.

**PSY 301 Psychological Foundations I: Cognition, Motivation, Physiology (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Overview of theory and research from core topic areas in experimental psychology. Cognitive, motivational, and physiological processes are described and applied to specific problems, situations, and behaviors.

**PSY 302 Psychological Foundations II: Social, Personality, and Developmental (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Perspectives on human behavior from social psychology, personality theory, and developmental psychology. The application of psychological knowledge to human and social problems is emphasized.

**PSY 303 Psychology: The Major and the Profession (1)**

*Prerequisites:* psychology major; must be taken in the first semester of the major. Overview of the psychology major and the field of psychology. CR/NC grading only.

**PSY 305 Contemporary Issues in Psychology (1-3)**

*Prerequisite:* PSY 200 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary. No more than 3 units may be applied toward the psychology major or minor.

**PSY 320 Sex and Relationships (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Explores the role of sexuality in traditional and emerging forms of intimate relationships. (Cross listed with SXS 320. May not be repeated under alternate prefix.)

**PSY 330 Child Development (3) [GE]**

*Prerequisite:* PSY 200 or equivalent. Intended for non-psychology majors. The development of the child from conception to adolescence. (Credit not given for both PSY 330 and PSY 431.)

**PSY 371 Introductory Psychological Statistics (3)**

*Prerequisite:* PSY 200 or equivalent with grade of C or better. Priority enrollment given to upper division psychology majors. Statistical theory and techniques appropriate to psychology and related fields; statistical inference and the testing of hypotheses. Psychology majors must take for a letter grade and earn C or better. Classwork, 2 units; laboratory, 1 unit.

**PSY 400 Introduction to Research in Psychology (3)**

*Prerequisite:* PSY 200 and 371 or equivalent with grade of C or better, and upper division standing. Priority registration given to psychology majors. Integrates psychological research methods with statistical techniques. Theoretical, empirical and interpretive issues are examined within the fundamental methods of inquiry: observation, measurement of individual differences, surveys, and experiments. Lecture, 2 units; lab, 1 unit.

**PSY 430 Adolescent Psychology (3)**

*Prerequisite:* PSY 200 or equivalent; PSY 330 or 431, or consent of instructor. Priority enrollment given to upper division psychology and child and adolescent development majors. The physical, intellectual, emotional, and social development during adolescence.

**PSY 431 Developmental Psychology (3)**

*Prerequisite:* PSY 200 or equivalent. Priority enrollment given to upper division psychology and child and adolescent development majors. Fundamental principles of developmental psychology; origin and development of behavior. (Credit not given for both PSY 431 and PSY 330.)

**PSY 432 Cognitive Development: Language, Thinking, and Perception (3)**

*Prerequisite:* PSY 431 or consent of instructor. Priority enrollment given to psychology and child and adolescent development majors. Cognitive development is studied from two dominant approaches--Piagetian and information processing. The textbooks used are collections of articles by leading theoreticians and researchers in the areas of perception, attention, mental representation (episodic and semantic), and problem solving.

**PSY 433 Social, Emotional, and Personality Development (3)**

*Prerequisite:* PSY 431 or consent of instructor. (May be taken before, after, or concurrently with PSY 432.) Priority enrollment given to psychology and child and adolescent development majors. Advanced course in developmental psychology covering theory and data in the areas of emotional, social, and personality development over the life span.

**PSY 435 Behavior Problems of Children (3)**

*Prerequisite:* PSY 330 or 431 or consent of instructor. Priority enrollment given to upper division psychology and child and adolescent development majors. Children's behavior disorders, child guidance facilities, and clinical methods used in the study and treatment of children with problems.

**PSY 436 The Development of Femaleness and Maleness (4)**

*Prerequisites:* PSY 371, upper division standing, or consent of instructor. Integration of biological, psychological, social, and cultural knowledge toward an understanding of the development of maleness and femaleness. A critical look at theories of sex-typing and sex differences in behavior, with attention to sex-role stereotypes and social issues. (Cross listed with SXS 436. May not be repeated under alternate prefix.)

**PSY 440 Social Psychology (3)**

*Prerequisites:* PSY 200 or equivalent. Priority enrollment given to upper division psychology majors. Survey of theories, research, and applications in major areas of social psychology, including communication and social influence processes in interaction, group dynamics, attitudes, stereotyping and prejudice, altruism and aggression, person perception and social cognition, sex roles and sex differences, crowds and social movements.

**PSY 441 The Psychology of the Family (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. The family as a psychological group; the husband-wife relationship with special attention to the dynamics of pairs; the impact of the family on personality and mental health.

**PSY 442 Health Psychology (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. A critical review of the relationships between psychological variables and both physical and mental health. Combination of lectures, tests, reading of original research, and conducting an actual study in the field. Students gain a knowledge of the relationships between health and psychology and become critical readers of literature relating the two.

**PSY 450 Variations in Human Sexuality (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with SXS/SOC 400. For course description, see SXS 400. (May not be repeated under alternate prefix.)

**PSY 451 Theories of Personality (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Survey of the major contemporary theories of personality. Theoretical positions are compared and critically examined along various significant dimensions, including their relationships to the total field of psychology. Methods of personality assessment as related in theory construction.

**PSY 452 Abnormal Psychology: Minor Variants of Personality (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. The nature and development of emotional disturbances which result in a person's failure to adapt adequately in this society; contemporary theories of personality development as well as a clinical description of the neuroses.

**PSY 455 Cross-Cultural Perspectives in Psychology (3)**

*Prerequisite:* PSY 200 or equivalent. Priority enrollment given to upper division psychology majors. Cross-cultural behavioral, developmental, cognitive, and social data and research of psychological phenomena as they are differentially affected by culture and subculture. Emphasis on the diversity of parent-child relationships, role of women and men, adult personality and beliefs, attitudes and values.

**PSY 456 Psychology of Human Sexual Behavior (3) [GE]**

*Prerequisites:* upper division standing or consent of instructor. Psychological aspects of human sexual functioning particularly pertaining to gender identity, pairing, sexual orientation, sexual intercourse, self-stimulation, reproduction, contraception, and abortion. Related social issues such as alternative life styles, changing sex roles, and recreational sex. (Cross listed with SXS 456. May not be repeated under alternate prefix.)

**PSY 461 Introduction to Industrial/Organizational Psychology (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Application of psychological principles and methods in understanding human behavior at work, and to approach and solve problems in business and industry. Addresses such issues as: employee selection, training, and evaluation; working conditions; motivation, leadership, and organizational theory.

**PSY 462 Personnel Psychology (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. The application of psychological principles to personnel selection and related practices in organizations. Designed for the psychology major interested in developing proficiency in personnel techniques.

**PSY 463 Human Factors (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. A survey of methods and research in the study of the interface between human operators and machines. Applications include equipment design for computers, aircraft, automobiles, household appliances, and similar systems.

**PSY 464 Environmental Psychology (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Study of humans in everyday, intact settings. Influence of perceptual and cognitive processes on the person/environment interaction. Effect of environment on basic psychological needs are covered, as well as social problems caused by degraded environments.

**PSY 465 The Psychology of Work Life Stress (3)**

*Prerequisites:* PSY 200 or equivalent. Priority enrollment given to upper division psychology majors. General understanding of basic concepts, mechanisms, and issues related to stress; examines basic factors in context of business organizations. Topics include employees' cognitive appraisal of organizational stressors; physiological, psychological, and behavioral outcomes; and individual differences and long-term consequences.

**PSY 466 Training and Development in Organizations (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Application of principles of psychology in the development, delivery, and evaluation of training and development programs in work organizations.

**PSY 472 Introduction to Legal Psychology (3)**

*Prerequisites:* PSY 200 or CJ 300 and upper division standing, or consent of instructor. Priority enrollment given to upper division psychology and criminal justice majors. Topics include laws and the ethics of therapy, alternative dispute resolution, mental health aspects of criminology, police psychology, the insanity defense, treatment of prisoners, the psychological forces toward crime and delinquency, expert mental health testimony, eyewitness testimony, and jury behavior.

**PSY 474 Psychology of Social Justice (3)**

*Prerequisites:* PSY 200 or CJ 300 and upper division standing, or consent of instructor. Priority enrollment given to upper division psychology and criminal justice majors. Psychological explanations for structural barriers to equality and social justice through an exploration of the mainstream psychological literatures of procedural, distributive, retributive and restorative justice.

**PSY 475 Psychology of Policing (3)**

*Prerequisites:* PSY 200 or CJ 300 and upper division standing, or consent of instructor. Priority enrollment given to upper division psychology and criminal justice majors. Psychological study of organizational processes and management of police agencies. Topics include causes and effects of psychological factors affecting police, and implications of military and community-service models of police management on police selection, stress, training, organization development, technology.

**PSY 477 Psychological Measurement (3)**

*Prerequisites:* PSY 371 or consent of instructor. Priority enrollment to upper division psychology majors. Psychological measurement: construction and evaluation of instruments, scaling, correlation. Classwork, 2 units; laboratory, 1 unit.

**PSY 491 Learning (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Methods, findings, and theory in animal and human learning and memory.

**PSY 492 Perception (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Methods, theory, and analysis of sensations and perceptions; the study of the psychological and biological approaches to perception.

**PSY 493 Motivation (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Theory and experimental evidence on the origins and direction of behavior. Learned and unlearned drives, anxiety, curiosity, and emotions.

**PSY 494 Cognitive Psychology (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. An introduction to the dominant paradigm in cognitive psychology—the information processing approach to understanding the nature of human intelligence.

**PSY 498 Cognitive Neuroscience: Psychological Models (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment for upper division psychology majors. Prospects and potential limitations of studying cognitive psychological processes from the integrated perspectives of cognitive psychology, neuropsychology, neural network modeling, and neuroscience.

**PSY 521 Introduction to Clinical Psychology (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. The methods of clinical psychology, including case study techniques, psychodiagnostic evaluation, remediation of psychological distress. The current scope of professional practices in clinical psychology.

**PSY 525 Community Psychology (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Introduction to methods practiced within the community psychology and community mental health fields. A range of methods is presented along with the range of underlying assumptions and philosophies of psychological fieldwork. [CSL may be available; consult index for page reference.]

**PSY 531 Psycholinguistics (3)**

*Prerequisite:* PSY 200 or equivalent. Priority enrollment for upper division psychology majors. Comprehensive introduction to psycholinguistics. Theory and research are examined in three areas of human functioning--comprehension, production, acquisition. In addition, mental representations of meaning, the relation between language and thought, and bidialectism and bilingualism are studied.

**PSY 540 Introduction to Psychological Field Research (3)**

*Prerequisites:* PSY 200, PSY 371, and PSY 400, or consent of instructor. Priority enrollment for upper division psychology majors. Research methods applicable in psychological service agencies. Classwork, 2 units; laboratory, 1 unit.

**PSY 547 Social Conflict and Conflict Resolution (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment for upper division psychology majors. Review of theory and research concerning conflict between individuals and groups. Principles of perception, expectation, subjective expected utility, payoff matrices, prominence, communication restriction, perception, and expectations of personality.

**PSY 558 Field Services Seminar (2)**

*Prerequisites:* PSY 371, upper division standing, and consent of instructor. Priority enrollment for upper division psychology majors and graduating seniors. Must be taken concurrently with PSY 559. Issues in the professional application of psychological principles in community service. May be repeated for credit. No more than 4 units may be applied to the psychology major or minor. [CSL may be available; consult index for page reference.]

**PSY 559 Psychological Field Service (1-3)**

*Prerequisites:* PSY 371, upper division standing, and consent of instructor. Priority given to upper division psychology majors and graduating seniors. Must be taken concurrently with PSY 558. Supervised field services in cooperating community psychological agencies. May be repeated for credit. No more than 6 units may be applied to the psychology major or minor. [CSL may be available; consult index for page reference.]

**PSY 571 Statistical Analysis of Psychological Research (3)**

*Prerequisite:* PSY 371 or equivalent with grade of C or better. Priority enrollment for upper division psychology majors. Statistical theory and techniques applicable to various experimental designs and other forms of psychological research. Classwork, 2 units; laboratory, 1 unit.

**PSY 581 Physiological Psychology I (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Background and contemporary research relating behavior to biological processes. Data on neural and hormonal systems are summarized and used in examining such complex behaviors as learning, perception, and motivation.

**PSY 582 Physiological Psychology II (3)**

*Prerequisites:* PSY 371, PSY 581, or equivalent, or consent of instructor. Selected issues and research dealing with the biological basis of behavior. Students read intensively on a mutually agreed upon topic and report their findings for discussion and development in class sessions.

**PSY 601 Theoretical Backgrounds in Psychology (3)**

*Prerequisites:* PSY 371 and fifteen units of upper division courses in psychology. Priority enrollment to upper division psychology majors. Historical backgrounds and development of basic concepts in psychology in a theoretical and systematic context; contemporary schools and systems in psychology outlined.

**PSY 630 The Psychology of Aging (4)**

*Prerequisites:* PSY 200 or equivalent, PSY 330 or 431, PSY 371, or consent of instructor. Priority enrollment to upper division psychology and child and adolescent development majors. Biological, cognitive, social, and emotional changes during the later adult years. Recent research and theory are studied from the perspective of life-span developmental psychology with a focus on the latter half of the life span.

**PSY 645 Group Processes (3)**

*Prerequisites:* PSY 200, PSY 371, or equivalent. Priority enrollment given to upper division psychology majors. Practicum involving observation of interaction within the class and in outside groups, aimed at the investigation of the psychology of groups.

**PSY 671 A Statistical Package for Analysis of Psychological Research (3)**

*Prerequisite:* PSY 371 or equivalent with grade of C or better. Priority enrollment given to upper division psychology majors. Use of a major statistical package for the analysis of psychological data. Classwork, 2 units; laboratory, 1 unit.

**PSY 680 Peer Advising in Psychology (3)**

*Prerequisites:* junior or senior in psychology; 1 year in residence; 12 psychology units completed; and GPA of 3.0 or better. Prepare and deliver academic advising to undergraduates in psychology: academic policies and procedures. Individual advising 3 hours weekly. May be repeated once. No more than 3 units may be applied to the major. Classwork, 2 units; fieldwork, 1 unit.

**PSY 685 Projects in the Teaching of Psychology (1-4)**

*Prerequisite:* a minimum grade of B in the course the student will be assisting in or consent of instructor. Training and experience in the teaching of psychology through fieldwork and instruction. Students work as Instructional Aides to a psychology instructor and receive training in teaching and learning principles as well as participate in teaching-related activities. May be repeated for a total of 4 units.

**PSY 690 Future Directions for Psychology Majors (1)**

*Prerequisite:* 25 units of psychology. Must be taken in semester student applies for graduation. Web-based self-assessment of interests and goals, creation of a resume, and exploration of career options for psychology majors. CR/NC grading only.

**PSY 691 Applied Behavior Analysis: Selected Topics (3)**

*Topic to be specified in Class Schedule.* May be repeated for a total of 9 units as topics vary.

**PSY 693 Proseminar I (3)**

*Prerequisite:* selection as an honors candidate; must be taken concurrently with PSY 697. First of a two-semester seminar with the principal goal of developing a detailed senior project proposal. Work here may include examination of literature reviews, theoretical contributions, methodological studies, experiments, and field studies and practical applications.

**PSY 694 Proseminar II (3)**

*Prerequisites:* completion of Fall semester work in PSY 693 and 697. Continuation of PSY 693. Intended to facilitate and to provide evaluation of progress toward completion of the senior project. Completed senior project culminates the semester.

**PSY 697 Senior Project Preparation (3)**

*Must be taken concurrently with PSY 693.* Student develops an original project, including background material and theoretical substrate, and prepares a methodology for a paper suitable for presentation in PSY 693.

**PSY 698 Senior Project in Psychology (3)**

*Must be taken concurrently with PSY 694.* Student carries out the senior project and prepares a written report for presentation.

**PSY 699 Special Problems in Psychology (1-4)**

An intensive study of a particular problem in psychology under direction of a member of the faculty. Intended for students who have completed available course work in the area of a special problem. May be repeated when problems vary. No more than 4 units may be applied to the psychology major or minor. [CSL may be available; consult index for page reference.]

**Graduate Courses****PSY 721 Clinical Methods: Assessment of Intelligence and Perceptual-Motor Functioning (3)**

*Prerequisite:* classified graduate status and consent of instructor. Must be taken concurrently with PSY 729. Problems in the assessment of mental and emotional characteristics of individuals. Discussions, demonstrations, and application of individual assessment techniques including the standard individual tests of intelligence for children and adults as well as neuropsychological, educational achievement, and perceptual-motor tests.

**PSY 722 Clinical Methods: Personality Appraisal and Projective Techniques (3)**

*Prerequisite:* PSY 721. Must be taken concurrently with PSY 729. Problems in the assessment and diagnosis of individual personality and its disorders. Discussions, demonstrations, and applications of standard appraisal techniques including projective tests.

**PSY 728 Conference to Accompany Psychology Practicum (3)**

*Prerequisite:* classified graduate status. Seminar to be taken concurrently with PSY 729. Issues in the practice of clinical psychology including alcohol and substance use, general conceptual framework, models of intervention, professional ethics and law, roles and responsibilities of psychotherapists. May be repeated for a maximum of 6 units.

**PSY 729 Psychology Practicum (3)**

*Must be taken concurrently first with PSY 721 and then with PSY 722.* Practicum in the methods and procedures of psychological assessment, diagnosis, and prognosis and techniques of psychological intervention with individuals, couples, and families. May be repeated for a total of 6 units.

**PSY 730 Seminar in Current Issues in Developmental Psychology (3)**

*Prerequisite:* classified graduate status or consent of instructor. Problems and issues in developmental psychology: new directions in theory, method, and research.

**PSY 735 Seminar in Developmental Psychology (3)**

*Prerequisite:* classified graduate status or consent of instructor. Topic to be specified in Class Schedule. Intensive study of selected topics in developmental psychology. May be repeated for credit if different area of emphasis is selected.

**PSY 737 Laboratory in Observation of Children's Behavior (3)**

*Prerequisite:* classified graduate status in psychology or consent of instructor. Must be taken concurrently with PSY 739. Observations and experimental studies of human behavior. Classwork, 2 units; laboratory, 1 unit.

**PSY 739 Technical Writing for Psychological Journals (1)**

Must be taken concurrently with PSY 737. Practicum on preparing written reports on observations of human behavior within American Psychological Association format. Laboratory.

**PSY 740 Seminar in Social Psychology (3)**

*Prerequisite:* classified graduate status or consent of instructor. Critical examination of current theories and research in social psychology, emphasizing social influence processes and personality variables which may affect behavior in diverse organizational and informal settings, and exploring applications of social psychology in the design and assessment of social change.

**PSY 742 Seminar in Survey Research (3)**

*Prerequisite:* classified graduate status or consent of instructor. Principles and methods of survey research are studied and applied in supervised field experiences covering the entire survey process, from research design to sampling, data collection, and preparation of a report.

**PSY 751 Seminar in Current Trends and Issues (3)**

*Prerequisite:* classified graduate status or consent of instructor. New developments drawn from current overviews and symposia. Implications for revision of theory, practice, and experimental procedures. Both ethical views and scientific and applied methods are critically examined.

**PSY 753 Seminar in Therapeutic and Developmental Change I (3)**

*Prerequisites:* classified graduate status and consent of instructor. Converging lines of developmental theory and psychotherapeutic process. The goal is to show that human development is recapitulated in psychotherapeutic treatment. Such convergence is studied with emphasis on early developmental concepts and child psychotherapy. At later points and pathologies of the life cycle, such convergences are also followed.

**PSY 754 Seminar in Therapeutic and Developmental Change II (3)**

*Prerequisite:* PSY 753. Modern versions of psychodynamic theories incorporating family concepts, ethnicity, and community issues including cultural factors in the dynamics of spousal or partner abuse.

**PSY 760 Seminar in Organizational Psychology (3)**

*Prerequisites:* PSY 761 or equivalent, classified graduate status, and consent of instructor. Selected psychological theory and research findings applied to the study of human behavior in organizational settings.

**PSY 761 Industrial and Organizational Psychology (3)**

*Prerequisites:* classified graduate status and consent of instructor. Current problems and problem-solving approaches in selected areas of personnel practices concerning the use and development of human resources in industrial, professional, and other applied fields.

**PSY 762 Seminar in Industrial Psychology (3)**

*Prerequisites:* PSY 761 or equivalent, classified graduate status, and consent of instructor. Theory, research, and methods from I/O psychology pertaining to personnel selection and related decisions in organizations, including job analysis, performance measurement, validation, selection strategies, and test administration.

**PSY 765 Industrial Training Program Development (3)**

*Prerequisites:* classified graduate status and consent of instructor. Examination of the theoretical, methodological, and practical approaches to the development, installation, and evaluation of training programs in the modern work setting. Considers learning theory and research, training theory and techniques, and methods of assessing and evaluating programs.

**PSY 766 Psychological Foundations of Organizational Change (3)**

*Prerequisites:* PSY 761 or equivalent, classified graduate status, and consent of instructor. Psychological theory and research on group and organizational change processes, with attention to problems and methods of organizational change and assessment of organizational intervention outcomes.

**PSY 768 Seminar to Accompany Field Experience in Industrial/Organizational Psychology (3)**

Must be taken concurrently with PSY 769. Experiences in field assignments are explored for theoretical and research implications. Ethical, professional, and inter-professional implications are considered. CR/NC grading only.

**PSY 769 Field Experience in Industrial/Organizational Psychology (3)**

*Prerequisites:* PSY 760, 761, and 762; classified graduate status, and consent of instructor. Supervised field assignments for advanced graduate students in a variety of business, professional, and industrial settings. (May be repeated for credit for a maximum of 6 units.)

**PSY 770 Research Methods and Techniques (3)**

*Prerequisite:* classified graduate status or consent of instructor. Seminar in research designs applicable to the systematic analysis of varieties of human behavior.

**PSY 771 Analysis of Variance and Experimental Design (3)**

*Prerequisite:* intermediate statistics or consent of instructor. Major analysis of variance designs used in psychological research are presented. Topics include introduction to use of a major statistical package. Brief introduction to use of the General Linear Model is presented. Students in the master's program in psychological research should take this course at the first opportunity.

**PSY 772 Applications of Multiple Regression to Psychological Research (4)**

*Prerequisite:* PSY 771 or consent of instructor. Experimental designs using multiple regression/correlation methods. Classwork, 3 units; laboratory, 1 unit.

**PSY 792 Preseminar in Foundations of Contemporary Psychological Research (3)**

Contemporary theory and research in such basic areas of psychology as learning and motivation, sensory process and perception, physiological, developmental, social and personality, and clinical and abnormal. Each seminar topic is directed by a faculty member specializing in that area and accompanied by comprehensive and systematic readings. Students in the master's program in psychological research should take this course at the first opportunity. Lectures and discussion on criteria for the design, execution, analysis, and report of psychological research on animal and human subjects. (CR/NC grading only.)

**PSY 798 Research Colloquium (3)**

*Prerequisite:* classified graduate status or consent of instructor. Presentations and discussions of current or contemplated research projects. CR/NC grading only.

**PSY 799 Supervised Selected Research (2-6)**

*Prerequisite:* PSY 770 or 791. Experimental research under the direction of a member of the faculty. May be repeated for a total of 9 units.

**PSY 821 Clinical Methods: Diagnosis and Advanced Psychopathology (3)**

*Prerequisite:* classified graduate status in clinical or school psychology master's program. Examines various approaches to the evaluation and treatment of major mental disorders including substance abuse disorders and disorders of childhood and adolescence.

**PSY 822 Clinical Methods: Marital and Family Systems Theory and Therapy (3)**

*Prerequisite:* PSY 821. Characteristic interpersonal interactions including those involving substance abuse or partner abuse and how those appear in the clinical interview are studied from different theoretical viewpoints including assessment and intervention procedures. Conditions which promote psychological change in couples and families including same-sex relationships are studied from an interpersonal, familial, and sociocultural perspective.

**PSY 828 Conference to Accompany Advanced Psychology Practicum (3)**

Seminar to be taken concurrently with PSY 829. Therapeutic process and change with diverse sources of psychopathology; processes involving substance abuse and partner abuse. May be repeated for a total of 6 units.

**PSY 829 Advanced Psychology Practicum (3-6)**

*Prerequisite:* PSY 729. Must be taken concurrently with PSY 828. Supervised advanced psychology practicum in clinical psychological evaluation and intervention. May be repeated for a total of 12 units.

**PSY 839 Field Experience in Developmental Psychology (1-3)**

*Prerequisite:* classified graduate status or consent of instructor. Supervised field experience with children and adolescents. May be repeated for a total of 4 units.

**PSY 855 Seminar in Professional School Psychology (3)**

*Prerequisite:* classified graduate status and consent of instructor. Roles, skills, and competencies of professional school psychologists as they apply to educational, career, developmental, and mental health needs of children and opportunities for working with these needs within the interpersonal, legal, and professional structure of the school.

**PSY 857 Behavior Management (3)**

*Prerequisite:* consent of instructor. Cross listed with COUN 719. For course description, see COUN 719. (May not be repeated under alternate prefix.)

**PSY 859 Psychology Internship (3-6)**

*Prerequisite:* PSY 829 or equivalent. Internship in the application of psychological principles and procedures including psychological evaluation, treatment. May be repeated for a total of 12 units.

**PSY 891 Seminar in Selected Problems (3)**

*Prerequisite:* PSY 791 or equivalent. Special areas of psychological research and theory. May be repeated if different area of emphasis is selected.

**PSY 896 Directed Reading (3-6)**

Special problems in psychology, chosen on the basis of individual interests and studied under the direction of a member of the faculty. May be repeated for a total of 9 units.

**PSY 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for a master's degree and consent of chairperson of candidate's committee. The student formulates, conducts, and presents an intensive research thesis which must be defended before a committee drawn from the psychology faculty. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**PSY 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member. Study is planned, developed, and completed under the direction of a member of the faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition (form available in the Psychology Office).

**PUBLIC ADMINISTRATION***Undergraduate Courses***P A 301 Public Administration and Democracy (3)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with PLSI 301. For course description, see PLSI 301. (May not be repeated under alternate prefix.)

**P A 370 Introduction to Non-profit Administration (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with RPT 370. For course description, see RPT 370. (May not be repeated under alternate prefix.)

**P A 400 Public Policy Process (3) [GE]**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Cross listed with PLSI 400. For course description, see PLSI 400. (May not be repeated under alternate prefix.)

**P A 570 Developing and Managing Resources in Non-profit Agencies (3)**

*Prerequisite:* RPT 370 or consent of instructor. Cross listed with RPT 570. For course description, see RPT 570. (May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**P A 582 Community and Economic Development (3)**

*Prerequisites:* ENG 214 and upper division standing. Examines theory and practice of community and economic development, primarily in the domestic urban context. Tools, best practices, current initiatives, strategies, and policies are emphasized. Paired with PA 782. Students who have completed PA 582 may not take PA 782 for credit.

*Graduate Courses***P A 700 Introduction to Public Administration and Public Policy (3)**

*Prerequisite:* graduate standing in Public Administration Program or consent of instructor. Introduction to the discipline of public administration and concepts in public administration, nonprofit administration and public policy. History and theory of the field. Emphasis on basics of professional writing and oral presentations.

**P A 705 Research Methods and Data Analysis I (3)**

*Prerequisite:* graduate standing in Public Administration Program or consent of instructor. Course 1: Applications of research design and data analysis to problems in policy and administration in the public and non-profit sectors. First of a two-part sequence of courses.

**P A 706 Research Methods & Data Analysis II (3)**

*Prerequisite:* P A 705; graduate standing in Public Administration Program or consent of instructor. Applications of data analysis to problems in policy and administration in the public and non-profit sectors. The second of a two-part sequence of courses. P A 710 Microeconomic Analysis for Public Administration (3)

*Prerequisite:* Graduate standing in the Public Administration program or consent of instructor. Application of tools of economics to public policy and administration. Impact of public decision making on households and firms.

**P A 715 Policy-Making and Implementation (3)**

*Prerequisite:* graduate standing in Public Administration Program or consent of instructor. Process and politics of policy making and implementation. Impact of economic structure and fiscal constraints, and of social, historical, legal, political, and administrative conditions.

**P A 720 Managing Organizational Behavior (3)**

*Prerequisite:* graduate standing in Public Administration Program or consent of instructor. Structures, goals, and behavior in organizations; focus upon organizational change and development.

**P A 725 Managing Human Resources (3)**

*Prerequisite:* graduate standing in Public Administration Program or consent of instructor. Concepts, functions, issues, and skills associated with personnel management in public and non-profit organizations.

**P A 730 Managing Budgets in the Public Sector (3)**

*Prerequisite:* graduate standing in Public Administration Program or consent of instructor. Budgeting process across governmental and non-profit sectors, political processes of budgeting. Budgeting, resource allocation, and budget analysis methods and computer applications. Includes 2 hours of activity.

**P A 735 New Trends in the Public and Nonprofit Sectors (3)**

*Prerequisite:* graduate standing in PA Program or consent of instructor. New trends, movements, and developments in the public and nonprofit sectors.

**P A 740 Public Sector Management (3)**

*Prerequisite:* graduate status or consent of instructor. Application of administrative and management systems to public and non-profit sector organizations. Assessment of new trends in the public management field.

**P A 742 Strategic Public and Non-profit Management (3)**

*Prerequisite:* graduate status or consent of instructor. Management systems and techniques developed for performance and productivity improvement in the public and non-profit sectors. Focus upon strategic planning process and total quality management systems.

**P A 744 Nonprofits, Public Policy and Society (3)**

*Prerequisite:* graduate status or consent of instructor. Focus on the vital role of nonprofit organizations in today's society as well as on the public policies that affect and influence that role. (Cross listed with RPT 744. May not be repeated under alternate prefix.)

**P A 745 Administration of Non-profit Organizations (3)**

*Prerequisite:* graduate status or consent of instructor. Social policy roles, economic and political dimensions, and administrative issues for non-profit organizations. Regulation, governance, and organizational management issues.

**P A 747 Developing Non-profit Resources (3)**

*Prerequisite:* graduate status or consent of instructor. Developing non-profit resources through creating and managing fund-raising, grant-writing and volunteer/board of director resources.

**P A 749 Management of NGOs in an International Context (3)**

*Prerequisite:* graduate standing or consent of instructor. Importance of nongovernmental organizations (NGO's) in today's world as well as theory and management of NGOs in an international context. (Cross listed with IR 758. May not be repeated under an alternate prefix.)

**P A 750 Financial Management in the Public Sector (3)**

*Prerequisite:* P A 730. Theoretical and practical aspects of financial management in both public and non-profit organizations.

**P A 752 Public Administration and the Law (3)**

*Prerequisite:* graduate status or consent of instructor. Analyzes legal framework on which public administration is based, including administrative and constitutional law that directs administrators' actions and operations of public and nonprofit agencies. Provides non-technical competence in the constitutional and legal principles to which courts hold public administrators accountable.

**P A 755 Information and Knowledge Management for the 21st Century (3)**

*Prerequisites:* graduate status or consent of instructor. Management and effective use of data, information and knowledge in public and nonprofit sectors. Focus upon the organization, maintenance, use and successful transfer of knowledge to enable organizations to succeed in strategic goals.

**P A 757 E-Government (3)**

*Prerequisite:* graduate status or consent of instructor. Examples and evidence of how governments currently use the Internet. Discussion and presentation of strategies for improving the effectiveness of this usage and the potential for effective service delivery.

**P A 760 Diversity in Public Organizations (3)**

*Prerequisite:* graduate status or consent of instructor. Diversity in public organizations including personnel issues, service delivery, and public policy and legal issues.

**P A 762 Leadership for the Public and Non-profit Sectors (3)**

*Prerequisite:* graduate status or consent of instructor. Contemporary leadership theory and practice with attention to the unique concerns of public service.

**P A 770 Policy Analysis (3)**

*Prerequisite:* graduate status or consent of instructor. Policy analysis and program evaluation used by legislatures and public sector agencies. Policy models, cost benefit evaluation techniques, evaluation research methods.

**P A 775 Program Evaluation (3)**

*Prerequisites:* PA 705, PA 706 (PA 706 may be concurrent), or consent of instructor. Evaluation design, measurement, impact analysis, project implementation and management, and the design and evaluation of requests for proposals and proposals themselves.

**P A 776 Environmental Policy (3)**

*Prerequisite:* graduate standing or consent of instructor. Covers scope and theories of US and CA environmental policy. (Cross listed with GEOG 776. May not be repeated under alternate prefix.)

**P A 780 Urban Administration (3)**

*Prerequisite:* graduate status or consent of instructor. Administrative environment, governmental system and structure, administrative innovations, and decision making in urban government in the U.S.

**P A 782 Community and Economic Development (3)**

*Prerequisite:* graduate status or consent of instructor. For course description, see PA 582. Paired with PA 582. Students who have completed PA 782 may not take PA 582 for credit.

**P A 784 Intergovernmental Relations (3)**

*Prerequisites:* graduate status or consent of instructor. Focus on the relationships (competition, conflict, cooperation and stalemate) between various levels of government and other governmental /quasi-governmental institutions. Focus on political, administrative and managerial. (Cross listed with PLSI 784. May not be repeated under alternate prefix.)

**P A 790 Special Topics in Public Administration (3)**

*Prerequisite:* graduate status or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 6 units when topics vary.

**P A 795 Applied Field Experience (1-3)**

*Prerequisite:* graduate standing in PA program or consent of instructor. Applied, project-based agency experience. Student works with a public, nonprofit, or voluntary agency to gain specific, substantive research or other professional skills to complement the MPA curriculum. May be repeated and included in ATC/GAP for up to 3 units.

**P A 800 Capstone Course in Public Administration (3)**

*Prerequisite:* approved GAP; should be in last semester of program. Synthesizes the knowledge, skills, and abilities learned during the course of the student's program. Emphasis is on critical analysis of case studies, the student learning portfolio, and on completing the program's strategic assessment.

**P A 803 Public Affairs Internship (3)**

*Prerequisites:* student in Public Administration Program, P A 700, and consent of instructor. Must be taken concurrently with P A 804. Professional work experience: students will work 300 hours in a public or nonprofit agency under the supervision of a faculty member and an on-site work supervisor.

**P A 804 Internship Seminar (1)**

*Prerequisites:* student in Public Administration Program, P A 700, and consent of instructor. Must be taken concurrently with P A 803. Seminar to accompany P A 803. Critical reflection on their work experiences and how they contribute to their overall career goals, as well as development of a number of briefing papers related to issues in the workplace.

**P A 858 Seminar in Environmental and Land Use Planning (3)**

Cross listed with GEOG 858. For course description, see GEOG 858. (May not be repeated under alternate prefix.)

**P A 890 Master's Case Study Analysis (3)**

*Prerequisites:* advancement to candidacy for M.P.A. degree and recommendation of major adviser. Case study analysis as the culminating experience option in fulfillment of the requirements for the master's degree.

**P A 895 Master's Project (3)**

*Prerequisites:* advancement to candidacy for the master's degree and consent of graduate adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**P A 897 Research in Public Administration (3)**

*Prerequisite:* P A 895 or 898. Required for all students who have not completed P A 890, 895, or 898. May be repeated. Cannot be used in degree program. CR/NC grading only.

**P A 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy and consent of candidate's thesis committee. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**P A 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member. Study is planned, developed, and completed under the direction of a faculty member. Open to graduate students who have demonstrated ability to do independent work. Enrollment by petition. May be repeated.

**RAZA STUDIES**

See Latina/Latino Studies

**RECREATION AND LEISURE STUDIES**

See Recreation, Parks, and Tourism

**RECREATION, PARKS, AND TOURISM***Undergraduate Courses***RPT 110 Activity Director Training (3)**

Training designed to prepare participants for the role of activity director at health care facilities.

**RPT 152 Aquatic Sports (3)**

*Topic to be specified in Class Schedule.* Development of skills and techniques in aquatic related sports and leisure activities. May be repeated for a total of 12 units. Extra fee may be required.

**RPT 160 Recreation and Leisure Alternative Activities (1-2)**

*Topic to be specified in Class Schedule.* Focus is on selected new and alternative leisure opportunities and resources. May be repeated for a total of 4 units when topics vary. Extra fee may be required.

**RPT 200 Introduction to Recreation, Parks and Tourism (3)**

Recreation, parks, and tourism as a profession; exploration of careers in private, public, and nonprofit sectors; introduction to theory, history, and literature in the field; examination of issues and trends and their implications to the leisure service delivery system.

**RPT 220 Leisure Lifestyle Development (3) [GE]**

Overview of leisure: with emphasis on how the optimal leisure experience can contribute to one's total well-being, acquiring leisure activity skills/techniques, methods of evaluating and enriching one's personal leisure. Not open to recreation majors.

**RPT 225 Information Technology in Recreation, Parks and Tourism (3)**

*Prerequisite:* RPT 200 or consent of instructor. Development of knowledge and skills with information technology and communications in recreation, parks and tourism. Application of word processing, e-presentation, spreadsheet, digital image manipulation and specialized software used in the profession.

**RPT 230 Growth Through Adventure (3) [GE]**

Development of values and understanding of self through outdoor adventure activities. Influences of culture, history, fears, and myths on outdoor adventure activities. Introduction to selected outdoor skills. Survey of selected outdoor adventure activities in the Bay Area and Northern California. Extra fee required.

**RPT 300 Leadership in Recreation, Parks, and Tourism (3)**

*Prerequisite:* upper division standing or consent of instructor. Leadership theory, supervision, interpersonal relationships and group dynamics in recreation, parks, and tourism settings. Influence of ethics. Leadership competencies in planning, safety/risk management, problem solving and evaluation.

**RPT 330 Arts and Crafts for Leisure (3) [GE]**

*Prerequisite:* Upper division standing or consent of instructor. Arts and crafts skills for recreational and clinical/therapeutic purposes; the development of creativity and self-expression in community programs, resources for materials, leadership skills, and equipment use and maintenance are covered. Classwork, 2 units; laboratory, 1 unit. Extra fee required.

**RPT 340 Conference, Event Planning, and Management (3)**

Organizing, planning, and managing conferences, conventions, and special events: site and faculty selection, scheduling, programming and theme development, exhibit management, registration, and over-all meeting services.

**RPT 350 Leadership in University Union/Student Activities Programs (1-3)**

Supervised leadership field experience in a university union/student activities program. May be repeated for a total of 6 units.

**RPT 358 Advanced Sailing Theory and Practice (3)**

*Prerequisites:* RPT 152 or equivalent and consent of instructor. Advanced sailing techniques, competitive sailing, regattas, rule interpretations and supervised experiences including participation in ICCSA regattas. Guest lectures on rule interpretations, tactics, and navigations. May be repeated for a total of 12 units. Extra fee may be added.

**RPT 360 Outdoor Recreation Leadership (1)**

*Prerequisites:* RPT 400 and consent of instructor. Advanced students serve under individual faculty supervision in organizing and conducting outdoor recreation programs. Open only to majors and minors in recreation. May be repeated twice on advisement.

**RPT 365 White Water Raft Guiding (3)**

*Prerequisites:* RPT 160 or previous white water experience; ability to swim 100 yards and tread water for 5 minutes; CPR and First Aid. Skills of white water raft guiding. River hydraulics, water reading, raft maneuvering, equipment care and maintenance, environmental ethics, safety and emergency procedures, trip planning and organization. Classwork, 1 unit; laboratory, 2 units. Extra fee required.

**RPT 370 Principles of Nonprofit Administration (3)**

*Prerequisite:* upper division standing or consent of instructor. Principles of nonprofit agency administration. Understanding of philosophical, historical, and social context; volunteer movement, funding, governance, organization, and management of nonprofit agencies; trends; professional development and employment opportunities. (Cross listed with PA 370. May not be repeated under alternate prefix.)

**RPT 380 Developmental Play Processes (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Concepts and issues related to play, recreation, and leisure; learning and human development throughout the life span; gender and cultural differences; materials and environments; benefits and barriers; engineering and facilitating experiences; and activity adaptation. Classwork, 2 units; Laboratory, 1 unit.

**RPT 390 Leisure Travel and Tourism (3)**

*Prerequisite:* RPT 200 or HTM 110. Investigation into scope and nature of international and domestic travel and tourism industry, trends, tourist motivations, perceptions, consumer behavior, travel facilitators, plans, development, promotion, costing events, travel attractions. (Cross listed with HTM 390. May not be repeated under an alternate prefix.)

**RPT 400 Program Planning in Recreation, Parks, and Tourism (3)**

*Prerequisite:* upper division standing. Theory and process of program assessment, planning, implementation, and evaluation in public and private venues to enhance individual and community life quality. Interrelationship of needs/interests of people, settings, and leisure activities. Program marketing and community outreach.

**RPT 410 Therapeutic and Inclusive Recreation (3)**

*Prerequisites:* RPT 200 or consent of instructor. Universal access, design and inclusion in community and clinical settings. Disabling conditions and implications for leadership, activity adaptation, and programming. Enabling legislation, regulatory agents, and practices relevant to inclusivity and human rights. [CSL may be available; consult index for page reference.]

**RPT 420 Leisure and Contemporary Society (3) [GE]**

A critical behavioral and social analysis of the impact of contemporary and future leisure trends related to technology, aging, polyphasing, activity patterns, resources, etc., and their implications for human health, happiness, and quality of life.

**RPT 430 Ecology of Outdoor Recreation (3)**

*Prerequisite:* consent of instructor. Parks and outdoor recreation. Conservation of resources, appreciation, use and misuse of the natural environment.

**RPT 440 Urban Recreation, Park, and Leisure Services (3)**

*Prerequisite:* upper division standing or consent of instructor. Urban recreation needs, issues, and services; sociopolitical, ethnographic, and demographic influences on recreation, park, and related human service organizations; successful leadership, programming, administrative, and planning principles for urban leisure services.

**RPT 445 Recreation Therapy and the Expressive Arts (3)**

Expressive arts and their use in a therapeutic recreation setting: art, music, movement and dance, poetry, and drama therapy.

**RPT 460 Recreation Destination Resorts (3)**

*Prerequisite:* RPT/HTM 390 or consent of instructor. Leisure experiences provided by resorts, theme parks, campgrounds, hotels, and activity specific centers. Fundamentals of establishing, administering, promoting, and working in recreation resorts.

**RPT 470 Care Break: Alternative Spring Break Service (3)**

*Prerequisite:* upper division standing. Introduces concepts of volunteerism, civic engagement, citizenship, stewardship, and community leadership using service learning experiences. Students think critically about concepts through lectures, discussions, selected readings on issues related to community and service. Mandatory 40-hour spring break service learning experience. [CSL may be available; consult index for page reference.]

**RPT 500 Organization and Administration of Recreation, Parks, and Tourism (3)**

*Prerequisites:* RPT 200, 225 or consent of instructor. Principles and practices in organizational structure, human resources administration, supervision, budgeting and financial management, and analysis of recreation, parks, and tourism organizations. Trends, technology applications, and case studies.

**RPT 520 Parks and Outdoor Recreation Resources (3)**

*Prerequisites:* RPT 200 or consent of instructor. Park operations and regulatory compliance at municipal, county, state, and federal levels; resource acquisition and financing; facility planning, design, and maintenance; environmental issues; ethics; interrelationship between environment and visitor experience; and risk management.

**RPT 540 Start-Up and Sustainable Operations of Tourism, Event and Recreation Enterprises (3)**

*Prerequisites:* RPT/HTM 390 or consent of instructor. Start-up and administration of tourism, event and commercial recreation enterprises; industry trends; consumer behavior with implications for entrepreneurs and managers; managing and marketing principles applied to industry; development of enterprise plan; assessment of financial feasibility.

**RPT 550 Planning and Evaluation of Recreation, Parks, and Tourism (3)**

*Prerequisite:* RPT 500. Planning and evaluation concepts, principles and applications to recreation, parks, and tourism; strategic planning models/processes; assessment of organization vision, mission, goals, programs, facilities, marketing, and financials; demographic, environment, and social analysis; needs-assessment techniques and data analysis.

**RPT 560 Current Practices in Parks, Recreation, and Leisure Services (1-3)**

*Prerequisite:* RPT 200 or consent of instructor. Topic to be specified in Class Schedule. Focus on new or updated technology, procedures, or methods; e.g., systems analysis, leisure education, tourism, legal implications, specific professional practices in parks, recreation, and leisure services. May be repeated for a total of 9 units when topics vary.

**RPT 570 Developing and Managing Resources in Nonprofit Agencies (3)**

*Prerequisite:* RPT 370 or consent of instructor. Framework for the administration of nonprofit agencies through volunteer recruitment, selection, and management. Principles of philanthropy and fundraising applied to management of nonprofit agencies. (Cross listed with PA 570. May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**RPT 605 Ecotourism Principles and Practices (3) [GE]**

*Prerequisite:* upper division standing. Nature-based, low impact tourism to preserve the environment and local communities. Assessment of adverse and beneficial tourism impacts on global environment, indigenous cultures and economy. Ecotourism market, providers, eco-resorts, community settings and regulators. The balance between promoting versus limiting ecotourism.

**RPT 640 Recreational Use of National Parks and Protected Areas (3)**

*Prerequisite:* upper division standing or consent of instructor. Introduction to concepts of conservation and preservation of national parks and other large ecosystem units, and managing visitor use. Emphasis on history, management principles, practices and current issues. National parks will be the primary focus, selected international protected areas will be included. (Cross listed with ENV 640. May not be repeated under alternate prefix.)

**RPT 650 Facilitating Leisure Wellness (3)**

*Prerequisite:* upper division standing. Examination of concepts, processes, and applications related to leisure and wellness. Origin, development, and expression of leisure in individual behavior and its relationship to facilitating wellness.

**RPT 660 Communications & Issues Recreation, Parks, and Tourism - GVAR (3)**

*Prerequisites:* RPT 200, 300, 400, and 500; internship eligibility; ENG 214 or equivalent with grade of C or better. Current issues and practices in recreation, park, and tourism. Oral and written communications in the profession. (ABC/NC grading only).

**RPT 670 Advanced Conference Event Planning and Management (3)**

*Prerequisite:* RPT 340 or consent of instructor. Application of advanced techniques for planning and managing conventions, trade shows, festivals, expositions, and other special events. Event strategic planning and marketing, ROI, and risk management. (Cross listed with HTM 670. May not be repeated under alternate prefix.)

**RPT 680 Directed Field Experience in Recreation, Parks, and Tourism (6)**

*Prerequisites:* Internship eligibility and consent of instructor. Directed field experience in program planning, supervision, and evaluation under direct supervision of qualified professional personnel. Understanding of leadership and group dynamics, programming, communication and writing skills, and application of current technology. [CSL may be available; consult index for page reference.]

**RPT 690 Directed Management Experience in Recreation, Parks, and Tourism (6)**

*Prerequisites:* Internship eligibility and consent of instructor. Directed management experience in facility, personnel, and fiscal management under direct supervision of qualified personnel. Understanding of legal and legislative foundations, and ethical principles and practices related to recreation, parks and tourism agencies. [CSL may be available; consult index for page reference.]

**RPT 699 Special Study (1-3)**

In-depth, individual, or group study projects in areas of personal/professional recreation and leisure interest under the guidance of a faculty member. Enrollment by petition. May be repeated for a total of 6 units. [CSL may be available; consult index for page reference.]

*Graduate Courses***RPT 700 Orientation and Professional Development in Recreation and Leisure Service (3)**

*Prerequisites:* graduate status and consent of instructor. Orientation to the recreation, parks, and tourism discipline; literature in the field; research writing; current issues and trends; comprehensive self-assessment professional skills and competencies.

**RPT 720 Developing Collaborative Leaders in Leisure Services (3)**

*Prerequisites:* graduate status and consent of instructor. Examination and development of leadership behaviors and principles associated with creating and/or guiding a leisure service organization's efforts to develop collaborative leaders. Emphasis on creating an organizational environment with a diverse work force where shared leadership is valued and practiced.

**RPT 730 Foundations of Leisure (3)**

*Prerequisites:* graduate status and consent of instructor. Interrelated concepts of time, work, and leisure and their impact on the leisure services profession and selected contemporary and future issues. Selected readings in cultural, historical, philosophical, behavioral, and social scientific literature related to the above.

**RPT 740 Leisure and Aging (3)**

Trends, concepts, challenges of aging related to leisure. Focuses on issues of lifespan, retirement, changing roles, and lifestyle adjustment. Applications and implications for leisure service delivery in a variety of clinical, custodial/long-term care, and community organizational settings.

**RPT 744 Nonprofits, Public Policy and Society (3)**

*Prerequisite:* graduate status or consent of instructor. Cross listed with P A 744. For course description, see P A 744. (May not be repeated under alternate prefix.)

**RPT 810 Research Methods in Recreation and Leisure Studies (3)**

*Prerequisites:* RPT 700 and RPT 730 or consent of instructor. Introduction to general research approaches, design, and methodology, with emphasis on research design and methods used in recreation and leisure studies. Review of pertinent literature. Gain practical experience with graduate level resources at SFSU.

**RPT 840 Startup and Sustainable Operations of Tourism, Event and Recreation Enterprises (3)**

*Prerequisite:* RPT/HTM 390 or consent of instructor. Paired with RPT 540. See RPT 540 for course description. Students who have taken RPT 540 may not take RPT 840 for credit.

**RPT 850 Human Resources Development in Leisure Studies (3)**

*Prerequisites:* consent of instructor and classified graduate status. Seminar in supervision including volunteer management, situational leadership: coaching and counseling personnel, performance appraisal, and personnel management systems.

**RPT 862 Management of Leisure Services (3)**

*Prerequisites:* RPT 500 or RPT 550 or equivalents, graduate status, and consent of instructor. Organization and management of services in public and private leisure service agencies. Legal issues, fiscal resources, management trends, political issues, community involvement, organizational effectiveness, and current problems and issues affecting leisure service agencies.

**RPT 870 Evaluation of Professional Growth and Leadership in Recreation and Leisure Services (1)**

*Prerequisites:* graduate status and consent of instructor. Refinement of professional development plan developed in RPT 700. Mentor new graduate student, assist with conduct of self-assessment, leadership and professional skills inventory, and development of career goals plan.

**RPT 880 Trends and Issues in Leisure Services (3)**

*Prerequisites:* RPT 700, RPT 720, and RPT 730 or consent of instructor. Intensive study of selected problems in recreation.

**RPT 890 Internship (3)**

*Prerequisite:* consent of instructor. Field experience in recreation in a medical, paramedical, or institutional setting under the supervision of specialists in recreation.

**RPT 890 Internship (4)**

*Prerequisite:* consent of instructor. Field experience in recreation in a medical, paramedical, or institutional setting under the supervision of specialists in recreation.

**RPT 891 Independent Research (1-3)**

*Prerequisites:* graduate adviser approval and RPT 710. Independent, original research investigation supervised by a graduate adviser. Continuous enrollment required for all students while completing the master's thesis. Does not count toward the 33-unit master's degree requirements. CR/NC grading only.

**RPT 895 Applied Research Project (3)**

*Prerequisite:* approved culminating experience forms, RPT 810 and RPT 880, with grades of B or better. Thorough investigation of recreation, parks or tourism issue or problem based on original analysis; writing of professional paper based on project results. CR/NC grading only.

**RPT 896 Directed Reading in Leisure Studies (3)**

*Prerequisites:* graduate adviser approval and RPT 880. Readings/tutorials focused on integrating information in recreation and leisure studies and significant related issues. Required of those M.S. candidates who have completed all required course work for the master's and need additional preparation for the comprehensive examination. May be repeated with departmental approval. Does not count toward the 33-unit master's degree requirements. CR/NC grading only.

**RPT 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the Master of Arts; RPT 710 and consent of graduate major adviser. An approved thesis of applied research in recreation. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**RPT 899 Special Study (3)**

*Prerequisites:* consent of graduate coordinator and supervising faculty member. Study is planned, developed, and completed under the direction of a member of the college. Open only to graduate students of demonstrated ability to do independent work. Enrollment by petition. May be repeated for a total of 6 units.

**RELIGIOUS STUDIES**

For other religious studies courses, see PHIL 105 and philosophy courses numbered 500-599.

*Undergraduate Courses***RELS 300 The Nature of Religious Experience (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Cross listed with PHIL 525. For course description, see PHIL 525. (May not be repeated under alternate prefix.)

**RELS 696 Directed Reading in Religious Studies (3)**

*Prerequisite:* RELS 300. Project to synthesize varying perspectives on religion and religious experiences.

**RUSSIAN***Undergraduate Courses*

Upper division courses are conducted in Russian, unless otherwise noted.

**RUSS 101 First Semester Russian (5) [GE]**

Instruction in understanding, speaking, reading, and writing Russian. (Page reference for Department of Foreign Language statement can be found in the Index.)

**RUSS 102 Second Semester Russian (5) [GE]**

*Prerequisite:* RUSS 101 or consent of instructor. Continuation of RUSS 101.



**RUSS 103 Third Semester Russian (5) [GE]**

*Prerequisite:* RUSS 102 or consent of instructor. Understanding, speaking, reading, and writing Russian at the intermediate level; Russian culture.

**RUSS 301 Reading and Grammar (3) [GE]**

*Prerequisite:* RUSS 103 or consent of instructor. Reading modern Russian. Development of vocabulary, syntax, and acquisition of idiomatic expressions. (Formerly RUSS 104.)

**RUSS 305 Advanced Grammar and Composition (3) [GE]**

*Prerequisite:* RUSS 301 or consent of instructor. Analysis of grammatical constructions. Exercises in composition.

**RUSS 306 Advanced Conversation and Composition (3) [GE]**

*Prerequisite:* RUSS 305 or consent of instructor. An intensive reading-conversation course.

**RUSS 307 Advanced Reading and Composition (3) [GE]**

*Prerequisite:* RUSS 305 or consent of instructor. Reading and composition designed to develop writing for advanced work. RUSS 325  
Practical Linguistics of Russian (3) [GE]

*Prerequisite:* RUSS 301 or consent of instructor. Application of linguistics to the study of Russian sound patterns and structures.

**RUSS 401 Russian Culture and Civilization in English (3)**

*Prerequisite:* ENGR 214 or consent of instructor. Major themes in the development of Russian culture and civilization from the 9th Century to the present; architecture, literature, folklore, customs, music, dance, theatre and cinema. [Taught in English.]

**RUSS 511 Russian Literature II in English (3)**

*Prerequisite:* ENGR 214 or consent of instructor. Representative works and movements of the Golden Age in Russian literature from the beginning of the 19th Century to the beginning of the 20th Century. [Taught in English.]

**RUSS 590 Topics in Russian Literature and Linguistics (3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**RUSS 610 Dostoevsky in English Translation (3)**

*Prerequisite:* ENGR 214 or equivalent or consent of instructor. Dostoevsky's seven important works. [Taught in English.] Paired with RUSS 810. Students who have completed RUSS 610 may not take RUSS 810 later for credit.

**RUSS 613 The Russian Novel: Pushkin, Lermontov, Gogol in English (3)**

*Prerequisite:* ENGR 214 or equivalent or consent of instructor. Analysis of late 18th and early 19th century Russian novels assessed from perspective of genre theory and Bakhtin's theory of novel. [Taught in English.] Paired with RUSS 813. Students who have completed RUSS 613 may not take RUSS 813 for credit.

**RUSS 615 The Russian Avant-Garde (3)**

*Prerequisites:* ENGR 214 or equivalent or consent of instructor. Creativity in Russian literature, arts, cinema, society between 1905-1930 in context of Russian traditions and Western European parallels. Taught in English. Paired with RUSS 815. Students who have completed RUSS 615 may not take RUSS 815 for credit.

**Graduate Courses**

*Prerequisite for each graduate course in Russian:* admission to Russian program or consent of instructor.

**RUSS 699 Special Study (1-3)**

*Prerequisites:* consent of department chair and instructor. Special topics in Russian. Written projects requiring critical analysis and interpretation of linguistic or literary problems. Material adapted to individual needs and interests. May be repeated.

**RUSS 810 Dostoevsky in English Translation (3)**

*Prerequisite:* consent of instructor. For course description, see RUSS 610. Paired with RUSS 610. Students who have completed RUSS 810 may not take RUSS 610 for credit.

**RUSS 813 The Russian Novel: Pushkin, Lermontov, Gogol in English (3)**

*Prerequisite:* graduate status or consent of instructor. For course description, see RUSS 613. Paired with RUSS 613. Students who have completed RUSS 813 may not take RUSS 613 for credit. Graduate students must complete reading and writing requirements in Russian.

**RUSS 815 The Russian Avant-Garde (3)**

*Prerequisites:* ENGR 214 or equivalent and graduate standing or consent of instructor. For course description, see RUSS 615. Paired with RUSS 615. Students who have completed RUSS 815 may not take RUSS 615 for credit. Taught in English.

**RUSS 820 Seminar: 19th Century Literature (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**RUSS 830 Seminar: Russian Modernism (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**RUSS 880 Seminar: Special Topics (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**RUSS 899 Special Study (1-3)**

*Prerequisite:* consent of instructor. Study is planned, developed, and completed under the direction of a member of the department faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**SANSKRIT****Undergraduate Courses****SNK 699 Special Study (1-3)**

Study available for previous Sanskrit students who wish to undertake additional work in the language and literature in some specialized area of interest not offered in regularly scheduled classes. Work is planned and completed under direction of a faculty member.

**SCIENCE****Undergraduate Courses****SCI 102 Science Concepts: Statics (1)**

*Prerequisites:* MATH 227, PHYS 220; concurrent enrollment with ENGR 102. Student-center discussion and problem solving designed to promote understanding of key concepts of statics and enhance student success in ENGR 102. Limit of 4 units of science concepts courses allowed toward baccalaureate degree.

**SCI 109 Mathematics Concepts: College Algebra and Trigonometry (1)**

*Must be taken concurrently with MATH 109.* Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in MATH 109. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 111 Science Concepts: Physics I (1)**

*Must be taken concurrently with PHYS 111.* Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in PHYS 111. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 115 Science Concepts - Chemistry I (1)**

*Prerequisite:* concurrent enrollment in CHEM 115. Student-centered discussion and problem-solving. Designed to promote understanding of key concepts and enhance student success in the concurrent chemistry course. Limit of 4 units of any combination of SCI 235 and Science Concepts courses.

**SCI 121 Science Concepts: Physics II (1)**

*Must be taken concurrently with PHYS 121.* Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in PHYS 121. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 201 Science Concepts: Dynamics (1)**

*Prerequisite:* ENGR 102; concurrent enrollment with ENGR 201. Student-centered discussion and problem solving designed to promote understanding of key concepts of dynamics and enhance student success in ENGR 102. Limit of 4 units of science concepts courses allowed toward baccalaureate degree.

**SCI 205 Science Concepts: Electric Circuits (1)**

*Prerequisite:* PHYS 230. *Must be taken concurrently with ENGR 205.* Student-centered discussion and problem-solving section. Designed to promote understanding of key concepts of circuit analysis and enhance student success in ENGR 205. Limit of 4 units of any combination of science, math, and engineering concepts courses allowed toward the baccalaureate degree.

**SCI 215 Science Concepts - Chemistry II (1)**

*Prerequisite:* concurrent enrollment in CHEM 215. Student-centered discussion and problem-solving. Designed to promote understanding of key concepts and enhance student success in the concurrent chemistry course. Limit of 4 units of any combination of SCI 235 and Science Concepts courses.

**SCI 220 Science Concepts: Physics with Calculus I (1)**

*Prerequisite:* concurrent enrollment in PHYS 220. Designed to promote understanding of key concepts and enhance student success in PHYS 220. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 226 Mathematics Concepts: Calculus I (1)**

*Must be taken concurrently with MATH 226.* Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in MATH 226. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 227 Math Concepts: Calculus II (1)**

*Prerequisite:* Must be taken concurrently with MATH 227. Student centered discussion and problem solving section designed to promote understanding of key concepts and enhance student success in MATH 227. (Limit of four units in any combination of SCI 235, SCI Science Concepts, and SCI Math Concepts toward the baccalaureate degree.) SCI 230  
Science Concepts: Biology I (1)

*Prerequisite:* concurrent enrollment in BIOL 230. Student-centered discussion and problem-solving. Designed to promote understanding of key concepts and enhance student success in the concurrent biology course. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses.

**SCI 231 Science Preparatory I - Foundations (2)**

Enhance students' knowledge in the foundational core of biology, chemistry, physics, and mathematics. Covers basic concepts, tools, and approaches.

**SCI 232 Science Preparatory II - Study Skills (2)**

Emphasis on increasing students' study skills in the context of basic science coursework. Writing and communication skills addressed.

**SCI 233 Science Preparatory III - Projects (2)**

Builds upon the skills developed in SCI 231 and 232. Develop and work on individual project with the instructors to put these skills in action. Explore a variety of careers in various science fields.

**SCI 234 Science Concepts: Physics with Calculus II (1)**

*Prerequisites:* PHYS 220 and MATH 227. Concurrent enrollment with PHYS 230 and 232. Student-centered discussion and problem-solving. designed to promote understanding of key concepts of electromagnetism and enhance student success in PHYS 230. Limit of 4 units of science concepts courses allowed toward baccalaureate degree.

**SCI 235 Science Concepts (1-2)**

Must be taken concurrently with BIOL 230 or BIOL 240, CHEM 115 or CHEM 215. Preference given to students in Health Career Opportunity Program. Designed to enhance student success in introductory biology and chemistry courses by emphasizing problem solving and scientific writing skills. May be repeated once for a maximum of 4 units. (Formerly A U 235.)

**SCI 239 Introduction to Health Professions (2)**

Introduction to the broad array of health professions, helping students make a more informed health career choice. Activities include talks from guest speakers representing various health professions, small group activities, and student projects. Intended for freshmen and sophomores.

**SCI 240 Science Concepts: Biology II (1)**

*Prerequisite:* concurrent enrollment in BIOL 240. Student-centered discussion and problem-solving. Designed to promote understanding of key concepts and enhance student success in the concurrent biology course. Limit of 4 units of any combination of SCI 235, Science Concepts, and Mathematics Concepts courses.

**SCI 320 Science Concepts: Quantitative Analysis (1)**

Must be taken concurrently with CHEM 320. Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in CHEM 320. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 333 Science Concepts: Organic Chemistry I (1)**

Must be taken concurrently with CHEM 233 (formerly CHEM 333). Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in CHEM 333. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 335 Science Concepts: Organic Chemistry II (1)**

Must be taken concurrently with CHEM 335. Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in CHEM 335. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 340 Science Concepts: Biochemistry I (1)**

Must be taken concurrently with CHEM 340. Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in CHEM 340. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 341 Science Concepts: Biochemistry II (1)**

Must be taken concurrently with CHEM 341. Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in CHEM 341. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 350 Science Concepts: Cell Biology (1)**

Must be taken concurrently with BIOL 350. Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in BIOL 350. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 355 Science Concepts: Genetics (1)**

Must be taken concurrently with BIOL 355. Student-centered discussion and problem solving section. Designed to promote understanding of key concepts and enhance student success in BIOL 355. Limit of 4 units of any combination of: SCI 235, Science Concepts, and Mathematics Concepts courses allowed toward the baccalaureate degree.

**SCI 560 Science Writing (3) [GE]**

*Prerequisites:* ENG 214 and upper division standing. Principles of research, writing, and editing of technical documents and articles for the public understanding of science. Students write publication-quality articles for possible inclusion in Intersci, the journal of the College of Science and Engineering.

**SCI 614 Graduate Writing Skills (3)**

*Prerequisite:* graduate status. Enrollment priority given to College of Science and Engineering students. Designed to increase the writing proficiency of graduate students. May not be used to meet MS GAP requirements. CR/NC grading only.

**SCI 652 SFSU Science Partners K-12 Schools (4)**

*Prerequisite:* completion of at least one upper division course in your major field of study, and instructor consent. Introduction to science teaching and learning. Students engage in K-12 classroom teaching, examine their own understanding of science, discuss science education literature, and analyze science lessons and student learning. Class work, 2 units; field work, 2 units. [CSL may be available; consult index for page reference.]

**SCI 693 Cooperative Education Program (1-12)**

*Prerequisite:* consent of instructor. Supervised employment in academically relevant fields of study. Objectives are career development, occupational experience, and educational subsidy. Contact the Cooperative Education Office for more information. May be repeated for a total of 24 units with consent of major adviser.

**SCI 695 Health Professions Colloquium (2)**

*Prerequisite:* BIOL 230/240, CHEM 115/215. Preference given to students in Health Career Opportunity Program. Designed to prepare juniors and seniors for successful application to health professions schools. Application preparation, mock interviews, standard test preparation, oral presentations of journal articles. May be repeated for a total of 4 units.

**Graduate Courses****SCI 750 Science Teaching for Scientists I (2)**

*Prerequisite:* consent of instructor. May be taken concurrently with SCI 751. Provides an introduction to issues in science teaching and learning and the larger context of K-12 science education. (May be repeated for a total of 4 units.) (Plus-minus letter grade only.)

**SCI 751 Fieldwork: Science Teaching for Scientists I (2)**

*Prerequisite:* consent of instructor; completion of or concurrent enrollment in SCI 750. Field work component that accompanies SCI 750 seminar. Fieldwork in a variety of settings from K-12 science classrooms, TA appointment in SFSU College of Science and Engineering course, or other science education setting. May be repeated for a total of 4 units for degree credit. (CR/NC grading only.)

**SCI 793 Cooperative Education Program (1-3)**

*Prerequisite:* graduate status and consent of instructor. Supervised employment in academically relevant fields of study. Objectives are career development, occupational experience, and educational subsidy. Contact the Cooperative Education Office for more information. May be repeated for a total of 3 units.

**SCI 850 Science Teaching for Scientists II (2)**

*Prerequisite:* SCI 750; consent of instructor. May be taken concurrently with SCI 851 (fieldwork component). Explores issues in science and learning and the larger context of K-12 science education. May be repeated for a total of 4 units for degree credit.

**SCI 851 Fieldwork: Science Teaching for Scientists II (2)**

*Prerequisite:* SCI 750; consent of instructor. Must be taken concurrently with SCI 850. Fieldwork component that accompanies SCI 850 seminar. Fieldwork can be in a variety of settings from K-12 science classrooms, TA appointment in course in SFSU College of Science and Engineering, or other science education settings. May be repeated for a total of 4 units. CR/NC grading only.

**SECONDARY EDUCATION***Undergraduate Courses***S ED 640 Supervised Observation/Participation in Public Schools (3)**

*Must be taken concurrently with S ED 651.* A program of observation and participation in public schools under the guidance of a university supervisor, including regular meetings for the analysis of field experiences. CR/NC grading only. [CSL may be available; consult index for page reference.]

**S ED 640 Supervised Observation/Participation in Public Schools (1)**

*Prerequisite:* admission to Single Subject Credential, CBEST. *Must be taken concurrently with S ED 751.* Observation and participation under the guidance of a university supervisor; regular meetings for the analysis of field experiences. CR/NC grading only. [CSL may be available; consult index for page reference.]

**S ED 660 Student Teaching--Single Subject (1-12)**

Teaching experience in the public school under guidance of a university supervisor with the cooperation of a supervising teacher. Open only to candidates formally approved by the Secondary Education Department. Requires a total of 12 units.

**S ED 698 Special Topics in Secondary Education (1-5)**

*Topic to be specified in Class Schedule.* May substitute for credential requirement only when approved in advance by adviser.

**S ED 699 Special Study (1-3)**

An intensive study of a particular problem in education under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open to regularly enrolled students only.

*Graduate Courses***S ED 701 Social, Cultural, and Historical Foundations of Education (3)**

*Prerequisites:* upper division standing and consent of instructor. *Intended for Multiple and Single Subject Credential candidates.* Examines, from a critical perspective, historical, social, and cultural foundations for theoretical frameworks and pedagogical practices for the classroom.

**S ED 720 Literacy Across Content Areas (3)**

Instructional strategies, grounded in theory and research, which help secondary school students use reading and writing to learn in all subject matter areas. Emphasis on supporting literacy development of culturally and linguistically diverse learners.

**S ED 751 Classroom Environment (3)**

*Prerequisite:* admission to Single Subject Credential program. *Must be taken concurrently with S ED 640.* Creating and maintaining humane and stimulating learning environments and responding to social and cultural changes shaping student's lives. Additional emphasis on motivation and management. [CSL may be available; consult index for page reference.]

**S ED 752 Professional Perspectives and Practices (3)**

*Prerequisite:* S ED 751. *Must be taken concurrently with S ED 660.* Integrating, reflecting, and building knowledge and skills for teaching all students are the major thrusts. Professional obligations and growth are also addressed.

**S ED 759 Curriculum and Instruction I (3)**

*Prerequisite:* admission to Single Subject Credential program or consent of instructor. *Content area to be specified in Class Schedule.* Principles and practices for teaching secondary subjects, including planning of content and instruction with consideration of student learning and state standards.

**S ED 761 School Mathematics: Problem Solving (3)**

*Prerequisite:* consent of instructor. Cross listed with E ED 761. For course description, see E ED 761. (May not be repeated under alternate prefix.)

**S ED 769 Curriculum and Instruction II (3)**

*Prerequisite:* satisfactory completion of S ED 759. *Must be taken concurrently with S ED 660, Student Teaching.* *Subject area to be specified in Class Schedule.* Principles and practices for teaching secondary subjects to all learners, with additional emphases on assessment, reflective practice, and technology.

**S ED 790 Second Language Development (3)**

*Prerequisite:* S ED 751. Issues related to language, culture, and literacy development for second language learners. The role of first language competencies in the development of second language. Treatment of second language acquisition theories, instructional strategies, and pedagogical techniques. [CSL may be available; consult index for page reference.]

**S ED 796 Analyzing Cases of Mathematics Teaching (3)**

Cross listed with E ED 796. For course description, see E ED 796. (May not be repeated under alternate prefix.)

**S ED 800 Adolescent Development (3)**

Covers learning theories, current social issues, and adolescent behaviors. Five areas of adolescent development (emotional, physical, moral, social, and cognitive) are examined as each pertains to middle and high school teaching and student learning.

**S ED 807 Leadership Development in Mathematics Education (3)**

*Prerequisite:* consent of instructor. Cross listed with E ED 807. For course description, see E ED 807. (May not be repeated under alternate prefix.)

**S ED 850 Research Seminar: Critical Issues in Secondary Education (3)**

*Prerequisites:* graduate standing in secondary education, ISED 797, and approval of first reader. Examining theory and investigating practice in relation to teaching and learning in the secondary school.

**S ED 856 Assessing Mathematical Thinking (3)**

*Prerequisite:* consent of instructor. Cross listed with E ED 856. For course description, see E ED 856. (May not be repeated under alternate prefix.)

**S ED 895 Field Study (3)**

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**S ED 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy and approval of graduate major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**S ED 899 Special Study (1-3)**

An intensive study of a particular problem in education under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open only to regularly enrolled graduate students.

**SEXUALITY STUDIES***Undergraduate Courses***SXS 110 Sexuality in Society (3)**

Introductory exploration of sexuality in its social context. Critical reflection on conventional and individualizing understandings of sexuality. Includes research articles, documentary films, and mainstream television and magazines. (Cross listed with SOC 110. May not be repeated under alternate prefix.)

**SXS 300 Introduction to Human Sexuality (3)**

*Prerequisite:* upper division standing or consent of instructor. The field of human sexuality studies.

**SXS 301 Perspectives in Gay, Lesbian, Bisexual, and Transgender Studies (3) [GE]**

*Prerequisite:* ENG 214. Lesbian, gay, bisexual, and transgender studies as a field of knowledge. Cultural, social, political, and personal aspects of gay, lesbian, bisexual, and transsexual issues.

**SXS 314 Gay, Lesbian, and Bisexual History (3) [GE]**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. History of gays, lesbians, and bisexuals

**SXS 320 Sex and Relationships (3) [GE]**

Cross listed with PSY 320. For course description, see PSY 320. (May not be repeated under alternate prefix.)

**SXS 350 Selected Issues in Human Sexuality (1-3)**

*Topic to be specified in Class Schedule.* Examination and analysis of selected topics in human sexuality. May be repeated when topics vary.

**SXS 369 Philosophical Issues in Sexuality (3) [GE]**

Cross listed with PHIL 369. For course description, see PHIL 369. (May not be repeated under alternate prefix.)

**SXS 380 Coloring Queer: Imagining Communities (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ETHS 380. For course description, see ETHS 380. (May not be repeated under alternate prefix.)

**SXS 400 Variations in Human Sexuality (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Variations in sexuality: sexual identity, relationships, behavior, and fantasy; identification of personal and social problems associated with varied sexual lifestyles. (Cross listed with PSY 450/SOC 400. May not be repeated under alternate prefix.)

**SXS 402 Advanced Topics in Bisexual, Gay and Lesbian Studies (3)**

*Prerequisite:* SXS 301 or consent of instructor. Social, cultural, economic, historical, and political patterns concerning the contemporary social lives and intimate relationships of bisexual, gay and lesbian people.

**SXS 405 Queer Art History (3)**

*Prerequisite:* ART 201 or ART 202 or equivalent and consent of instructor. Cross listed with ART 403. For course description, see ART 403. (May not be repeated under alternate prefix.)

**SXS 421 Homophobia and Coming Out (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with S S 421. For course description, see S S 421. (May not be repeated under alternate prefix.)

**SXS 436 The Development of Femaleness and Maleness (4)**

*Prerequisites:* PSY 371, upper division standing, or consent of instructor. Cross listed with PSY 436. For course description, see PSY 436. (May not be repeated under alternate prefix.)

**SXS 438 Culture and Sex in East Asia (3) [GE]**

*Prerequisites:* ANTH 120 and upper division standing or consent of instructor. Cross listed with ANTH 415. For course description, see ANTH 415. (May not be repeated under alternate prefix.)

**SXS 455 Sex, Power and Politics (3)**

Cross listed with S S 455. For course description, see S S 455. (May not be repeated under alternate prefix.)

**SXS 456 Psychology of Human Sexual Behavior (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with PSY 456. For course description, see PSY 456. (May not be repeated under alternate prefix.)

**SXS 458 Introduction to Transgender Studies (3)**

*Prerequisite:* ENG 214 or equivalent. Examines transsexuality, drag, transvestitism, and butch-femme lesbianism to explore highly variable relationships between sexuality, gender, desire, and identity.

**SXS 469 Sex and Morality (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with PHIL 445. For course description, see PHIL 445. (May not be repeated under alternate prefix.)

**SXS 470 Sex and the Net (3) [GE]**

*Prerequisite:* SXS 300 or consent of instructor. Social, psychological, and educational aspects of sexuality and the Internet.

**SXS 500 Values Clarification in Sexuality (3) [GE]**

*Prerequisite:* BIOL 330, HED 320 or CFS 321 or equivalent. Cross listed with H ED 500. For course description, see H ED 500. (May not be repeated under alternate prefix.)

**SXS 550 Field Service in Human Sexuality Studies (1-3)**

*Prerequisites:* nine units of SXS courses or consent of instructor. Supervised field service performed in on-campus research, instructional, or service units or off-campus agencies involved in human sexuality medical, social, and psychological services. May be repeated.

**SXS 551 Queer Literatures and Media (3) [GE]**

*Prerequisite:* ENG 214 or equivalent, or consent of instructor. Cross listed with WGS 551. For course description, see WGS 551. (May not be repeated under alternate prefix.)

**SXS 567 Cross-cultural Aspects of Sex and Gender (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ANTH 569. For course description, see ANTH 569. (May not be repeated under alternate prefix.)

**SXS 569 Sex and the Law (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Cross listed with PHIL 455. For course description, see PHIL 455. (May not be repeated under alternate prefix.)

**SXS 601 Sexuality, Ethnicity, and Health (2-3)**

*Prerequisite:* SXS 300 or consent of instructor. Overview of the relationships between sexuality, ethnicity, and health. Ethnic and cultural differences that affect sexuality, behavior, risk and resiliency, and result in health disparities.

**SXS 605 Sexual Violence (3)**

*Prerequisite:* upper division standing. Covers a breadth of topics relating to sexual violence, concentrating on understanding the origins and consequences of various forms of sexual violence through the life course, and exploring how sex and sexuality can be used as tools to control individuals, groups of people, communities and states. Paired with SXS 705. Students who have completed SXS 705 may not take SXS 605 for credit.

**SXS 633 Gay Love in Literature (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Cross listed with ENG 633. For course description, see ENG 633. (May not be repeated under alternate prefix.)

**SXS 635 Queer Masterpieces (3)**

*Prerequisite:* ENG 214 or equivalent. Gay, lesbian, bisexual, and transgender issues in the context of the Western tradition. Examination of how these issues shape and are in turn shaped by poets, novelists, and visual/performing artists. (Cross listed with CHS 635. May not be repeated under alternate prefix.)

**SXS 651 Fieldwork in Gay/Lesbian/Bisexual Community Service (3)**

*Prerequisite:* ENG 214. Intern or supervised volunteer in religious, health, communications, political, recreation agencies in gay/lesbian/bisexual communities. CR/NC grading only. May be repeated for a total of 6 units.

**SXS 667 Lesbian, Gay, Bisexual, Transgender, and Queer Cultures and Society (4) [GE]**

*Prerequisite:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Cross listed with SOC 467. For course description, see SOC 467. (May not be repeated under alternate prefix.)

**SXS 678 Disability and Sexuality (3) [GE]**

*Prerequisite:* SXS 300 or consent of instructor. Disability and sexuality through individual, societal, cultural, and political lenses.

**SXS 680 Colloquium in Human Sexuality (3)**

*Prerequisite:* completion of the human sexuality minor core or consent of instructor. Human sexuality from an interdisciplinary perspective presented by faculty, advanced students, and scholars outside the program. Forum for sharing ideas, exploring original concepts, and debating issues.

**SXS 685 Projects in the Teaching of Human Sexuality Studies (1-4)**

*Prerequisites:* consent of instructor and completion of relevant course (or equivalent) with grade of B or better. Students serve as instructional aides in order to enrich their knowledge of the subject and the general processes of learning and teaching. Will help develop course materials, plan and review course structure and activities, and provide assistance to students in class projects and fieldwork. May be repeated for a total of 4 units.

**SXS 699 Special Study (1-3)**

*Prerequisites:* consent of instructor and program director. Supervised study of a particular issue selected by the student.

**Graduate Courses****SXS 701 Sexual Cultures, Sexual Identities (3)**

*Prerequisite:* graduate status or consent of instructor. Concepts of "sexual culture" and "sexual identity" in history and across cultures. (Cross listed with ANTH 701. May not be repeated under alternate prefix.)

**SXS 702 Sexuality in Historical Perspective (3)**

*Prerequisites:* graduate status and consent of instructor. Traces the growing scholarship on the historical study of sexuality primarily in the U.S. Introduces students to not only a variety of historical studies on sexuality, but also assesses the validity and value of the work.

**SXS 703 Lesbian, Gay, Bisexual, Transgender Sexuality and Health (3)**

*Prerequisite:* graduate status or consent of instructor. Relationships between lesbian, gay, bisexual, and transgender (LGBT) sexuality and health: cultural differences that affect sexuality, behavior, risk, and resiliency, and contribute to health disparities.

**SXS 704 Human Sexuality and Language (3)**

*Prerequisites:* graduate standing or consent of instructor. Seminar covers research on sexuality and language with emphasis on the role of language in the social construction of sexual meanings, sexual identities and sexual relationships in diverse cultures and linguistic communities.

**SXS 705 Sexual Violence (3)**

*Prerequisites:* graduate standing or consent of instructor. Paired with SXS 605. For course description, see SXS 605. Students who have completed SXS 705 may not take SXS 605 for credit.

**SXS 723 Teaching Internship in Human Sexuality Studies (3)**

*Prerequisites:* graduate status, consent of instructor, completion of 15 units minimum. Individual projects under faculty supervision undertaken in conjunction with teaching assignments in undergraduate courses. Research and reports on the aims and methods of teaching human sexuality studies to undergraduates. May be repeated for a total of 6 units.

**SXS 724 Research Internship in Human Sexuality Studies (3)**

*Prerequisites:* graduate status and consent of instructor. Study, discussion, and evaluation of principles of human sexuality research, theory, and method. May be repeated for a total of 6 units.

**SXS 750 Seminar in Graduate Human Sexuality Studies (3)**

*Topic to be specified in Class Schedule.* Examines trends, data, methodology, and current research in human sexuality studies. May be repeated when topics vary.

**SXS 770 Sexuality and Public Policy (3)**

*Prerequisite:* graduate standing or consent of instructor. Examination of the development of sexuality-related policy in the United States. The framework of historical debates and their impact on current policy will be discussed. Legal, ethical, political, fiscal, and other structural considerations will be addressed. The role of academic theory and research in the creation of public policy will be considered.

**SXS 771 Research Seminar in Sexuality and Public Policy (3)**

*Prerequisite:* graduate standing or consent of instructor. Focus on the historical, theoretical and institutional frameworks of sexuality policy in the United States. The concept of "sexual citizenship" will be examined; who possesses it, who does not, and who defines it, as well as examining the processes by which that definition is challenged and changed. Issues of scale (local, regional, national), ethics and strategies in policy-making will be discussed.

**SXS 794 Community Service Learning in Sexuality Studies (3)**

*Prerequisite:* graduate standing or consent of instructor. Field experience in community based organizations working with issues relating to sexuality. [CSL may be available; consult index for page reference.]

**SXS 799 Issues in Sexuality Studies (3)**

*Prerequisite:* graduate standing or consent of instructor. Exploration of research topics for thesis projects; theoretical issues relating to research topics and empirical research. Provides a practical forum to discuss all research issues.

**SXS 800 Sociocultural Foundations in Human Sexuality (3)**

*Prerequisite:* graduate standing. Current sociocultural knowledge concerning sexual cultures and sexual behavior. Theories of individual and cultural difference in sexuality.

**SXS 801 Biological and Psychological Foundations of Human Sexuality (3)**

*Prerequisite:* graduate status. Current biological knowledge concerning sexual differentiation from conception through puberty, including sexual response and sexual identity. Psychological theories of sexual behavior and its development, courtship, sexual coercion, and variations in sexual behavior.

**SXS 805 Sexuality Education and Policy (3)**

*Prerequisite:* graduate status or consent of instructor. Historical and philosophical underpinnings of sexuality education in the U.S.; major pedagogical theories and practices at elementary, secondary, and post-secondary levels. Education and social policy considerations. (Cross listed with EDUC 805. May not be repeated under alternate prefix.)

**SXS 810 Seminar in Sexual Identity and Communication (4)**

*Prerequisite:* graduate status or consent of instructor. Cross listed with COMM 725. For course description, see COMM 725. (May not be repeated under alternate prefix.)

**SXS 881 Research Methods in Human Sexuality Studies (3)**

*Prerequisite:* graduate status or consent of instructor. Interdisciplinary examination of multiple approaches to human sexuality research and social ethics. (Formerly SXS 891.)

**SXS 882 Research Design in Human Sexuality Studies (3)**

*Prerequisite:* SXS 881 and graduate standing or consent of instructor. Development, design, and implementation of the research project for completion of the masters thesis. (Formerly SXS 897.)

**SXS 883 Applied Quantitative Methods in Sexuality Studies (3)**

*Prerequisite:* graduate standing. Introduction to quantitative methods as they are applied to the social scientific study of sexuality.

**SXS 890 Professional Development (3)**

*Prerequisite:* graduate status in human sexuality studies or consent of instructor. Apply the multidisciplinary perspective of human sexuality studies to on-going projects, and discuss ethical concerns with regard to research in human sexuality and how current work can further professional careers.

**SXS 894 Creative Work Project (3)**

*Prerequisites:* advancement to candidacy and approval of graduate advisor. An original creative work project. Projects must be described in a written document that summarizes the project's relation to other work in the area, its rationale, its significance, and its creative methodologies. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**SXS 895 Research Project in Human Sexuality Studies (3)**

*Prerequisites:* SXS 800, SXS 801, SXS 891, and consent of graduate adviser. Research methodology and supervised research into topics and problems in human sexuality studies culminating in oral and written presentations. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**SXS 896 Directed Reading (3)**

*Prerequisite:* consent of graduate adviser. Intensive directed reading in human sexuality studies under the supervision of a faculty member.

**SXS 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy and approval of graduate major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**SXS 899 Special Study (1-4)**

*Prerequisite:* graduate status or consent of instructor. Study is planned, developed, and completed under the direction of a member of the program faculty. Open only to graduate students who have demonstrated the ability to do independent work. Enrollment by petition. May be repeated for a total of 12 units.

**SOCIAL SCIENCE***Undergraduate Courses***S S 104 Introduction to World Affairs (3) [GE]**

Description and analysis of forces and events on-going in the world. Contemporary problems; development, nationalism, revolution, war and peace, and imperialism as they relate to overall patterns in international affairs. (Cross listed with I R 104. May not be repeated under alternate prefix.)

**S S 105 Individual, Society, and Culture: Their Interaction in America (3) [GE]**

How do individuals develop and groups interact in a culturally, ethnically, and racially diverse society? What can be learned from psychology, anthropology, and sociology, from ethnic studies, history, and linguistics? Where does an individual's life and ethnic/racial experience fit in?

**S S 106 Capitalism, Socialism, and Democracy: Introduction to Political Economy (3) [GE]**

Political-economic approaches to the analysis of questions each society must solve: governance, production, allocation, distribution, freedom, and equity. The development of contemporary market vs. non-market organization, political direction of economic activity, and political-economic struggles. (Cross listed with PLSI 106.)

**S S 300 Social Sciences Core I (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. An interdisciplinary approach to the scientific study of human social behavior. Exploration of the similarities and differences between the social science disciplines of anthropology, psychology, and sociology with respect to their subject matter, concepts, models, and research approaches.

**S S 301 Social Sciences Core II (3) [GE]**

*Prerequisite:* upper division standing. An interdisciplinary social science approach to the disciplines of history, geography, economics and political science with regard to their subject matter, concepts, models, and research approaches. Considers the prospects and problems of interdisciplinary vs. disciplinary social analysis.

**S S 343 Women and Work (3)**

*Prerequisite:* upper division standing or consent of instructor. Position and roles of women in the productive activities of society--paid and unpaid. Patterns of household and work place employment, discrimination in pay and working conditions, relevant laws, explanations for the evolution of patterns. (Cross listed with ANTH/LABR 343.)

**S S 345 Gender and the Law (3)**

*Prerequisite:* ENG 114 or equivalent. Cross listed with WGS 534. For course description, see WGS 534. (May not be repeated under alternate prefix.)

**S S 360 The Individual in Modern Society (3)**

*Prerequisite:* upper division standing or consent of instructor. Concepts, theories, and data of the social sciences and related areas of knowledge concerned with understanding the status, problems, and possibilities of the individual in modern society.

**S S 401 Transformed World, Transformed Social Science (3)**

*Prerequisite:* upper division standing or consent of instructor. *Topic to be specified in Class Schedule.* Contemporary developments in social science and social analysis that reflect dramatic changes in the structure and operation of society, changes which are forcing reconceptualization of existing thought and information in social science.

**S S 402 Contemporary Theories and Master Theorists in Social Science (3)**

*Prerequisite:* upper division standing or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**S S 410 Perspectives on American Culture (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with AMST 300. For course description, see AMST 300. (May not be repeated under alternate prefix.)

**S S 421 Homophobia and Coming Out (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Sources, forms, and history of homophobia; processes and consequences of coming out as related to gender, ethnicity, religion, age, socio-economic background, and physical ability. (Cross listed with SXS 421. May not be repeated under alternate prefix.)

**S S 455 Sex, Power, and Politics (3)**

*Prerequisite:* upper division standing or consent of instructor. Examines how the state and social institutions define gender roles, regulate sexual practices, and police sex as a means of social control. Issues include morality campaigns, AIDS/STD's, pedophilia, pornography, sodomy, abortion, etc. (Cross listed with SXS 455. May not be repeated under alternate prefix.)

**S S 460 Childhood, Nature, and Society (3)**

*Prerequisite:* ENG 214 or equivalent; upper division standing. Exploration of the relationship between childhood and nature in pre-through-post industrial societies using theory, research and methods from the social sciences.

**S S 469 American Childhoods: Past and Present (3) [GE]**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST 469. For course description, see HIST 469. (May not be repeated under alternate prefix.)

**S S 501 Latin America: The National Period (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST/ANTH 501 and LTNS 501 [formerly RAZA 501]. For course description, see HIST 501. (May not be repeated under alternate prefix.)

**S S 520 Globalization and Development (4) [GE]**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Cross listed with I R 520. For course description see I R 520. (May not be repeated under alternate prefix.)

**S S 525 Diversity in the Workplace (3) [GE]**

*Prerequisite:* upper division standing. Cross listed with LABR/ANTH 525. For course description, see LABR 525. (May not be repeated under alternate prefix.)

**S S 540 The Rich and the Poor Nations (4) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Cross listed with I R 540. For description, see I R 540. (May not be repeated under alternate prefix.)

**S S 544 Women in the World (4) [GE]**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Cross listed with I R/PLSI 544. For course description, see I R 544. (May not be repeated under alternate prefix.)

**S S 550 Social Change in Modern Latin America (3) [GE]**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST 550. For course description, see HIST 550. (May not be repeated under alternate prefix.)

**S S 680 Field Course in Social Science (1-6)**

Topic and units to be specified in Class Schedule. May be repeated for a maximum of 9 units with instructor approval.

**S S 681 Community Service Learning in the Schools (3) [GE]**

*Prerequisite:* upper division standing. Projects in history and social studies learning at the K-12 level. Meets state early field experience requirement for multiple and single subject credential program admissions. May be repeated for a total of 6 units. (Cross listed with HIST 681.) [CSL may be available; consult index for page reference.]

**S S 699 Special Study (1-3)**

*Prerequisites:* written consent of instructor, major adviser, and department chair. Supervised study of a particular problem selected by the student.

**Graduate Courses****S S 720 Seminar in Modernization (3)**

Topic to be specified in Class Schedule. May be repeated 3 times when topics vary.

**S S 736 International Development and Globalization (3)**

*Prerequisite:* Graduate status. Cross listed with IR 736. See IR 736 for course description. (May not be repeated under alternate prefix.)

**S S 897 Individual Research (3)**

*Prerequisite:* S S 710 and consent of graduate adviser, faculty supervisor, and department chair. An exercise in empirical inquiry designed and executed by the individual student under direction of a faculty member. May be repeated for a total of 6 units. S S 898 Master's Thesis (3)

*Prerequisite:* advancement to candidacy for the master's degree and consent of candidate's committee chair. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**S S 899 Special Study (3)**

Study is planned, developed, and completed under the direction of a member of the faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition containing consent of graduate adviser, supervising faculty member, and department chair.

**SOCIAL WORK****Undergraduate Courses**

All undergraduate social work courses, except S W 350 and S W 301, are restricted to junior and senior majors during registration. Registration is opened to non-majors during the first two weeks of classes, at which time students may enroll with consent of instructor and on a space available basis.

**S W 300 U.S. Social Welfare: Past, Present, and Future (3)**

*Prerequisites:* junior standing; successful completion of introductory courses in human biology, economics, psychology, sociology, or consent of instructor. Welfare institution viewed as societal responses to certain social needs. Social work profession and its involvement in the delivery of welfare services.

**S W 301 U.S. Social Welfare II: Problems, Policies, and Programs - GVAR (3)**

*Prerequisite:* ENG 214 with a grade of C- or better; S W 300, or consent of instructor. Social problems in relation to policies and programs that determine available services. Input of government, voluntary associations, and consumer groups. (ABC/NC only.)

**S W 302 Introduction to Social Service Organizations (3)**

*Prerequisites:* junior standing; successful completion of introductory courses in human biology and economics. Function, structure, and activities of social service organizations in a multi-racial, multi-ethnic urban environment. Classwork, 2 units; laboratory, 1 unit.

**S W 350 Services to Children, Youth, and Their Families (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Policies, programs, and practices impacting services to children, youth, and their families. Public child welfare at state, national, and international levels.

**S W 352 Gender, Sexism, and Social Welfare (3)**

*Prerequisite:* upper division standing. Sex role stereotyping in the policies, practices, and organization of social welfare institutions; practice of social workers.

**S W 400 Social Work Practice I (3)**

*Prerequisite:* junior standing. Must be taken concurrently with S W 300. Seminar in the systems with which the practitioner must deal and the changing nature of the practitioner's relationships with each of these systems.

**S W 401 Social Work Practice II (3)**

*Prerequisite:* completion of S W 400. Forming, maintaining, and coordinating action systems; differential ways of influencing systems in various phases of the change process; terminating change efforts.

**S W 402 Interviewing Skills in Social Work (3)**

*Prerequisite:* S W 400. Interviewing skills required of a social worker. Intake, informational, assessment, and interviews with families or groups.

**S W 410 Human Development and the Social Services (3)**

*Prerequisite:* junior standing. Relation of human development and behavior from conception through old age to the functions of social service agencies in dealing with life crises.

**S W 450 Introduction to Research in Social Work (3)**

*Prerequisite:* S W 301 or 401 or consent of instructor. The scientific method and its application to social work, the practitioner as consumer and contributor to social research.

**S W 456 Urban Community Organizing and Citizen Action (3)**

*Prerequisites:* S W 400, S W 401, and S W 402, or consent of instructor. History and current developments in community organization in the city. Principles and strategies of developing citizen action organizations. Role of community organizing and citizen participation in urban social programs. (Cross listed with USP 456. May not be repeated under alternate prefix.)

**S W 470 Social Differences and Social Work Practice (3)**

*Prerequisite:* S W 300 and 400. Class, ethnicity, age, culture, religion, and disability, and their relationship to social work. Development of skills to work with populations different from oneself.

**S W 502 Seminar on Field Experience I (2)**

*Prerequisites:* all junior year Social Work courses. Must be taken concurrently with S W 503. Analysis of field experiences utilizing social work theory and behavioral science concepts.

**S W 503 Field Experience in the Social Services I (2)**

*Prerequisites:* all junior year Social Work courses and consent of field director. Must be taken concurrently with S W 502. Field experience in a community social agency. May be repeated twice. CR/NC grading only.

**S W 504 Seminar on Field Experience II (2)**

*Prerequisites:* all junior year Social Work courses, satisfactory completion of S W 502 and 503, and consent of field director. Must be taken concurrently with S W 505. Analysis of field experiences utilizing behavioral concepts.

**S W 505 Field Experience in the Social Services II (2)**

*Prerequisites:* all junior year Social Work courses, satisfactory completion of S W 502 and 503, and consent of field director. Must be taken concurrently with S W 504. Field experience in a community social agency. CR/NC grading only.

**S W 660 The Roles of Non-profit Organizations in Urban Life (3) [GE]**

*Prerequisite:* senior standing. Analysis of non-profit organizations in social services: the arts, housing, environmental and community advocacy. The role of the board, laws, consumers and donors, income, volunteers, and decision-making. (Cross listed with PLSI/USP 660. May not be repeated under alternate prefix.)

**S W 699 Special Study (1-3)**

*Prerequisites:* consent of instructor, major adviser, and department chair. Supervised study of a particular problem selected by the student in consultation with the adviser.

**Graduate Courses****S W 700 History and Philosophy of Social Welfare (3)**

History of social welfare policies and services in the U.S. Political, economic, social, legal, and cultural contexts of social policy analyzed in terms of future implications. Applications to and implications for diversity.

**S W 701 Social Policy Analysis (3)**

*Prerequisite:* S W 700. Models and frameworks to analyze social policy. New policy/program directions and action plans.

**S W 710 Human Behavior and the Social Environment (3)**

Human development and social services through the life cycle. Current social services and unserved needs identified at each stage of life with emphasis on oppressed groups.

**S W 720 Research Methods in Social Work (3)**

*Prerequisites:* S W 450 or equivalent and completion of first semester of graduate social work program. Role of research in the development of social work theory and practice. Methods of data collection, processing, and analysis.

**S W 721 Seminar: Evaluative Research in Social Work (3)**

*Prerequisite:* S W 720. Design, execution, and analysis of evaluative research designs, methods, and strategies in social welfare.

**S W 730 Social Work Practice Methods (3)**

Concepts and processes of urban generalist practice. Development of skills relevant to the needs and aspirations of oppressed individuals, groups, and communities.

**S W 740 Fieldwork Instruction (2-3)**

*Prerequisite:* consent of field director. Must be taken concurrently with S W 741. Introduction to fieldwork and the professional nature of social work practice. Orientation, referral, and placement of students into social service agencies. CR/NC grading only. May be repeated for a total of 10 units.

**S W 741 Graduate Fieldwork Seminar (1)**

*Prerequisite:* Must be taken concurrently with S W 740. Evaluative seminar to analyze field experiences. Conducted by faculty field liaison and with agency field supervisor input. May be repeated for a total of 4 units.

**S W 760 Social Work and the Law (3)**

Social change through the judicial, legislative, and executive processes.

**S W 770 Ethnic and Cultural Concept and Principles I (3)**

Principles, concepts, theories, and frameworks that address human diversity and affect the local, national, and international contexts of practice, especially as they relate to populations that have been historically disenfranchised, oppressed, under-served/represented, and marginalized.

**S W 771 Ethnic and Cultural Concepts and Principles II (3)**

*Prerequisites:* S W 770. Critical analysis and evaluation of diverse social work intervention methods at the micro, mezzo, and macro levels. Innovative and culturally relevant interventions, in local, national and international contexts, to address service needs of historically disenfranchised, oppressed, under-served/represented, and marginalized populations.

**S W 800 Planning and Program Development (3)**

*Prerequisite:* S W 700 or consent of instructor. Planning and program development of human service organizations. Needs assessing, analyzing, management planning and programming, marketing, fundraising, and grant writing.

**S W 801 Change Strategies and Professional Values (3)**

*Prerequisite:* S W 700. Social work as a profession in relation to social change; effect changes have on present and future relationships.

**S W 810 Health, Illness, and Disordered Behavior (3)**

*Prerequisite:* S W 710. Seminar examining health, illness, disability, stress reactions, and psychopathology with implications for social work practice.

**S W 811 Seminar: Organizations, Institutions, and Communities (3)**

*Prerequisite:* S W 710. Organizational theories that relate to social service bureaucracies in public and private sectors. S W 820

Seminar: Advanced Research Methodology in Social Work (3)

*Prerequisite:* S W 720. Research applied to the design of projects: human subjects protocol and use of computers for research.

**S W 830 Seminar: Social Casework (3)**

*Prerequisite:* S W 730. Methods of helping individuals cope with personal and social problems. S W 831 Seminar: Advanced Social Casework (3)

*Prerequisite:* S W 830. Use of relationships and the formulations of psycho-social diagnosis; adaptation of the process to traditional and non-traditional social casework.

**S W 832 Seminar: Social Group Work (3)**

*Prerequisite:* S W 730. Small group behavior; social work interventions required for improving relationships within groups.

**S W 835 Theories, Methods, and Strategies for Social Action and Change (3)**

*Prerequisite:* S W 730. Theoretical, methodological, and strategic bases for social action and change at mezzo, macro, and international levels. Processes and how changes are initiated, adopted, legitimized, established, maintained, and institutionalized. Power, control, and resistance in context of social and economic justice.

**S W 836 Social Action and Change for Economic and Social Justice (3)**

*Prerequisite:* S W 835. Select, plan, organize, implement, and evaluate social action and change approaches to achieve social and economic justice, especially for historically oppressed, underrepresented, and underserved populations. Culturally appropriate, sensitive, and effective methods for organizing and implementing social action/change in international context.

**S W 842 Social Work with the Aged (3)**

Social work practice with older people and their families. Policy issues, program design, and the nature of practice in the field of aging. (formerly cross listed with GRN 730. Not open to students who have completed GRN 730.)

**S W 843 Child Welfare Practice with Children and Families (3)**

Public child welfare systems. Assessment and intervention with children who have been or are at risk of being abused or neglected, and their families.

**S W 850 Human Services Administration I (3)**

*Prerequisite:* S W 730 or consent of instructor. Features that shape social work: policy organization, management, coordination, interpretation, and financing; supervision as an administrative-teaching process and managerial function.

**S W 851 International Aging (3)**

Problems and solutions encountered in different cultural contexts for aging populations. Comparative analysis of programs related to health, mental health and long-term care services within the U.S. and internationally. (Cross listed with GRN 851. May not be repeated under an alternate prefix.)

**SW 855 Seminar: Current Issues in Social Work (1-4)**

*Topic to be specified in Class Schedule. May be repeated for a total of 6 units when topics vary.*

**SW 862 Child Welfare Policy (3)**

Analysis of major issues in the provision of public and publicly funded child welfare services. Examination of preventive, supportive, and substitute programs for children/families; changing urban family roles, cultural-racial-class factors, effective development, and children's rights.

**SW 864 Human Services Administration II (3)**

*Prerequisite:* SW 880. Management theory applied to public human service agencies.

**SW 865 Social Work Practice in School Settings (3)**

*Prerequisites:* graduate status and SW 730. Must be taken concurrently with SW 740 and SW 741. Focus is on school social work as part of an interdisciplinary approach to resolving school-related problems, and on social workers as facilitators and advocates in aiding students, families, schools, and communities to achieve educational goals.

**SW 880 Computer Technology and Human Services (3)**

*Prerequisite:* completion of or concurrent enrollment in SW 850. Computer technology applied to management of social service agencies. Concepts, skills, and tools that can be utilized to manage information systems in social service agencies. Classwork, 1 unit; laboratory, 1 unit.

**SW 890 Integrative Seminar (3)**

*Prerequisite:* fourth or final semester of 2-year MSW program. Must have submitted approved ATC. Application of the five core competencies (direct practice, policy, community organization, human behavior, and research) to practice systems. CR/NR only.

**SW 895 Research Projects in Social Work (3)**

*Prerequisite:* advancement to candidacy. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**SW 898 Master's Thesis (3)**

*Prerequisite:* advancement to candidacy. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. SW 899 Special Study (1-3)

An intensive study of a particular problem in social work under direction of a member of the social work faculty. Open only to students who have demonstrated ability to do independent work. Enrollment by petition.

**SOCIOLOGY***Undergraduate Courses***SOC 105 Sociological Perspectives (3) [GE]**

Major ideas, concepts, and methods in the study of society: social structure, social interaction, culture, social policy and social change.

**SOC 110 Sexuality in Society (3)**

Cross listed with SXS 110. For course description, see SXS 110. (May not be repeated under alternate prefix.)

**SOC 200 Changing Cities (3) [GE]**

Cross listed with USP 200. For course description, see USP 200. (May not be repeated under alternate prefix.)

**SOC 245 Social Problems (4) [GE]**

Identification and analysis of contemporary social problems: the role of power and ideology in defining social problems, their causes and consequences, evaluation of proposed solutions, and methods of intervention.

**SOC 272 Social Inequality: Poverty, Wealth, and Privilege (4) [GE]**

*Prerequisite:* ENG 114. Patterns of social stratification and inequality. Class, status, and power dimensions; cultural variations; patterns of class mobility and change. (Formerly SOC 472.)

**SOC 275 Sociology by the Bay (2)**

*Prerequisite:* None. Speaker series introducing students to sociological research and related work being done in the San Francisco Bay Area or conducted by Bay Area sociologists. CR/NC grading only.

*Sociology courses numbered 300 and above require upper division standing and completion of GE Segment I requirements including ENG 214 or equivalent. SOC 370 and 392 require passing of JEPET or concurrent enrollment in ENG 414.*

**SOC 300 Sociological Analysis - GVAR (4)**

*Prerequisites:* completion of GE Segment I; ENG 214 or equivalent with grade of C- or better; upper division standing; sociology major; and completion of two sociology courses with grades of C or better. Sociological analysis, writing, and research. ABC/NC grading only.

**SOC 330 Comparative Race and Ethnicity in the U.S.: Class, Gender, and Nation (3)**

*Prerequisites:* upper division standing or consent of instructor. Cross listed with ETHS 330. For course description, see ETHS 330. (May not be repeated under alternate prefix.)

**SOC 362 The Social Construction of Deviance and Conformity (4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Social processes of rule making, enforcing, and breaking; theoretical and methodological problems of conceptualizing and analyzing values, rules, power, social judgments, and punishment.

**SOC 370 Classical Theories of Society (4)**

*Prerequisites:* SOC 300, completion of GE Segment I, passing JEPET or concurrent enrollment in ENG 414, upper division standing. Fundamental assumptions underlying classical sociological theory. Surveys the works of scholars such as Marx, Durkheim, Weber and other classical thinkers.

**SOC 371 Contemporary Theories of Society (4)**

*Prerequisites:* SOC 300, completion of GE Segment I requirements, passing score on JEPET or concurrent enrollment in ENG 414 or equivalent, and upper division standing. Examination of the most salient works in contemporary sociological theory.

**SOC 392 Introduction to Research Methods (4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent; SOC 300GV; SOC 370 or SOC 371 or consent of instructor. Nature of scientific research and research design; relationship of research to sociological theory. Classwork, 3 units; laboratory, 1 unit.

**SOC 393 Quantitative Analysis of Social Data (4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent, SOC 392, and upper division standing, or consent of instructor. Techniques of measuring, tabulating, analyzing, and interpreting statistical data. Classwork, 3 units; laboratory, 1 unit.

**SOC 394 Sociological Field Methods (4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent, SOC 392, and upper division standing, or consent of instructor. Theoretical and practical exploration of sociological methods for studying relationships between day-to-day experiences and broader social structures, ideologies, and inequalities. Field methods include interviewing, participant observation, and content analysis. Special focus on writing, analytical, and presentation skills.

**SOC 400 Variations in Human Sexuality (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with SXS 400/PSY 450. For course description, see SXS 400. (May not be repeated under alternate prefix.)

**SOC 410 Grassroots Organizing for Change in Communities of Color (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with ETHS 410. For course description, see ETHS 410. (May not be repeated under alternate prefix.)

**SOC 420 Indigenous Media and Social Change (4)**

*Prerequisites:* completion of all GE Segment I requirements and upper division standing. Examination of contemporary visual culture, particularly commercial culture, for its impact on personal and collective identity. Technical aspects of creating and altering visual media. (Cross listed with ANTH 420. May not be repeated under alternate prefix.)

**SOC 424 Social Movements (4)**

*Prerequisites:* ENG 214 or equivalent. Cross listed with PLSI 424. For course description, see PLSI 424. (May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**SOC 451 Criminological Theory (4) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Social, economic, and political context in which criminological theories (past and present) emerged and how they are reflected in legal practices. (Cross listed with CJ 452. May not be repeated under alternate prefix.)

**SOC 452 Juvenile Justice (4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Analysis of "delinquency," emergence and administration of juvenile law, and analysis of social organizations for youthful offenders. Classwork, 3 units; fieldwork, 1 unit. (Cross listed with C J 470. May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**SOC 455 Punishment and Social Control (3) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Contemporary and historical methods of punishment and control are examined as reflections of broader trends in society.



**SOC 461 Ethnic Relations: International Comparisons (4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Sociological factors related to ethnic identity, nationalism, and conflict in selected multi-ethnic societies worldwide. Ethnicity in politics, religion, family, education, and work.

**SOC 464 Families and Society (4) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Family variations in the U.S. and the world: historical antecedents and social influences; changing structure of the family, problems and emerging trends.

**SOC 467 Lesbian, Gay, Bisexual, Transgender, and Queer Cultures and Society (4) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Sociological analysis of the character and development of lesbian, gay, bisexual, transgender, and queer communities and cultures in the context of broader social inequalities and social transformations. Special attention to the historical and social antecedents of the contemporary U.S. Focus on empirical and theoretical work within sociology. (Cross listed with SXS 667. May not be repeated under alternate prefix.)

**SOC 468 Social Aspects of Human Sexuality (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Sexuality as human social behavior. Social, cultural, and ethnic causes and consequences of ways of behaving sexually.

**SOC 469 Gender and Society (4) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Sex roles in society. Origin, socialization, and demands of conformity. Restrictions and encouragements for breaking with conventional sex roles.

**SOC 471 Societal Change and Development (4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent; upper division standing. Examination of complexities and concern inherent in the understanding of societal change and development. Most salient theories, problems, and solutions in the field. Emphasis on the relationship between societal and global change.

**SOC 476 Medical Sociology (3) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Sociology of health and illness; organization of medical care; therapeutic interaction; medico-social problems; innovation in health care.

**SOC 477 Environmental Sociology (3) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Changing organization of human societies and their relations with the natural environment; environmental consequences of modern cultural beliefs and lifestyles. Social consequences of environmental changes.

**SOC 480 City in a Global Society (4) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Urban life and settings in U.S. and internationally. Analysis of impact of the global context. Economic, ethnic, gender, cultural, political, and technological changes. (Cross listed with USP 470. May not be repeated under alternate prefix.)

**SOC 481 Sociology of Brazil (3)**

*Prerequisite:* ENG 214 or equivalent and upper division standing. Broad view of the evolution of Brazilian society, analyses of specific issues that are vital for the understanding of contemporary Brazil, and insights about the relative nature of sociological phenomena through social comparisons.

**SOC 482 Global Immigration and Immigrants (3) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Social, cultural, and historical issues associated with international migration. Reasons why people migrate and how migration changes social institutions, local communities, whole countries, and the migrants themselves.

**SOC 483 Global Sociology (4) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Global processes and their impact on different societies and individuals. Global theory; social problems such as poverty, hunger, racism, sexism, global warming, labor exploitation.

**SOC 484 Population and Social Dynamics (4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Population dynamics: social factors related to social and environmental problems of population growth or decline. Human fertility and fertility control, mortality, and migration. Population policy.

**SOC 486 Sociology of Mental Health (3)**

*Prerequisite:* Completion of GE Segment I, ENG 214 or equivalent, and upper division standing. Sociological approach to the study of mental health seeking to identify the social conditions that affect psychological well-being, and to describe the processes linking social conditions to psychological effects.

**SOC 490 Sociology of Popular Culture (3)**

*Prerequisite:* ENG 214 or equivalent. Exploration of sociological theories and methods for analyzing historical and contemporary cultural expressions in popular music, art, film, television, and advertising.

**SOC 491 Ancestors or Data?: Culture, Conflict and NAGPRA (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with AIS 490. For course description, see AIS 490. (May not be repeated under alternate prefix.)

**SOC 492 Sociology of Art (3)**

*Prerequisite:* Completion of SEG 1, including ENG 214 or equivalent; upper division standing. Sociological perspectives on the social production, distribution, and consumption of art; art as an expression of collective identity; art as signifier of the meanings human beings attribute to the social world; and the relationship between art and social change.

**SOC 494 Sociological Research III: Special Projects (2-4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent, upper division standing, SOC 392, SOC 393 or equivalent. May be taken concurrently with SOC 393. Supervised experience in carrying out well-defined research projects. Enrollment by petition. May be repeated for a total of 6 units.

**SOC 500 Senior Seminar (3)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent, upper division standing, SOC 300, SOC 370, and SOC 392, or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 6 units when topics vary.

**SOC 501 Internship: Applied Sociology (2)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent, SOC 370 or 371, SOC 392, and senior standing. Contact instructor the semester prior to enrollment. Must be taken concurrently with SOC 502. Fieldwork in approved public or private organization or agency. Supervision by organization staff and faculty coordinator. CR/NC grading only. [CSL may be available; consult index for page reference.]

**SOC 502 Internship Seminar: Applied Sociology (1)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent, SOC 370 or 371, SOC 392, and senior standing. Contact instructor for consent the semester prior to enrollment. Must be taken concurrently with SOC 501. Analysis of internship experience. [CSL may be available; consult index for page reference.]

**SOC 552 Comparative Employment Relations (3)**

*Prerequisite:* upper division standing. Cross-listed with LABR 552. For course description, see LABR 552. (May not be repeated under alternate prefix.)

**SOC 553 Labor Standards and Corporate Social Responsibility (3)**

*Prerequisite:* upper-division standing. Cross listed with LABR 553. For course description, see LABR 553. (May not be repeated under alternate prefix.)

**SOC 554 Themes in Comparative Employment Relations (3)**

*Prerequisite:* upper division standing. Cross-listed with LABR 554. For course description, see LABR 554. (May not be repeated under alternate prefix.)

**SOC 555 Labor Rights in the Global Economy (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with LABR 555. For course description, see LABR 555. (May not be repeated under alternate prefix.)

**SOC 580 Educational Equity (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with LTNS 580 [formerly RAZA 580] and ETHS 580. For course description, see LTNS 580. (May not be repeated under an alternate prefix.) [CSL may be available; consult index for page reference.]

**SOC 640 Sociology of Latino Experience (3)**

*Prerequisite:* Upper division standing or consent of instructor. Cross listed with LTNS 640 [formerly RAZA 640]. For course description, see LTNS 640. (May not be repeated under alternate prefix.)

**SOC 645 Identities, Inequalities and Struggles in Latin America (3)**

*Prerequisite:* completion of Segment 1, including ENG 214 or equivalent; upper division standing. Theoretical and empirical exploration of the social structures and processes of identities, inequalities, and struggles associated with class, race, ethnicity, nationality, gender, and sexuality in contemporary Latin American societies.

**SOC 685 Projects in the Teaching of Sociology (1-4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent, upper division standing, consent of instructor, minimum grade of B+ in course (or equivalent) student will be assisting in, and cumulative GPA of 3.0. Instructional aides have opportunity to increase knowledge of course topic and understanding of processes of teaching and learning. Aides provide assistance to students in class activities such as writing assignments, research projects, preparation for examinations, general study habits. May be repeated once for a total of 4 units.

**SOC 699 Special Study (1-4)**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent, upper division standing, consent of instructor, major adviser, and department chair. Supervised study of a particular problem selected by the student.

*Graduate Courses***SOC 899 Special Study (1-3)**

*Prerequisites:* permission of the graduate major adviser, the supervising faculty member, and the department chair. Study is planned, developed, and completed under the direction of a member of the faculty. Enrollment by petition.

**SPANISH***Undergraduate Courses*

All upper division courses are conducted in Spanish.

**SPAN 101 First Semester Spanish (5) [GE]**

Introduction to understanding, speaking, reading, and writing Spanish.

**SPAN 102 Second Semester Spanish (5) [GE]**

*Prerequisite:* SPAN 101 or equivalent. Understanding, speaking, reading, and writing Spanish; Spanish.

**SPAN 205 Intermediate Spanish I (3) [GE]**

*Prerequisite:* SPAN 102, placement by advisor, or consent of instructor. Intermediate course that reinforces and builds on four skills (listening, understanding, reading, and writing) learned in SPAN 101/102.

**SPAN 206 Intermediate Spanish II (3) [GE]**

*Prerequisites:* SPAN 205, placement by advisor, or consent of instructor. Continuation of SPAN 205 which reinforces and builds on four skills (listening, understanding, reading, and writing) learned in SPAN 101/102.

**SPAN 216 Accelerated Grammar, Conversation, and Reading (3) [GE]**

*Prerequisite:* SPAN 102 or placement by advisor and/or instructor. Second-year Spanish at an accelerated pace. This course is also appropriate for students, including heritage speakers, whose prior experience with the language places them at a high-intermediate level.

**SPAN 301 Advanced Grammar and Composition (3) [GE]**

*Prerequisite:* four semesters of lower-division Spanish or equivalent. Problematic aspects of Spanish grammar; practice in expository writing.

**SPAN 305 Advanced Composition (3) [GE]**

*Prerequisite:* SPAN 301 or consent of instructor. Practice in expository writing: forms, development, and organization of the short essay including the study of style.

**SPAN 306 Advanced Reading and Conversation (3) [GE]**

*Prerequisite:* SPAN 216 or consent of instructor. May be taken concurrently with SPAN 305. Oral presentations/group discussions based on readings from novels, plays, and poetry. Not designed for native-level speakers.

**SPAN 310 Advanced Spanish for Heritage Learners (3)**

*Prerequisite:* Spanish heritage learner and consent of instructor. Designed for heritage language learners. Emphasis on advanced conversation, writing styles, and specific grammatical problems. Additional focus on short stories, essays, poems, plays, newspaper articles, films, all in Spanish, and Spanish music.

**SPAN 326 Applied Spanish Linguistics: Morphology and Syntax (3) [GE]**

*Prerequisites:* SPAN 216 and 301 or equivalent. Application of modern descriptive linguistics to the study of morphology and syntax.

**SPAN 341 Introduction to the Reading of Literary Texts (3)**

*Prerequisite:* SPAN 216 or consent of instructor. Introduction to the reading and analysis of literary texts.

**SPAN 350 Practical and Literary Translation (3) [GE]**

*Prerequisites:* native fluency in English and moderate competency in understanding, speaking, and reading Spanish. Theoretical and practical aspects of translation. Exercises in translating Spanish to English. Conducted in both Spanish and English.

**SPAN 401 Culture and Civilization of Spain-GWAR (3)**

*Prerequisites:* ENG 214 with grade of C- or better; at least 2 years of college-level Spanish or equivalent. Culture and civilization of Spain from the Middle Ages to the present. ABC/NC grading only.

**SPAN 405 Culture and Civilization of Spanish America (3) [GE]**

*Prerequisites:* SPAN 305 and 306 or equivalent. Background for Spanish American literature.

**SPAN 500 Introduction to Literary Criticism (3) [GE]**

*Prerequisites:* SPAN 305 and 306 or equivalent. Techniques in literary interpretation using Spanish prose and poetry.

**SPAN 521 Spanish Medieval, Renaissance, and Baroque Literature (3) [GE]**

*Prerequisite:* SPAN 500 or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 9 units of degree credit when topics vary.

**SPAN 523 18th and 19th Century Spanish Literature (3) [GE]**

*Prerequisite:* SPAN 500 or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 9 units of degree credit when topics vary.

**SPAN 525 20th Century Spanish Literature (3) [GE]**

*Prerequisite:* SPAN 500 or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 9 units for degree credit when topics vary.

**SPAN 541 Spanish American Literature: Discovery to Early Romanticism (3) [GE]**

*Prerequisite:* SPAN 500 or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 9 units for degree credit when topics vary.

**SPAN 543 Spanish American Literature: Romanticism to Modernism (3) [GE]**

*Prerequisite:* SPAN 500 or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 9 units for degree credit when topics vary.

**SPAN 545 20th Century Spanish American Literature (3) [GE]**

*Prerequisite:* SPAN 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**SPAN 562 Cervantes: The Quijote (3) [GE]**

*Prerequisite:* SPAN 500 or equivalent. Reading and analysis of Don Quijote.

**SPAN 580 Great Figures in Hispanic Literature (3) [GE]**

*Prerequisite:* SPAN 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when writers vary.

**SPAN 595 Senior Survey in Spanish or Spanish American Literature (3) [GE]**

*Prerequisite:* SPAN 500 or equivalent. Topic to be specified in Class Schedule. May be repeated for a total of 6 units when topics vary.

**SPAN 699 Special Study (1-3)**

*Prerequisites:* consent of department chair and instructor. Special topics in Spanish. Written projects requiring critical analysis and interpretation of linguistic or literary problems. May be repeated for credit.

*Graduate Courses*

*Prerequisite for each graduate course in Spanish:* admission to Spanish program or consent of instructor.

**SPAN 821 Seminar in Spanish Literary Genres (3)**

*Prerequisite:* admission to Spanish program or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 9 units when genres vary.

**SPAN 831 Seminar in Literary Movements or Periods (3)**

*Prerequisite:* admission to Spanish program or consent of instructor. Topic to be specified in Class Schedule. May be repeated when movements or periods vary.

**SPAN 850 Seminar-Spanish and Latin American Literature (3)**

*Prerequisite:* graduate standing in Spanish M.A. program or consent of instructor. Approach to literature based on topics, problems, and issues in contemporary Spanish and Latin American literary production. May be repeated as topics vary.

**SPAN 880 Seminar in Individual Authors or Works (3)**

*Prerequisite:* admission to Spanish program or consent of instructor. Topic to be specified in Class Schedule. May be repeated when authors or works vary.

**SPAN 899 Special Study (1-3)**

*Prerequisites:* consent of graduate major adviser and supervising faculty member; admission to Spanish program or consent of instructor. Study is planned, developed, and completed under the direction of a member of the department faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**SPECIAL EDUCATION***Undergraduate Courses***SPED 310 Exploring Visual Impairments (3) [GE]**

*Prerequisite:* upper division standing. Examines challenges posed in daily life for people with visual impairments and their families. Explores options to promote independent living and inclusion in the community for people of all ages and diverse backgrounds. (Formerly SPED 633.)

**SPED 330 Introduction to Disability (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Ways in which society defines, fosters, and attempts to remediate disabilities. The disabled as a minority group; relationships between ethnicity and societal definitions of disability. Designed for students desiring understanding of individuals with disabilities and their experiences in society.

**SPED 370 Young Children Disabled or At Risk and Their Families (3) [GE]**

*Prerequisite:* upper division standing. Issues related to the development of infants and toddlers with disabilities: prenatal risk factors; family concerns; and a description of cognitive, social, motor, and language development differences.

**SPED 601 Observation and Participation in Special Education (1-3)**

*Prerequisite:* admission to special education credential program. Supervised educational and clinical practice with children and youth with disabilities in schools, hospitals, or clinics as required by field of specialization. CR/NC grading only. May be repeated as required by credential.

**SPED 655 Basic Orientation and Mobility for Learners with Visual Impairments (3)**

*Prerequisite:* upper division standing. Development of spatial and environmental concepts and sensorimotor skills in young learners with visual impairment. Application of orientation and mobility related concepts to travel in home, school, and community environments. (Formerly SPED 755.)

**SPED 662 Education of Deaf/Hard of Hearing Children (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Overview of program options for deaf and hard of hearing children: oralism, total communication, and bilingual/bicultural communication. Historical and current issues, trends, and legislation. Purposes and services of organizations, agencies, and educational programs.

**SPED 671 Positive Behavior Support for Young Children (3)**

*Prerequisite:* SPED 330 or 370, upper division standing, or consent of instructor. Positive behavior approach to addressing challenging behavior of young children at home and in group settings. Practical ideas for fostering social competence, promoting positive behavior, and preventing the occurrence of undesirable behaviors. (Formerly SPED 371.)

**SPED 672 Inclusive Learning Environments for Young Children (3)**

*Prerequisite:* SPED 330 or 370, upper division standing, or consent of instructor. Practical strategies for including young children with special needs in early childhood settings. Collaborating with professionals and families to provide culturally responsive and individualized learning opportunities. (Formerly SPED 372.)

**SPED 675 Working with Families of Young Children with Disabilities (3)**

*Prerequisite:* SPED 330 or 370 and upper division standing or consent of instructor. Strategies for partnering with families of young children birth to five who have disabilities. Perspectives on developmental and ecological systems. Culturally responsive practice in early childhood settings that include children with special needs.

**SPED 688 American Sign Language I (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. American Sign Language (ASL): ASL as a language system; development of expressive/receptive skills and finger spelling. Vocabulary, grammatical principles, aspects of the deaf culture.

**SPED 689 American Sign Language II (3)**

*Prerequisite:* SPED 688. Additional vocabulary, grammatical information, and exposure to deaf culture; practice in both expressive and receptive skills.

*Graduate Courses***SPED 723 Seminar: Student Teaching for M/S, VI, and D/HH (3)**

*Prerequisites:* CAP on file; verification of eligibility by department. Must be taken concurrently with SPED 730. Seminar for student teachers in moderate/severe, visual impairment, and deaf/hard of hearing credential programs. Review planning, guiding, and evaluating experiences during student teaching experience. Includes development of preliminary induction plan.

**SPED 726 Seminar: Student Teaching for M/M, PHI, and O&M (3)**

*Prerequisites:* CAP on file; verification of eligibility by department. Must be taken concurrently with SPED 730. Seminar for student teachers in mild/moderate disabilities, physical and health impairment, and orientation and mobility credential programs. Review planning, guiding, and evaluating experiences during student teaching experience. Includes development of preliminary induction plan.

**SPED 729 Student Teaching Workshop: Early Childhood Special Education (1)**

*Prerequisite:* consent of program/instructor. Must be taken concurrently with SPED 730. Reviews planning, guiding, and evaluating experiences of students eligible for early childhood special education services. Development of a preliminary induction plan. May be repeated for a total of 2 units. (Plus/Minus Letter grading only.)

**SPED 730 Student Teaching: Special Education (3-11)**

*Prerequisite:* completion of advanced curriculum or consent of adviser. Must be taken concurrently with SPED 723, 726, or 729 in credential area. Student teaching field experience in special education setting as required by credential. Units upon advisement. CR/NC grading only. May be repeated if required by credential. (Students who receive a grade of No Credit twice will be subject to declassification from the credential.)

**SPED 735 Technology for Visually Impaired Students (2)**

*Prerequisites:* SPED 754 or consent of instructor. Specialized technology and computer integration for individuals with visual impairments. Use of devices: closed circuit television, word processors, large print displays, voice output, electronic note takers and adaptive materials such as talking calculators and tactile graphics.

**SPED 737 Infant Intervention (3)**

*Prerequisite:* SPED 777. Models for disabled infants and families, interagency coordination, program administration, and transdisciplinary team approach. Practicum experience with an atypical infant as part of seminar requirement. Part one of a two-part sequence curriculum series with SPED 738.

**SPED 738 Preschool Intervention (3)**

*Prerequisites:* SPED 777; SPED 737 (preferred for M.A. candidates). Curriculum and instructional models for preschool, interagency coordination, program administration, and collaboration with families. Experience working with disabled preschoolers.

**SPED 740 Induction Plan Education Specialist (3)**

*Prerequisite:* completion of Preliminary Level I Education Specialist Credential and employment in credential area; graduate standing. Development, implementation, and evaluation of induction plan to clear education specialist credentials for candidates. Minimum 6 units required over two separate semesters. (Plus-minus letter grade only.)

**SPED 741 Introduction to Canine Assessment and Training (3)**

*Prerequisites:* admission to Guide Dog Mobility Program. Physical, emotional and psychological development of dogs. Learning and training theories related to both canines and humans. Overview of the evolution and formal use of dog guides and long canes as mobility tools.

**SPED 743 Issues in Augmentative and Alternative Communication (3)**

*Prerequisite:* admission to program or consent of instructor. Physical implications for speech/language development and disorders, aided/unaided communication strategies, assessment and intervention using interdisciplinary strategies for children and adults.

**SPED 745 Environmental Design for Students with Moderate/Severe Disabilities (3)**

*Prerequisites:* SPED 702, SPED 803. Must be taken concurrently with SPED 773 and SPED 821. Inclusive education: historical and philosophical bases, advocacy roles, and collaborative teaming skills necessary for the development and delivery of curriculum in inclusive school and community settings.

**SPED 746 Teaching Individuals with Physical and Other Health Impairments (3)**

*Prerequisites:* SPED 747 or consent of instructor. Advanced methods: disabilities assessment, instruction; organization and curriculum design; communication intervention literacy; assistive technology; and collaboration with parents, aides, and other professionals.

**SPED 747 Physical Disabilities and Sensory Impairments (3)**

*Prerequisite:* admission to MA program or education specialist credential. Focus on medical information and its implications for instruction, as well as physical management of students with sensory and physical disabilities. Management of special equipment, feeding, positioning and emergency handling procedures. Plus-minus letter grade only.

**SPED 749 Medical, Educational, and Rehabilitative Implications of Visual Impairment (4)**

*Prerequisites:* SPED 655 or 758 or consent of instructor. Anatomy, physiology and disorders of the eye, and the functional/educational implications of vision loss. Assessment of low vision, use of prescriptive and non-prescriptive low vision aids to optimize use of vision. Application to individualized program planning and implementation.

**SPED 750 Assessment for Learners with Visual Impairments (3)**

*Prerequisites:* SPED 749 or consent of instructor. Formal and informal assessment to determine the unique educational needs and appropriate learning media for individuals with visual impairments. Selection, adaptation, and preparation of instructional materials: print, Braille, and auditory. Evaluation of learning environments and alternative forms of service delivery.

**SPED 751 Instruction for Learners with Visual Impairments (3)**

*Prerequisite:* SPED 749 or consent of instructor. Selection, adaptation, and preparation of instructional materials and design of learning environments. Disability specific academic skills and accessing specialized resources. Adaptation of regular education curriculum for learners with visual impairments.

**SPED 752 Issues in Visual Impairment (3)**

*Prerequisites:* SPED 749 or consent of instructor. Psychosocial and vocational implications of visual impairment. Instructional methods and strategies for transition. Local, state, and national legislation.

**SPED 753 Living Skills Assessment and Instruction for Learners with Visual Impairments (3)**

*Prerequisites:* SPED 749 or consent of instructor. Methods and instructional strategies for teaching specialized functional skills to individuals with visual impairments. Design and implement functional and age appropriate programs for learners of different cognitive abilities.

**SPED 754 Basic Communication Skills for Learners with Visual Impairments (3)**

*Prerequisites:* SPED 749 or consent of instructor. Mastery of literary Braille. Assessment and teaching of Braille reading and writing. Computer generated translations and electronic note takers. Equipment and methods of producing Braille materials. Braille production including Braille slate and stylus.

**SPED 755 Formal Guidework Training (3)**

*Prerequisites:* admission to Guide Dog Mobility Program. *Prerequisites:* admission to Guide Dog Mobility Program. Training and communicating with a guide dog. Development of advanced techniques to reduce resistance and avoidance behaviors in potential guide dogs. Mobility techniques and final preparation of guide dogs to work in complex and challenging environments.

**SPED 756 Orientation and Mobility Seminar (3)**

*Prerequisite:* SPED 755, or consent of instructor. Issues and trends, philosophies, and professional ethics. Service delivery systems and resources for establishment, administration, and supervision of orientation and mobility programs.

**SPED 757 Visual Impairment: Special Populations (3)**

*Prerequisite:* SPED 749 or consent of instructor. Impact of visual impairment on growth and development of learners age 0-22 years. Transdisciplinary approach to serving learners who have multiple impairments.

**SPED 758 Advanced Communication Skills for Learners with Visual Impairments (3)**

*Prerequisite:* SPED 754 or consent of instructor. Advanced formats of Braille codes: literary, mathematical, computer, foreign language, and music. Use of slate and stylus.

**SPED 759 Introduction to Client Instruction (3)**

*Prerequisites:* admission to Guide Dog Mobility Program. Introduction to working with a guide dog team, including initial instructional methods and skills, transitioning from cane to guide dog mobility. Orientation & mobility for special populations. Travel on college campuses. Sensory strategies for working a guide dog.

**SPED 760 Methods in Orientation and Mobility I (3)**

*Prerequisite:* SPED 755 (may be taken concurrently). Must be taken concurrently with SPED 792. Use of the long cane. Orientation and mobility in indoor and simple residential outdoor environments. Application of concepts to travel in home, school, and community environments.

**SPED 761 Instructional Management and Special Populations (3)**

*Prerequisites:* admission to Guide Dog Mobility Program. Overview of client/guide dog instructional programs, procedures and techniques. Home interviews and client assessment in preparation for residential training programs. Post-training evaluation and problem solving.

**SPED 763 Transition Planning for Students with Disabilities (3)**

Strategies to facilitate the transition from early childhood educational and related services, to services provided in K-12 schools, and to facilitate self-determined careers, post-secondary education, and community living for secondary-aged students with disabilities.

**SPED 770 Mild/Moderate Disabilities (3)**

Mild/moderate disabilities: definition and diagnosis of learning disabilities, emotional/behavior disorders, and mental retardation. Historical factors and current issues pertaining to public policy and service delivery.

**SPED 772 Assessment, Curriculum, and Instruction (3)**

*Prerequisites:* E ED 682 and E ED 684, SPED 702 and SPED 803. Development of assessment, curriculum, and instructional practices to provide responsive instruction to meet diverse needs of individuals with mild, moderate, and severe disabilities.

**SPED 773 Methods of Assessment and Instruction for Students with Moderate/Severe Disabilities (3)**

*Prerequisites:* SPED 702, SPED 803. Must be taken concurrently with SPED 745 and SPED 821. Methods of assessment, curriculum, and instruction for students with moderate/severe disabilities, including ecological assessments and systematic instruction and evaluation of student progress.

**SPED 774 Positive Behavior Support (3)**

*Prerequisites:* SPED 702, 803, E ED 682, and 684; or consent of instructor. Understanding and interpreting behavior; ecological perspectives. Proactive strategies to prevent occurrence and escalation of problem behaviors, evaluation of behavior problems, and implementation of interventions in the least restrictive environment.

**SPED 775 Advanced Methods in Mild/Moderate Disabilities (3)**

*Prerequisites:* E ED 682, E ED 684, SPED 702, SPED 772, SPED 774, and SPED 803. Must be taken concurrently with SPED 770. Procedures for assessing needs, selecting curriculum priorities, and designing responsive instructional and behavioral plans for meeting the needs of individuals with mild and moderate disabilities.

**SPED 777 Atypical Infant Development (3)**

*Prerequisites:* generic special education sequence and consent of instructor. Atypical infant developmental patterns with comparisons to normal development. Implications for early intervention and future educational programming. Practicum experience with an atypical infant.

**SPED 778 Advanced Literacy and Instruction (3)**

Focus on current research on literacy and skills related to the development of student literacy. Assessment, curriculum development and instructional practices for teaching reading to students experiencing reading difficulties, especially those with mild to moderate disabilities. SPED 779 Family Systems and Services for Young Children with Disabilities (3)

*Prerequisite:* SPED 777. Understanding and assessing family systems and caregiver-child interactions; developing intervention programs. Family situations that generate unique needs. Learn how to effectively communicate with families of disabled children and to link families with community support networks.

**SPED 780 Assessment and Program Evaluation in Early Childhood Special Education Setting (3)**

Assessment of children from birth to five years; program evaluation design. Analysis of both formal and informal assessments, translation of child and family assessment into educational plans, and overall program evaluation designs.

**SPED 787 Advanced Assessment and Instruction for Students with Moderate/Severe Disabilities (3)**

*Prerequisites:* SPED 702, SPED 803, SPED 745, SPED 773. Must be taken concurrently with SPED 789 and SPED 821. Assessment, curriculum, and instructional design for students with moderate to severe disabilities with special emphasis on students who experience sensory and/or physical disabilities.

**SPED 788 Law, Ethics, and Instructional Planning (3)**

*Prerequisite:* admission to MA program and education specialist credential. Legal foundations and requirements providing public education services to students with disabilities. Policy development, advocacy programs, IEPs, family support plans, technology and universal design, intervention and post-secondary transition. Plus-minus letter grade only.

**SPED 789 Advanced Environmental Design for Students with Moderate/Severe Disabilities (3)**

*Prerequisites:* SPED 702, SPED 803, SPED 745, SPED 773. Must be taken concurrently with SPED 787 and SPED 821. Development of communication systems for, and the interactive skills of, students with moderate/severe disabilities. Development and implementation of positive behavioral support plans for students with challenging behaviors.

**SPED 791 Nature of Autism Spectrum Disorders (3)**

*Prerequisites:* admission to SPED credential or MA program or consent of instructor. Educating diverse learners with Autism Spectrum Disorders, historical and theoretical foundation, etiology, definitions, characteristics, developmental and learning profiles, assessment frameworks and procedures, current and emerging practices, individualized educational supports and service delivery models.

**SPED 792 Methods in Orientation and Mobility II (3)**

*Prerequisite:* SPED 755 (may be taken concurrently). Must be taken concurrently with SPED 760. Age-related changes in orientation and mobility needs. Assessment and individualized instructional methods. Environmental analysis.

**SPED 793 Atypical Cognitive Development (3)**

Developmental theory as it applies to the education of atypical youth: cognitive development in its interrelation with linguistic, communicative, social, and affective development.

**SPED 794 Communication, Socialization and Imagination: Autism (3)**

*Prerequisites:* SPED 791 or consent of instructor. Enhancing communication, socialization, play and imagination in diverse learners with autism spectrum disorders; functional communication, AAC, pragmatic language approaches; environmental supports; adult-directed, child-centered, peer-mediated practices; inclusion with typical peer/siblings in school, home, community settings.

**SPED 796 Partnerships and Life Issues: Autism (3)**

Rigorous exploration and critical analysis of contemporary issues influencing the lifelong learning, development and sociocultural experiences of people on the autism spectrum; transitions and lifespan issues; family, school and community supports and partnerships; professional literacy and leadership as autism specialist.

**SPED 801 Development, Diversity, and ELL: Special Education (3)**

*Prerequisite:* admission to MA program or education specialist credential. Foundation in typical and atypical development, the interaction between diverse cultures, races and disability within the context of changing state and national demographics, and implications of disability for English-Language Learners. Plus-minus letter grade only.

**SPED 807 Research and Literature, Policy and Practice in Special Education (3)**

*Prerequisite:* admission to MA program or education specialist credential. Overview of research used in special education, both to formulate policy and inform practice. Explore various uses of research evidence and controversial topics. Research connected to world of practice. Plus-minus letter grade only.

**SPED 821 Fieldwork in Moderate/Severe Disabilities (3)**

*Prerequisites:* SPED 702, SPED 803. Must be taken concurrently with SPED 745, SPED 773, SPED 787, SPED 789. Supervised fieldwork to promote and support the application of knowledge and skills gained in core methods courses. Sites with educational programs for students with moderate/severe disabilities. May be repeated for a total of 6 units. CR/NC grading only.

**SPED 822 Methods in Orientation and Mobility III (3)**

*Prerequisites:* SPED 755, 760, and 792. Must be taken concurrently with SPED 823. Orientation and mobility in outdoor environments. Intersection analysis and street crossings. Use of public transportation.

**SPED 823 Methods in Orientation and Mobility IV (3)**

*Prerequisites:* SPED 755, 760, and 792. Must be taken concurrently with SPED 822. Independent travel in residential areas, light business areas, and downtown urban areas. Electronic travel devices. Diverse mobility systems and functions, and indications for their use in varying travel environments and by learners of diverse ages and travel needs.

**SPED 825 Behavior and Instructional Supports: Autism (3)**

*Prerequisites:* admission to Special Education credential or MA program or consent of instructor. Preparation in design and diverse learners with autism spectrum disorders; data-based assessment and intervention; environmental supports; structured teaching; differentiated instruction; ABA, cognitive, developmental, sensory-based approaches.

**SPED 831 Internship in Special Education (3-6)**

*Prerequisites:* ISED 797 and consent of graduate adviser. Practicum in clinics, rehabilitation centers, and schools under supervision of specialists in fields of special education or rehabilitation. May be repeated for a total of 6 units.

**SPED 844 Special Education Accommodation in Core Content Classrooms (2)**

*Techniques to facilitate collaborative work between General and Special Education teachers; specific strategies and tools to accommodate students with special needs in core curriculum classrooms.* SPED 881

Advanced Research Seminar in Special Education (3)

*Prerequisites:* advanced standing in master's degree program and ISED 797. Research designs. Development of problems and hypotheses. Matching research questions to designs. Critique of research studies. Major assignments include written critique and a research proposal.

**SPED 885 Advanced Topics in Special Education (1-3)**

*Prerequisites:* completion of Level I education specialist credential and SPED 740, or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**SPED 894 Creative Work Project in Special Education (3)**

Design, development, and production of instructional product in degree emphasis. Work may include curriculum or training materials in educational or related setting for professionals, students, and families. A final product and written report required. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by Graduate Studies before enrollment. CR/NC, RP grading only.

**SPED 895 Field Study: Special Education (3)**

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**SPED 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy and approval of graduate major adviser. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**SPED 899 Special Study (1-3)**

An intensive study of a particular problem in education under direction of a member of the department. Enrollment by petition approved by the instructor, adviser, and department chair. Open only to regularly enrolled students.

*Joint Doctoral Courses***SPED 902 Seminar in Program Development (1)**

*Prerequisite:* admission to joint doctoral program and consent of advisor. Translating service, policy and theoretical issues into applications for federal support for research, demonstration and training.

**SPED 903 Research Seminar in Special Education: Program Design and Analysis (3)**

*Prerequisite:* admission to doctoral program. Making of inferences between independent and dependent variables in research with disabled persons. Analyze and design experimental research; internal and external validity. Exposure to different designs with purpose of selection of appropriate design to match specific research questions.

**SPED 905 University-level Teaching Internship (3)**

*Prerequisites:* admission to education joint doctoral program. Mentoring support and guidance to doctoral students teaching at university level. Assignments begin at novice level as an observer, with advancement to planning, delivery of instruction including lectures, online activity, assessments and evaluation. CR/NC grading. May be repeated for a total of 6 units.

**SPED 906 University-level Research Internship (3)**

*Prerequisite:* admission to Special Education joint doctoral program. Mentored support and guidance in conducting research. Novice to advanced skills in research design, data collection and analysis, interpretation, and dissemination of findings. Enrollment in two consecutive semesters; may be repeated for a total of 6 units. CR/NC grading only.

**SPED 907 Learning and Development: The Influence of Disabilities (3)**

Development and learning theory applied to individuals with disabilities. Cognitive, language, and social-affective development throughout the lifespan. Interaction styles, learning styles, sequences, rate, modality, and continuity/discontinuity of development and learning.

**SPED 908 Directed Studies: Special Topics (1-3)**

*Prerequisite:* admission to joint doctoral program in special education. Provides opportunity for student to explore a special topic or problem either as an individual or with a group with special interests. May be repeated.

**SPED 909 Current Issues Special Education Policy and Practice (3)**

*Prerequisite:* admission to joint doctoral program. Joint doctoral program core seminar on contemporary policy issues, practice and research in special education.

**SPED 998 Doctoral Dissertation in Special Education (3)**

*Prerequisite:* advancement to candidacy. Independent research leading to the completion of the doctoral dissertation. Open only to students in the joint doctoral program in special education. May be repeated.

**SPECIAL MAJOR***Graduate Courses***SPMJ 894 Creative Work Project (3)**

*Prerequisite:* classified status in special major master's degree program. An original creative work project generally in a fine or applied arts area such as film, exhibit, performance, etc. It must be described in a written document that summarizes the project's significance, objectives, creative methodology employed, and a conclusion or recommendation. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**SPMJ 895 Field Study Project (3)**

*Prerequisite:* classified status in special major master's degree program. A field study or applied research project which results in a completed written work that as a minimum includes the project's significance, objectives, methodology, and conclusion or recommendation. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**SPMJ 898 Master's Thesis (3)**

*Prerequisites:* advancement to candidacy for the master's degree and consent of the chair of the candidate's committee. An intensive, systematic study of a significant topic or problem focusing on the theme of the problem of the special major. The final written work must evidence originality, critical and independent thinking, appropriate organization and methodology, clarity of purpose, thorough documentation, and relevant conclusions. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**SPMJ 899 Special Study (1-3)**

*Prerequisites:* classified status in special major master's degree program and consent of the graduate major adviser and the Dean of the Graduate Division. Intensive study of a problem or topic which is planned, developed, and completed under the direction of a graduate faculty member. Students must have demonstrated ability to do independent work. Enrollment by special petition.

**TECHNICAL AND PROFESSIONAL WRITING***Undergraduate Courses***TPW 200 Writing Practices in Professional Contexts (3) [GE]**

*Prerequisite:* ENG 114 or equivalent with grade of C or better. Introduction to writing practices common in professional workplaces. Analysis of how they influence, and are influenced by, workplace activities and cultures. Topics may include ethics, collaboration, internationalization, common forms, information design, and media choices.

**TPW 400 Fundamentals of Technical and Professional Writing -- GVAR (3)**

*Prerequisites:* ENG 214 or equivalent with grade of C or better. Forms, methods, standards, and issues central to the work of career writers. Students produce technical instructions, reports, promotions, and correspondence.

**TPW 470 Writing Professional Promotions (3)**

*Prerequisites:* ENG 214 or equivalent with grade of C or better; TPW student or consent of instructor. Developing documents for corporate communications, marketing, public relations, and development purposes. High-tech and non-profit applications.

**TPW 480 Writing Technical Documentation (3)**

*Prerequisites:* ENG 214 or equivalent with grade of C or better; TPW student or consent of instructor. Design and develop standard types of technical documentation such as project plans, process descriptions, procedures, tutorials, and usability tests. Topics include audience analysis, writing style, and best practices.

**TPW 490 Grantwriting (3)**

*Prerequisite:* ENG 214 or equivalent with grade of C or better; TPW student or consent of instructor. Practice in grant proposal writing and research. Requests from private non-profit organizations to various funding agencies. [CSL may be available; consult Index for page reference.]

**TPW 550 Professional Editing (3)**

*Prerequisite:* ENG 214 or equivalent with grade of C or better; TPW student or consent of instructor. Expectations for professional editing in the workplace. Development of specialized projects; practice in relevant techniques; application of professional skills, standards, ethics, and methods. Review of grammar, punctuation, and usage.

**TPW 555 Desktop Publishing for Professional Writers (3)**

*Prerequisite:* ENG 214 or equivalent with grade of C or better; TPW student or consent of instructor. Graphic design principles and process. Strategies for integrating text and graphics. Workshop teaches desktop publishing program. Required laboratory.

**TPW 585 Technical Writing Online (3)**

*Prerequisites:* TPW 400 or TPW 480 with grade of C or better. Standards and methods for designing, writing, producing technical information presented in electronic formats, such as online help, support websites, interactive demos. Learn basics of a widely used software tool. Required laboratory.

**TPW 600 Individual and Team Writing (3)**

*Prerequisites:* TPW 400, 550 and 555 with grades of C or better. Developing professional skills for project management, research, group work, genre analysis, writing, editing production, and presentation. Individual projects explore current tools, trends, and technologies. Teams develop professional materials for local non-profits. [CSL may be available; consult index for page reference.]

**TPW 685 Projects in the Teaching of Technical and Professional Writing (1-4)**

*Prerequisites:* completion, with grade of C or better, of course in which student will be aide. Requires consent of TPW adviser; limited to one student per course. Assist with computer laboratory teaching and complete related projects. May be repeated for a total of 4 units.

**TPW 695 Internship in Technical and Professional Writing (3)**

*Prerequisites:* five TPW core or skill elective courses (all with grades of C or better), including TPW 400, 550, and 555. Develop resume and portfolio. Practice job search and interviewing skills. Field experience: professional writing or editing, including structured supervision and evaluation by program faculty and placement sponsor. (Plus-minus letter grade only.)

**TPW 699 Special Study (1-4)**

*Prerequisites:* Five TPW core or skills elective courses, all with grades of C or better, including TPW 400, TPW 550, and TPW 555. Enrollment requires consent of TPW instructor. Special study in some aspect of technical and professional writing, performed under program faculty supervision. May be repeated for a maximum of 4 units.

**THEATRE ARTS***Undergraduate Courses***TH A 125 Movement I: Skills (3) [GE]**

Developing the actor's free and responsive body. Exercises, improvisations, and the performance of movement studies used to develop physical awareness and range of movement. May be repeated for a total of 6 units.

**TH A 130 Acting Workshop I (3) [GE]**

The craft of acting. Improvisations, theatre games, and exercises to develop flexibility, imagination, agility, and expressiveness.

**TH A 205 Introduction to Technical Theatre and Design (2)**

*Must be taken concurrently with TH A 310 or TH A 312 or TH A 313.* Theory and techniques in the areas of stage scenery, properties, costuming, make-up, lighting, and sound. Construction, rigging safety, tools, materials, and equipment.

**TH A 223 Voice I: Skills (3)**

The actor's free and responsive voice. Exercises and performance of simple texts used to develop the full range of voice and its coordination with body and emotion.

**TH A 230 Acting Workshop II (3)**

*Prerequisite:* TH A 130 or equivalent. Actor training: beginning scene study and greater emotional expressiveness. May be repeated for a total of 6 units on advisement.

**TH A 300 Theatre Imagination (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Various theatrical arts: acting, directing, scenic design, costuming, make-up, lighting; from the audience's and artist's point of view. Relation between theatrical experiences and issues of contemporary concern.

**TH A 304 Focus on Acting (1)**

*Topic to be specified in Class Schedule.* May be repeated for a total of 3 units when topics vary.

**TH A 305 Design Graphics for Stage and Screen (3)**

*Prerequisite:* TH A 205 or consent of instructor. Design theory and graphics techniques used by set, lighting, and costume designers to express creative ideas. Drafting, sketching, watercolor, mechanical perspective, model-building, scenic painting. (Formerly TH A 210.)

**TH A 310 Scenery and Properties Laboratory and Crew (2) [GE]**

*Must be taken concurrently with TH A 205, or consent of instructor.* Practical experiences in phases of technical work associated with university productions in the areas of scenery and properties. Classwork, 1 unit; laboratory, 1 unit. May be repeated for a total of 4 units.

**TH A 311 Summer Laboratory and Crew (2)**

*Prerequisite:* TH A 205 (may be taken concurrently) or consent of instructor. Practical experiences in phases of technical work associated with university productions in the areas of scenery, properties, costumes, lighting, and sound. May be repeated for a total of 4 units.

**TH A 312 Costuming and Makeup Laboratory and Crew (2) [GE]**

*Must be taken concurrently with TH A 205, or consent of instructor.* Practical experiences in phases of technical work associated with university productions in the areas of costuming and makeup. Classwork, 1 unit; laboratory, 1 unit.

**TH A 313 Lighting and Sound Laboratory and Crew (2) [GE]**

*Must be taken concurrently with TH A 205, or consent of instructor.* Practical experiences in technical work associated with university productions in the areas of lighting and sound. Classwork, 1 unit; laboratory, 1 unit.

**TH A 315 Theatre Production: Technical Laboratory and Crew (1) [GE]**

*Prerequisite: consent of instructor.* Practical experience in phases of technical work associated with university productions in the areas of scenery, scenic painting, properties, lighting, sound, costuming, or makeup. May be repeated for a total of 6 units.

**TH A 323 Light Board Operation (1)**

*Prerequisite: upper division standing.* Exploration and training in modern theatrical light board control. May be repeated for a total of 3 units.

**TH A 325 Advanced Lighting Practicum (1)**

*Prerequisites: TH A 313 or consent of instructor.* Advanced experiences in maintenance and repair of lighting equipment. May be repeated for a total three units. TH A 330 Acting Workshop III (3)

*Prerequisites: TH A 125, 223, and 230 plus an audition.* Creating roles through intensive scene study. Approaches to individual actor problems. May be repeated for a total of 6 units.

**TH A 332 Asian Acting for Western Actors (3)**

*Prerequisites: TH A 130 and audition or consent of instructor.* Principles of acting based on Asian models: physical training for "Western" actors. Models include: No, Kabuki, the Suzuki Method, and Beijing opera. May be repeated for a total of 6 units.

**TH A 333 Lyric Theatre Workshop (3) [GE]**

*Prerequisite: TH A 230 (may be concurrent) or consent of instructor.* Fundamental techniques of lyric theatre. Integration of acting, singing, and movement as utilized in music theatre performance, and in preparation for TH A 433.

**TH A 334 Scene Study for Opera (1)**

*Prerequisite: audition or permission of instructor; concurrent enrollment in MUS 376.* Practicum in acting technique for opera through scene study of non-musical and musical scenes. Creation of roles through characterization, style, technique, research. May be repeated for a total of 3 units.

**TH A 335 Rehearsal and Performance Technique (1)**

*Prerequisite: audition.* Work on a major production with rehearsal and performance as requirements. Laboratory. May be repeated as often as admitted by audition. May not be counted towards major or minor requirements in drama.

**TH A 340 Principles of Directing (3)**

*Prerequisites: TH A 230 and 310 or equivalents.* The qualifications of the director; the choice of plays for production; tryouts and methods of casting; preparation of the play script; building the rehearsal schedule; fundamentals of composition, movement, stage business, and characterization. Directing laboratory.

**TH A 341 History of Directing (3)**

*Prerequisite: TH A 130.* Introduction to the principal schools of stage direction as practiced by directors past and present. Lecture/demonstrations covering nascent stages of Duke of Saxe-Meiningen and Antoine, and culminating with contemporary artists such as Mnouchkine, Brook, Wilson.

**TH A 401 Theatre Backgrounds: 500 B.C.-1642 (3) [GE]**

*Prerequisite: must have completed 29 units. Enrollment priority given to theatre arts majors.* The physical structure, representative plays, personalities, practices, and theatre traditions from the Greek period to 1642.

**TH A 402 Theatre Backgrounds: 1642-1900 (3) [GE]**

*Prerequisite: must have completed 29 units. Enrollment priority given to theatre arts majors.* The physical structure, representative plays, personalities, practices, and theatre traditions from 1642-1900.

**TH A 403 Theatre Backgrounds: 1900-Present (3) [GE]**

*Prerequisite: must have completed 29 units. Enrollment priority given to theatre arts majors.* The physical structure, representative plays, personalities, practices, and theatre traditions from 1900 to the present.

**TH A 405 Writing about Theatre - GVAR (3)**

*Prerequisite: ENG 214 or equivalent with grade of C or better; theatre majors.* Instruction and practice in writing about theatre performance, theatre history, dramatic literature, design with literacy and precision. (ABC/NC grading only.)

**TH A 406 The Art of Comedy (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Techniques and materials of the art of comedy. Consideration of what makes people laugh, from simple jokes to intricate stage farces. Discussions with working comedians, comic actors, and writers.

**TH A 407 Popular Theatre/Popular Entertainment (3) [GE]**

*Prerequisite: sophomore standing or above.* Theatrical forms which have or once had a large appreciative public. These popular forms include: musical theatre, puppetry, melodrama, circus, farce, physical comedy, cabaret, Peking opera. Examined through lectures and discussion.

**TH A 408 Asian Plays and Performance Styles (3) [GE]**

*Prerequisite: upper division standing. Topic to be specified in Class Schedule.* May be repeated for a total of 6 units when topics vary.

**TH A 410 Scene Design for Stage and Screen (3)**

*Prerequisite: upper division standing.* Stage and production design for various forms of theatre, television, and cinema. Developing floor plans; methods of pictorial representation, scale drawings, color perspective, models. Scene painting laboratory. May be repeated for a total of 6 units.

**TH A 411 Costume Design for Stage and Screen (3)**

*Prerequisites: TH A 205 or consent of instructor, and TH A 305 and TH A 504 or 505.* Stage and film costume design. Character and script analysis. Theoretical design projects in various theatrical genres. Use of various media and styles of design presentation. Crew required.

**TH A 413 Stage Lighting Design I (3)**

*Prerequisite: TH A 205, 305, and 313.* Stage lighting design process. How a design is created. In-depth coverage of stage lighting fixtures, graphics, color, and angle in light, and the point of view in design. Crew required. May be repeated for a total of 6 units.

**TH A 415 Area Study in Theatre Production (1-3)**

*Prerequisites: TH A 310, 312, 313, 315, or equivalents.* Area and unit value to be specified in Class Schedule. May be repeated for a total of 9 units as topics vary.

**TH A 433 Musical Theatre Workshop (3)**

*Prerequisite: audition. Must be taken concurrently with MUS 311-312.* Practice in acting, singing, and dancing through participation in scenes from musical plays. Laboratory. May be repeated for a total of 6 units.

**TH A 435 Theatrical Audition (3)**

*Prerequisite: TH A 230 or equivalent.* Preparation for audition situations. Development of skills in sight-reading; selection, and rehearsal of appropriate pieces. Investigation of opportunities in professional and semi-professional theatre. Laboratory.

**TH A 440 Acting/Directing Workshop (3)**

*Prerequisites: for actors, TH A 220 and 230 plus an audition. For directors, TH A 340 and consent of instructor.* Extensive participation in the performance of student-directed scenes from plays of various types and periods. Laboratory. May be repeated for a total of 6 units.

**TH A 451 Storytelling and Folk Literature (3) [GE]**

*Prerequisite: upper division standing.* Methods and techniques of storytelling using selections from folktales, myths, legends, fables, and special types of poetry.

**TH A 452 Theatre in Education (3)**

*Prerequisite: upper division standing.* Methods of integrating theatre techniques into K-12 classroom curriculum. Selected applications from the following: improvisation, storytelling, and creative dramatics.

**TH A 454 The Business of Acting (3)**

*Prerequisite: TH A 230 or equivalent.* Preparation for seeking acting opportunities and theatre related careers. Business skills, agents, resumes, headshots; application of digital technology to improve monologue performance for auditions.

**TH A 460 Play Development Workshop (3)**

*Prerequisite: TH A 130 or 300 or equivalent.* Workshop in which playwrights, directors, actors, and designers develop and refine new theatre pieces by producing them. Studio development of new plays from existing drafts through staged readings to showcase productions.

**TH A 500 Explorations in Theatre Arts (3)**

*Topic to be specified in Class Schedule.* May be repeated as topics vary.

**TH A 504 Historical Styles for the Theater: Prehistory to 1700 (3)**

*Prerequisite: TH A 205 or consent of instructor.* World history of decor, costume, ornament, architecture, and theatrical design; periods with significant dramatic literature canons and/or influential cultural contributions. Visual research methods. (Paired with TH A 804. Students who have complete TH A 804 may not take TH A 504 for credit.)

**TH A 505 Historical Styles for the Theater: 1700-Present (3)**

*Prerequisite: TH A 205 or consent of instructor.* World history of decor, costume, ornament, architecture, and theatrical design; with periods with significant dramatic literature canons and/or influential cultural contributions: 1700-Present. Visual research methods. Paired with TH A 805. Students who have completed TH A 505 may not take TH A 805 for credit.

**TH A 510 Advanced Stagecraft (3)**

*Prerequisite:* TH A 310 or equivalent. Drafting stage carpentry and working with various construction materials; problems of stage rigging, stage machinery and special effects; organization and operation of the scene construction shop. May be repeated for a total of 6 units. Laboratory.

**TH A 515 Leadership and Organization for Production (3)**

*Prerequisites:* TH A 310, 312, 313, or equivalents. Application of principles of stage management to theatre productions; projects in organization and supervision of crews or production companies. Work on productions required. May be repeated for a total of 6 units. Classwork, 2 units; laboratory, 1 unit.

**TH A 523 Voice III: Techniques (1-3)**

*Prerequisite:* TH A 423 or equivalent. Area and unit value to be specified in Class Schedule. May be repeated as topics vary.

**TH A 525 Movement III: Techniques (1-3)**

*Prerequisite:* TH A 425 or equivalent. Area and unit value to be specified in Class Schedule. May be repeated as topics vary.

**TH A 530 Acting: The Play (3)**

*Prerequisites:* TH A 223, 230, 312, and audition. Performance techniques through detailed work on faculty-directed scripts; integration of theory and techniques of acting. Laboratory. May be repeated for a total of 9 units.

**TH A 531 Styles of Acting (3)**

*Prerequisite:* audition. Area of study to be specified in Class Schedule. May be repeated as areas vary. Laboratory.

**TH A 533 Advanced Musical Theatre Workshop (3)**

*Prerequisites:* TH A 433 and audition. Advanced practice in performance techniques for musical plays, with participation in selected scenes. May be repeated for a total of 6 units. Laboratory.

**TH A 557 Theatre Workshop II (1-3)**

*Prerequisites:* TH A 125, TH A 230, or equivalents. Topic and unit value to be specified in Class Schedule. May be repeated as topics vary.

**TH A 605 Writing and Performing Monologues (3)**

*Prerequisite:* TH A 130 (for CW majors: CW 301 & CW 511 or CW 512 or CW 513). Priority given to creative writing and theatre arts majors. Workshop in creation of contemporary performance monologues. Development of original pieces through writing, performance, and critique; study of artists in the field. (Cross listed with C W 605. May not be repeated under alternate prefix.)

**TH A 609 Theatre Design and Computers (3)**

*Prerequisites:* TH A 205; TH A 410 or 413. Exploration of the tools, programs, and applications involved with computer assisted design for lighting or scenery for the stage. May be repeated for a total of 6 units.

**TH A 610 Practicum in Theatre (3)**

*Prerequisite:* consent of supervising staff. Individual projects in costume, make-up, lighting, or scene design; properties, stagecraft; theatre administration or theatre architecture. May be repeated in a different area for a total of 12 units.

**TH A 611 Seminar in Costume Design and Technology (3)**

*Prerequisites:* TH A 411 and TH A 504 or TH A 505. Topic to be specified in Class Schedule. May be repeated for a total of 12 units as topics vary.

**TH A 613 Stage Lighting Design II (3)**

*Prerequisites:* TH A 205, 305, 313, and 413. Lighting designs for opera, dance, and theatre. Students design productions for class and productions for the university. May be repeated for a total of 6 units.

**TH A 615 Seminar in Technical Theatre Arts (3)**

*Prerequisites:* TH A 410, 413, 512, 519, or equivalents related to seminar topic and senior standing. Topic to be specified in Class Schedule. May be repeated for a total of 9 units as topics vary.

**TH A 657 Practicum in School and Community Drama (3)**

*Prerequisite:* departmental permission. Supervised fieldwork experience in conjunction with school and community performing arts program. May be repeated once by permission of supervisor.

**TH A 660 Advanced Play Development Workshop (3)**

*Prerequisites:* TH A 130 or TH A 340 or TH A 460, and consent of instructor. Development of original plays by students, through rehearsal and presentation of staged readings. New plays: the process and technique of mounting the staged reading for playwrights, directors, and dramaturgs.

**TH A 671 Stage Management (3)**

*Prerequisite:* any two of the following: TH A 310, TH A 312, TH A 313, or equivalent. Advanced theoretical and practical application of stage management techniques; examination of the resources and responsibilities of a successful stage manager at SF State and in the professional arena.

**TH A 685 Projects in the Teaching of Theatre Arts (1-3)**

*Prerequisites:* TH A 130, completion of course in instructional subject matter; and consent of instructor. Open only to majors in Theatre Arts. The teaching practicum provides students with an opportunity to serve as an instructional aide, participate in the teaching of a regular instructional-related Theatre Arts class, and learn about educational theatre through fieldwork. May be repeated for a total of 4 units.

**TH A 690 Brown Bag Theatre Company (5)**

*Prerequisites:* TH A 130, 230, 223, plus audition. Must be taken concurrently with TH A 330. Intensive study and studio presentation of 14 different texts during the semester. May be repeated once.

**TH A 691 Advanced Multicultural Production Workshop (3)**

*Prerequisites:* TH A 230, 310, 312, or equivalents, plus interview/audition. Participation in a performing company which uses multicultural, multi-ethnic theatrical material. Experiences in all aspects of play production, with attention to demands of non-Western European repertory. May be repeated for a total of 6 units.

**TH A 699 Special Study (1-3)**

Special projects/independent study of some aspect of the field, under supervision of a faculty member of the department. May be repeated.

**Graduate Courses****TH A 700 Theatre Research and Writing Practicum (3)**

Introduction to theatre research methods and the writing of essays about theatre. Students write and discuss papers that reflect advanced skills in composition, research, and criticism.

**TH A 701 Seminar: Theatrical History and Historiography (3)**

*Prerequisite:* TH A 401 or ENG 570 or ENG 571 or equivalent. Selected topics from theatrical history. Special emphasis on the relation between the theatre and its cultural contexts, the uses of theatrical history in contemporary production, and on the techniques of production reconstruction.

**TH A 702 Shakespeare: Text and Performance Seminar (3)**

*Prerequisite:* TH A 401 or ENG 570, or equivalent. An exploration of representative Shakespearean texts and their expressions as performance.

**TH A 703 Seminar: The American Stage (3)**

*Prerequisite:* TH A 402 or ENG 574 or equivalent. The American tradition in the theatre; major plays and productions from O'Neill to the present.

**TH A 704 Seminar: Contemporary Plays and Performance (3)**

*Prerequisite:* TH A 402 or ENG 574 or equivalent. Playwrights and production styles in the contemporary theatre. The "new naturalism," performance art, and post-modernism.

**TH A 705 Seminar: Performance and Production Theory (3)**

*Prerequisite:* undergraduate background as appropriate. Topic to be specified in Class Schedule. May be repeated as topics vary.

**TH A 707 Thesis Proposal (1)**

Completion of a thesis proposal or creative work project proposal with a faculty adviser. Must be completed satisfactorily prior to taking TH A 894 or TH A 898.

**TH A 709 Seminar: Dramatic Literature and Criticism (3)**

*Prerequisite:* a graduate course in theatre backgrounds and/or dramatic literature. Contemporary approaches in dramatic criticism applied to selected works of dramatic literature.

**TH A 711 Collaborative Processes in Theatre (3)**

*Prerequisites:* classified M.F.A. status in theatre arts or consent of instructor. Graduate colloquium addressing the processes of theatrical collaboration.

**TH A 712 Portfolio Development (1)**

*Prerequisites:* TH A 750, TH A 610/810, upper division or graduate standing, and consent of instructor. Supervised development of materials for design/technical theatre portfolios, workshops in presentation, interview techniques. Introduction to entertainment industry business practices.

**TH A 732 Seminar: Topics in Asian Theatre (3)**

*Prerequisite:* classified graduate status in Theatre Arts program or consent of instructor. Close examination of theatrical theory and practice in selected Asian forms, including but not limited to Noh, Kabuki, and Beijing Opera. May be repeated for a total of 6 units.

**TH A 740 Play Production Concepts (3)**

*Prerequisite:* classified M.F.A. status in theatre arts or consent of instructor. Methods and principles that encourage a conceptual approach toward play production. Formal techniques and thematic studies that provide the theatre practitioner with a coherent perspective for the interpretation of dramatic material.



**TH A 750 Design Studio (3)**

*Prerequisites:* classified graduate status in Theatre Arts and consent of instructor. Tutorial studio exploration of design problems in theatre arts/drama. May be repeated for a total of 9 units.

**TH A 757 Internship in Theatre (3)**

*Prerequisites:* final year in M.F.A. in theatre arts and departmental permission. Assignment, under faculty supervision, to professional production with Bay Area theatre companies, performing arts agencies, or production organizations. May be repeated for a total of 6 units.

**TH A 804 Historical Styles for the Theatre: Prehistory - 1700 (3)**

*Prerequisite:* graduate standing; TH A 401, 402, or 403 or equivalent; or consent of instructor. For description, see TH A 504. Paired with TH A 504. Students who have completed 504 may not take 804 for credit.

**TH A 805 Historical Styles for the Theater: 1700-Present (3)**

*Prerequisite:* TH A 205 or consent of instructor. For course description, see TH A 505. Paired with TH A 505. Students who have completed TH A 805 may not take TH A 505 for credit.

**TH A 810 Advanced Practicum in Theatre (3)**

*Prerequisites:* classified graduate status in theatre arts and consent of instructor. Development, solution, and presentation of design problems for professional theatre.

**TH A 852 Directed Experience in Drama Education (3)**

*Prerequisite:* departmental permission. Supervised observation and directed experience in the teaching of drama courses; analysis of teaching problems. May be repeated for a total of 6 units.

**TH A 894 Creative Work Project (3)**

*Prerequisite:* consent of graduate major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**TH A 896 Directed Readings for M.A. Drama Comprehensive Examination (3)**

*Prerequisites:* consent of instructor and completion of two core courses in M.A. Drama program. Preparation for a culminating experience in drama through a series of advanced readings in dramatic literature and theory, theatre history, and performance studies that are completed by the taking of an examination. (CR/NC only)

**TH A 897 Research for Thesis and Creative Work Projects in Drama (3)**

*Prerequisites:* consent of instructor and completion of two core graduate seminars in M.A. Drama program. Research and completion of a thesis or creative work project proposal with faculty guidance and instruction. Includes reading of dramatic literature, choosing and developing a topic in detailed written statement. (CR/NC only)

**TH A 898 Master's Thesis (3)**

*Prerequisite:* consent of graduate major adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**URBAN STUDIES AND PLANNING***Undergraduate Courses***USP 200 Changing Cities (3) [GE]**

Changing cities in a global world. Multi-disciplinary social science perspectives on city life. Social, cultural, and ethnic diversity. Metropolitan regions. Strategies for creating social justice and environmental sustainability. Experiencing the city. (Cross listed with SOC 200. May not be repeated under alternate prefix.)

**USP 400 Dynamics of the American City (3) [GE]**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. Historical development and contemporary condition of urban America, city planning, federal-city relations; dynamics of urban policy making; class, gender, race and ethnicity in urban America. (Cross listed with HIST 489. May not be repeated under alternate prefix.)

**USP 401 Seminar in Urban Studies and Planning - GVAR (3)**

*Prerequisite:* ENG 214 or equivalent with a grade of C or better. Upper division standing, USP major or minor, or consent of instructor. Lectures and discussion of seminal basic and contemporary writings on the most important topics in urban studies and planning. Intensive practice in written and oral communication skills. (ABC/NC grading only.)

**USP 432 Urban Geography (4) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with GEOG 432. For course description, see GEOG 432. (May not be repeated under alternate prefix.)

**USP 433 Urban Transportation (4) [GE]**

Cross listed with GEOG 433. For course description, see GEOG 433. (May not be repeated under alternate prefix.)

**USP 456 Urban Community Organizing and Citizen Action (3)**

*Prerequisite:* S W 400, S W 401, S W 402 or consent of instructor. Cross listed with S W 456. For course description, see S W 456. (May not be repeated under alternate prefix.)

**USP 470 City in a Global Society (4) [GE]**

*Prerequisites:* completion of GE Segment I requirements including ENG 214 or equivalent and upper division standing. Cross listed with SOC 480. For course description, see SOC 480. (May not be repeated under alternate prefix.)

**USP 475 Selected Issues in Urban Studies (3-4)**

*Prerequisites:* upper division standing and consent of instructor. Topic to be specified in Class Schedule. Special topics; may be repeated for a total of 8 units when topics vary.

**USP 480 Introduction to Urban Policy and Analysis (4) [GE]**

*Prerequisite:* upper division standing. Cross listed with PLSI 480. For course description, see PLSI 480. (May not be repeated under alternate prefix.)

**USP 485 San Francisco Political Issues (4)**

*Prerequisite:* upper division standing. Cross listed with PLSI 475. For course description, see PLSI 475. (May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**USP 492 Research Methods (4)**

*Prerequisite:* upper division standing. Problem formulation; research design; data collection, organization and analysis; introduction to computer generated analyses; report writing and presentation; applied research. (Cross listed with PLSI 492. May not be repeated under alternate prefix.)

**USP 493 Data Analysis (4)**

*Prerequisite:* URBS/PLSI 492 or equivalent. Cross listed with PLSI 493. For course description, see PLSI 493. (May not be repeated under alternate prefix.)

**USP 512 Urban Politics and Community Power (4)**

*Prerequisite:* upper division standing. Cross listed with PLSI 512. For course description, see PLSI 512. (May not be repeated under alternate prefix.)

**USP 512 Urban Politics and Community Power - GVAR (4)**

*Prerequisites:* ENG 214 or equivalent with grade of C- or better; upper division standing; PLSI/USP majors or consent of instructor. Cross listed with PLSI 512GW. For course description, see PLSI 512GW. (May not be repeated under alternate prefix.)

**USP 513 Politics, Law, and the Urban Environment (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Law and the legal system as mechanisms for regulating urban development and protecting the environment; intervention in development and land use; environmental decay, conservation of open space, other related resources. (Cross listed with GEOG 668 and PLSI 513. May not be repeated under alternate prefix.)

**USP 514 Sustainable Development in Cities (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Analysis of development and sustainable development theory and practice, the role international lending institutions, sustainable planning and management of urban infrastructures, and the role appropriate technologies. Case studies of sustainable development planning and policy in Africa, Latin America, Asia, Europe, Caribbean and USA.

**USP 515 Environmental Justice: Race, Poverty and the Environment (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Examination of environmental justice concepts, research and policies; understanding how toxins and other environmental assaults differentially affect communities and groups in USA and abroad; focus on research, ethnic, class dynamics; environmental justice movements, public policy and planning. (Cross listed with GEOG 667. May not be repeated under alternate prefix.)

**USP 530 Alternative Urban Futures (3) [GE]**

*Prerequisites:* ENG 214 or equivalent and upper division standing. Examines future of cities through analysis of current trends and policies; implications for quality of life and natural resources; planning and policy analysis for future of cities and urban populations; focus on problems and solutions.

**USP 535 Urban Economics (3) [GE]**

Cross listed with ECON 535. For course description, see ECON 535. (May not be repeated under alternate prefix.)

**USP 555 Urban Anthropology (3) [GE]**

*Prerequisites:* one course in cultural anthropology and upper division standing or URBS 400. Cross listed with ANTH 555. For course description, see ANTH 555. (May not be repeated under alternate prefix.)

**USP 557 Ethnography of the Inner City (4)**

*Prerequisites:* USP 555 or consent of instructor. Cross listed with ANTH 557. For course description, see ANTH 557. (May not be repeated under alternate prefix.)

**USP 560 Urban Poverty and Policy (4) [GE]**

*Prerequisite:* ENG 214 or equivalent. Nature and causes of urban poverty. Theories of poverty and their policy implications. Role of education, employment and family status; gender and race; metropolitan location; global economic restructuring; anti-poverty policies and proposals; development of policy alternatives. (Cross listed with PLSI 560. May not be repeated under alternate prefix.)

**USP 565 Social Policy and Family Systems (4) [GE]**

*Prerequisite:* upper division standing. Background and analytical tools to understand impact of past, current and proposed public policies on families in the U.S.; role of the state; analysis of specific policy areas—i.e. healthcare, income and employment, poverty, taxation, medical rights, education, violence; legal rights of families.

**USP 580 Housing Policy and Planning (3) [GE]**

*Prerequisite:* upper division standing. Social, economic, and technical aspects of urban housing; market analysis, housing production, tenant/landlord relations, finance, government regulation, subsidies. (Cross listed with PLSI 580. May not be repeated under alternate prefix.)

**USP 603 Public Service Internships (3)**

*Prerequisites:* upper division standing and consent of instructor. Must be taken concurrently with USP 604. Cross listed with PLSI 603. For course description, see PLSI 603. (May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**USP 604 Internship Seminar (1)**

Must be taken concurrently with USP 603. Cross listed with PLSI 604. For course description, see PLSI 604. (May not be repeated under alternate prefix.) [CSL may be available; consult index for page reference.]

**USP 651 San Francisco Bay Area Environmental Issues (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. An introduction to the mission and work of environmental management organizations. Managing our air, water, soil, wildlife, and aesthetic resources. Emphasis is placed on land use and transportation concepts. Field projects are integral to the course. Classwork, three units; laboratory, one unit. (Cross listed with GEOG 651. May not be repeated under alternate prefix.)

**USP 652 Environmental Impact Analysis (4)**

*Prerequisite:* GEOG 103 or consent of instructor. Cross listed with GEOG 652. For course description, see GEOG 652. (May not be repeated under alternate prefix.)

**USP 658 Land Use Planning (4)**

*Prerequisite:* ENG 214 or equivalent. Cross listed with GEOG 658. For course description, see GEOG 658. (May not be repeated under alternate prefix.)

**USP 660 The Roles of Non-profit Organizations in Urban Life (3) [GE]**

*Prerequisite:* senior standing. Cross listed with S W 660. For course description, see S W 660. (May not be repeated under alternate prefix.)

**USP 680 Senior Seminar (4)**

*Prerequisites:* USP 401, 492, 493, 480 or 658, 603, and 604 or consent of instructor. Practicum in policy and planning. Projects for clients outside the university. Preparation for professional work or continued study upon graduation. Open to seniors in urban studies after completing sufficient USP core requirements. Classwork, 3 units; activity, 1 unit. [CSL may be available; consult index for page reference.]

**USP 685 Projects in the Teaching of Urban Studies (1-4)**

*Prerequisites:* consent of instructor and completion of course (or equivalent) in which student will be assisting. Students serve as instructional aides in order to enrich their knowledge of the subject and the general processes of learning and teaching. Help develop course materials, plan and review course structure and activities, and provide assistance to students in class activities such as writing assignments, research projects, and fieldwork. May be repeated for a total of 4 units.

**USP 686 Field Work in Urban Studies (1-4)**

Supervised field research including preparation of policy papers, developing databases on local issues, and applied policy work. Editorial and production work for annual Urban Studies publications: Urban Action and the Alumni Survey. May be repeated for a total of 8 units.

**USP 699 Independent Study (1-3)**

*Prerequisite:* consent of instructor. Supervised individual research project of special interest to develop research capability.

**URBAN STUDIES**

See *Urban Studies and Planning*

**WOMEN AND GENDER STUDIES***Undergraduate Courses***WGS 150 Women and Gender in U.S. History and Society (3) [USH]**

Historical development of institutions and ideals and the evolution of economic, political, and social processes in the U.S. since colonization; roles and status of women. (Fulfills the U.S. History component of the U.S. History and Government Requirement)

**WGS 160 Gender, Politics, and Citizenship (3) [USG,CSLG]**

U.S. political ideals, institutions, and processes; implications for gender-based contributions to public life. (Fulfills the U.S. Government and California State and Local Government components of the U.S. History and Government Requirement)

**WGS 200 Introduction to Women and Gender Studies (3) [GE]**

Introduction to origins, purpose, subject matter, and methods of women and gender studies and the feminist perspectives on a range of social issues affecting women.

**WGS 300 Gender, Race, and Nation - GWAR (3)**

*Prerequisites:* WGS 200, ENG 214 or equivalent with a grade of C- or better; restricted to WGS majors and minors. Intersectional, transnational, transdisciplinary analysis of women and gender. Topics include U.S. women of color feminisms and contemporary social justice movements. (formerly WGS 201) ABC/NR grading only.

**WGS 301 Women, Gender and Community (3)**

*Prerequisite:* upper division standing or consent of instructor. Discussion of community as a concept, as well as specific communities that address women's or gender issues. Topics may include imagined communities, scholarly communities, community activism, coalition politics, and other forms of feminist affinity and networking.

**WGS 303 Women as Creative Agents (3) [GE]**

*Prerequisite:* ENG 114. Personal expression and self-definition through creative experience in various media: drawing, painting, photography, poetry, sculpture, and writing. Work of women artists, filmmakers, poets.

**WGS 304 Gender and Popular Culture (3)**

*Prerequisite:* ENG 214. The question of representation; that is, the formation of culture in relation to women and gender. How women and gender are constructed, narrated, and represented in both written and visual cultures.

**WGS 305 Women and Gender Studies Lecture Series (3)**

*Prerequisite:* ENG 214 or equivalent. Lecture series provides a sampling of feminist perspectives on scholarship, research, and activism including presentations, film screenings, and academic lectures on current theories and topics in the field of women and gender studies. Paired with WGS 805. Students who have completed WGS 305 may not take WGS 805 later for credit.

**WGS 400 Research Methods in Women and Gender Studies (3)**

*Prerequisite:* ENG 214 or equivalent. Women and gender: feminist knowledge, review of methodological problems, and the understanding of the importance of power relations in the formation of knowledge.

**WGS 445 Gendered Borders: Latinas and Globalization (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with LTNS 445 [formerly RAZA 445]. For course description, see LTNS 445. (May not be repeated under alternate prefix.)

**WGS 485 Women and Media (3) [GE]**

*Prerequisite:* upper division standing. Cross listed with BECA 485. For course description, see BECA 485. (May not be repeated under alternate prefix.)

**WGS 505 Gender, Sexuality, and Latino Communities (3)**

*Prerequisite:* upper division standing or consent of instructor. Cross listed with LTNS 505 [formerly RAZA 505]. For course description, see LTNS 505. (May not be repeated under alternate prefix.)

**WGS 510 Special Issues of Women and Violence (3)**

Topic to be specified in Class Schedule. May be repeated as topics vary.

**WGS 512 Feminist Approaches to Queer Identities and Communities (3)**

*Prerequisite:* ENG 214 or equivalent. Examination of queer identities in cultural and historical contexts, using a transnational feminist approach. Presents a challenge to Western assumptions about sexual identities and analysis of sexuality through nation, gender, race and class.

**WGS 514 Women and the Prison Industrial Complex (3)**

*Prerequisite:* ENG 114 or equivalent. Incarceration of women and children in prisons, jails, juvenile and mental institutions. Treatment on the basis of race, class, and ethnicity; reforms or alternatives to incarceration.

**WGS 516 Gender and Visual Culture (3)**

*Prerequisite:* English 214 or equivalent. Using an interdisciplinary/transnational perspective, this course will examine how gender is understood through visual registers and how visual culture depends upon ideas about gender. Key authors, concepts and methodologies in the field of visual studies will be covered.

**WGS 530 Women and Gender Studies and Social Theory (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**WGS 533 Women, Men, and Cultural Change (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Film, literature, small group discussion/dynamics used to help women and men become better co-workers, parents, political allies, friends, lovers. Re-educates women and men of different cultures to new understandings of their interpersonal/social relations.

**WGS 534 Gender and the Law (3)**

*Prerequisite:* ENG 114 or equivalent. Study of feminist legal thought and analysis of the role law plays in maintaining or transforming gendered societies. Topics include family law, LGBT rights, and reproductive rights, affirmative action and equal protection laws, and law, culture, and international human rights. (Cross listed with S S 345. May not be repeated under alternate prefix.)

**WGS 535 History of Women in Latin America (3)**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST 535 and LTNS 533 [formerly RAZA 533.] For course description, see HIST 535. (May not be repeated under alternate prefix.)

**WGS 536 Gender, Globalization and Women's Human Rights (3)**

*Prerequisite:* English 214 or equivalent. Critical examination of the historical and political rise of women's human rights as a national policy issue. Analyzes the assumptions of how gender and race inform ideas of women's human rights and globalization.

**WGS 541 Women Writers and Social Change (3)**

*Prerequisite:* ENG 214 or equivalent. Relationship between women's literature and women's participation, as activists and theorists, in movements for progressive social change.

**WGS 542 Gender and Popular Music (3)**

*Prerequisite:* ENG 214 or equivalent. Focuses on how music can restate and resist notions of gender, race, sexuality and nationality. Music styles may include blues, jazz, folk, corridos, country, bhangra, disco, punk, rock, salsa and hip-hop. Analyzes popular music in the U. S. and internationally.

**WGS 544 Feminist Literary Criticism (3)**

*Prerequisite:* ENG 114 or equivalent. Origins, methods, and functions of feminist literary criticism; feminist critical analysis to specific works of literature by women and men. (Cross listed with ENG 613. May not be repeated under alternate prefix.)

**WGS 546 Twentieth Century American Jewish Women Writers (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Cross listed with ENG/JS 546. For course description, see ENG 546. (May not be repeated under alternate prefix.)

**WGS 548 Literature by U.S. Women of Color (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Literature by African American, Latina, Asian American, and Native American women. Literary forms, styles, images, and themes in relation to racism, sexism, homophobia, ableism, and daily life in the U.S.

**WGS 550 Special Studies in Lesbian Lives (3)**

*Topic to be specified in Class Schedule.* May be repeated when topics vary.

**WGS 551 Queer Literatures and Media (3) [GE]**

*Prerequisite:* ENG 214 or equivalent, or consent of instructor. Queer literature and media productions from a feminist and transnational perspective; intersectional analysis of gender, race, class, sexuality, and citizenship to examine fiction, film, cultural and historical texts. (Cross listed with SXS 551. May not be repeated under alternate prefix.)

**WGS 552 Transgender Identities and Communities (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Examination of transgender and transsexual identities in cultural and historical contexts using a transnational feminist approach. Presents a challenge to Western gender binaries and analyzes gender through nation, race, sexuality, and class.

**WGS 554 Gender and Global Migration (3) [GE]**

*Prerequisite:* ENG 214 or equivalent and WGS 200. Study of gender, migration, and labor. Causes, conditions, and challenges of displacement. Paired with WGS 754. Students who have completed WGS 754 may not take WGS 554 for credit.

**WGS 561 Women, Ethnicity, and Social Movements (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Themes include inter-raciality and multi-ethnicity in the history, culture, and contemporary lives of women of color, including African American, Native American, Asian American, and Latina women.

**WGS 562 History of African American Women (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Experiences of Black women under slavery; in their pioneering roles as industrial, domestic, and agricultural workers; and in their varied political, social, and educational roles from the 19th century to present.

**WGS 564 Women Writers and the Politics of Decolonization (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Literature by women writers which addresses histories of colonialism and/or imperialism. Emphasis on intersections of gendered political, economic, and social transformations. Paired with WGS 764. Students who have completed WGS 764 may not take WGS 564 for credit.

**WGS 565 Muslim Feminisms (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Examination of differences/similarities in women's lives in Muslim/Arab world, including diaspora in Europe and North America; minorities in Arab Middle East. Analysis includes issues of gender as relates to nationalism, religion, and culture.

**WGS 566 Gender and Modernity in the Muslim and Arab Worlds (3)**

*Prerequisite:* ENG 214 or equivalent. Investigates implications of the project of modernity/modernization for gender and sexuality in the Muslim and Arab worlds. By interrogating dichotomies that oppose tradition to modernity, examines the multifaceted ways in which gender identities are produced historically. (Cross listed with ETHS 566. May not be repeated under alternate prefix.)

**WGS 570 Women, Gender, Policy, and Justice (3)**

*Prerequisite:* ENG 214 or equivalent. Examination of a specific issue in public policy, its role in the formation of gender inequities, and its impact on the position of women in the economy. Paired with WGS 770. Students who have completed WGS 570 may not take WGS 770 for credit.

**WGS 571 Gender, Poverty, and Globalization (3)**

*Prerequisite:* ENG 214 or equivalent. Understanding of globalization and its relation to poverty, work with a community organization concerned with these issues. Paired with WGS 771. Students who take WGS 571 may not take WGS 771 later for credit. [CSL may be available; consult index for page reference.]

**WGS 575 History of Women in China and Japan (3) [GE]**

*Prerequisite:* ENG 214 or equivalent; upper division standing or consent of instructor. Cross listed with HIST 575. For course description, see HIST 575. (May not be repeated under alternate prefix.)

**WGS 578 Women, Globalization, and Ecology (3)**

*Prerequisite:* ENG 214 or equivalent. Ecological issues concerning women and gender from a third world women's perspective: environmental racism and justice, ecology, health, development, and international human rights. Paired with WGS 778. Students who have completed WGS 578 may not take WGS 778 for credit.

**WGS 590 Special Issues in Women Studies (3)**

*Topic to be specified in Class Schedule.* May be repeated when topics vary.

**WGS 593 Gender, Health, and the Environment (3)**

*Prerequisite:* ENG 214 or equivalent. Emergence of "western medicine" as primary paradigm, and the consequences of socio-political formations to women's health. Emergence of "holistic" treatments, "traditional" medicine from indigenous and pre-colonial perspectives, and oppositional health practices emerging from environmental movements.

**WGS 595 Anthropology of Women (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Cross listed with ANTH/CST 590. For course description, see ANTH 590. (May not be repeated under alternate prefix.)

**WGS 601 Cultures of Consumption: Gender, Race, and Neoliberalism (3)**

*Prerequisite:* ENG 214 or equivalent. Analysis of how neoliberal service economies, particularly urban tourism, reconfigure and put to work race and gender meanings. Focus on the production of new modes of consumption including racialized tourist sites, cosmopolitan adventures, and gay weddings. Paired with WGS 801. Students who have taken WGS 801 may not take WGS 601 for credit. (Plus-minus ABC/NC [undergraduate] or plus-minus AB/NC [graduate].)

**WGS 602 Feminist Cultural Activism (3)**

*Prerequisite:* ENG 214 or equivalent. Relationship between cultural production and social change. Focus on cultural activism media through gender, sexuality, and other historical norms to assess feminist implications of their modes of resistance. Paired with WGS 802. Students who have taken WGS 802 may not take WGS 602 for credit. (Plus-minus ABC/NC [undergraduate] or plus-minus AB/NC [graduate].)

**WGS 611 Theories of Female Sexuality (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Relationship between female sexuality and its historical, social, and ideological contexts focusing on trends and issues in current feminist thought. Topics include critical race studies, lesbian/gay/bisexual/transgender studies, transnational feminism, reproductive and non-reproductive sexualities.

**WGS 621 Feminist Theories (3)**

*Prerequisites:* ENG 114 or equivalent. Analysis of feminist theories and practices internationally and historically; examination of theories of gender, race, class, sexuality, identity, community, modernity, and nation. Study of methods, histories, and implications of feminist thought in various academic, cultural, and political contexts.

**WGS 685 Projects in the Teaching of Women and Gender Studies (1-4)**

*Prerequisites:* advanced undergraduate standing in women and gender studies and approval of supervising instructor and department. Grade of B or better in course in which student will be an instructional aide. Teaching experience in women and gender studies through assigned instructional projects in a classroom and under the guidance of a member of the faculty. Training in pedagogical principles including supervised classroom teaching activities.

**WGS 690 Senior Seminar (3)**

*Prerequisites:* WGS 200; WGS 201 or WGS 300GW; ENG 214 or equivalent. Focuses on enabling students to evaluate their learning progress by creating a portfolio which includes writing a paper analyzing their work. Students collaborate to produce a publication.

**WGS 698 Work Study in Feminist Projects (1-3)**

Supervised community or university service that relates to the women studies major, individual women and gender studies courses, or the student's own major. May be repeated for a total of 9 units. [CSL may be available; consult index for page reference.]

**WGS 699 Special Study (1-3)**

*Prerequisite:* ENG 114 or equivalent. Special study in some aspect of feminism or women and gender studies, performed under department faculty supervision. Enrollment by petition. Repeatable for credit.

*Graduate Courses***WGS 700 Introduction to Graduate Study (3)**

*Prerequisite:* WGS MA admitted student. Origins and current status of women and gender studies as a field of knowledge. Relationships between gender and epistemology; feminist critiques and transformations of research methodologies. Identification of major works and issues in feminist scholarship.

**WGS 710 Feminist Social Movements (3)**

*Prerequisite:* WGS 700 or consent of instructor. Social stratification and the state; political marginalization of women. Egalitarianism in the legacy of women's participation in society. Colonial transformations and the politics/culture of resistance. Turning points in women's activism. Impact of race/class inequities.

**WGS 712 Queer Theories (3)**

*Prerequisite:* WGS 700 or consent of instructor. Examination of queer theory from a transnational feminist approach; production of sexuality within western epistemology; politics of sexual deviance and the racialization of sexual identities from socio-economic and cultural perspectives.

**WGS 713 Intellectual Genealogies (3)**

*Prerequisite:* WGS 700 or consent of instructor (WGS 700 may be taken concurrently). Specific issues, topics, or theoretical tendencies in current feminist discussion and debate; implications of theory for social practice.

**WGS 720 Feminist Pedagogies (3)**

*Prerequisite:* WGS 700 or consent of instructor. Examines feminist critical education theories and praxis with a transnational lens. Topics may include history of the University and gender tactics of colonialism; intersectional analysis of disability studies; theory/praxis debates; pedagogies of the oppressed; and teaching transgression.

**WGS 747 Feminist Criticisms (3)**

*Prerequisite:* WGS 700 or consent of instructor. Diverse feminist theoretical and critical approaches in social contexts; canons; female aesthetics; social, linguistic, and psychoanalytic approaches. (Cross listed with ENG 747. May not be repeated under alternate prefix.)

**WGS 752 Feminism, Race, and the Politics of Difference (3)**

*Prerequisite:* WGS 700 or consent of instructor. Considers the "difference politics" that emerged out of the 1960s and 1970s Civil Rights and women's movement activism. Explores how these politics frame understanding of difference and justice; intersectionality, pluralism, multiculturalism, and post-racialism.

**WGS 754 Gender and Global Migration (3)**

*Prerequisite:* WGS 700 or consent of instructor. Paired with WGS 554. For course description, see WGS 554. Students who have completed WGS 554 may not take WGS 754 for credit.

**WGS 760 Issues in Women's Literature and Culture (3)**

*Prerequisite:* WGS 700 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**WGS 762 Women, Labor, and Power (3)**

*Prerequisite:* WGS 700 or consent of instructor. Transnational examination of the role of work in women's lives. Focus on historical, literary, and ethnographic narratives of survival strategies, protest, and labor organizing from nineteenth-century to present.

**WGS 764 Women Writers and the Politics of Decolonization (3)**

*Prerequisite:* WGS 700 or consent of instructor. Paired with WGS 564. For course description, see WGS 564. Students who have completed WGS 564 may not take WGS 764 for credit.

**WGS 766 Gender and Modernity in the Muslim and Arab Worlds (3)**

*Prerequisite:* WGS 700 or consent of instructor. Investigates implications of the project of modernity/modernization for gender and sexuality in the Muslim and Arab worlds. By interrogating dichotomies that oppose tradition to modernity, examines the multifaceted ways in which gender identities are produced historically.

**WGS 770 Women, Gender, Policy, and Justice (3)**

*Prerequisite:* WGS 700 or consent of instructor. Paired with WGS 570. For course description, see WGS 570. Students who have completed WGS 570 may not take WGS 770 for credit.

**WGS 771 Gender, Poverty, and Globalization (3)**

*Prerequisite:* WGS 700 or consent of instructor. Paired with WGS 571. For course description, see WGS 571. Students who have completed WGS 571 may not take WGS 771 for credit. [CSL may be available; consult index for page reference.]

**WGS 778 Women, Globalization, and Ecology (3)**

*Prerequisite:* WGS 700 or consent of instructor. Paired with WGS 578. For course description, see WGS 578. Students who have completed WGS 578 may not take WGS 778 for credit.

**WGS 785 Graduate Projects in the Teaching of Women and Gender Studies (3)**

*Prerequisite:* WGS 700 or consent of instructor. Provides practical learning experience and knowledge of pedagogical strategies and principles of teaching and learning women and gender studies subject matter.

**WGS 801 Cultures of Consumption: Gender, Race, and Neoliberalism (3)**

*Prerequisite:* ENG 214 or equivalent. Paired with WGS 601. For course description, see WGS 601. Students who have taken WGS 601 may not take WGS 801 for credit. (Plus-minus ABC/NC [undergraduate] or plus-minus AB/NC [graduate].)

**WGS 802 Feminist Cultural Activism (3)**

*Prerequisite:* ENG 214 or equivalent. Paired with WGS 602. For course description, see WGS 602. Students who have taken WGS 602 may not take WGS 802 for credit. (Plus-minus ABC/NC [undergraduate] or plus-minus AB/NC [graduate].)

**WGS 805 Women and Gender Studies Lecture Series (3)**

*Prerequisite:* WGS 700 or consent of instructor. Paired with WGS 305. For course description, see WGS 305. Students who have completed WGS 305 may not take WGS 805 for credit.

**WGS 820 Feminist Research Methods (3)**

*Prerequisite:* graduate status, WGS 700, or consent of instructor. Social research and feminism. Analyze research studies, develop skills, and develop their master's projects.

**WGS 894 Creative Work Project (3)**

*Prerequisites:* WGS 700, advancement to candidacy, and approval of the graduate major adviser. An original creative work. Projects must be described in a written document that summarizes the project's relation to other work in the area, its rationale, its significance, and its creative methodologies. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**WGS 895 Field Study Project (3)**

*Prerequisites:* WGS 700, advancement to candidacy, and approval of the graduate major adviser. A field study or applied research project resulting in a completed written work that includes the project's significance, objectives, methodology, and conclusions or recommendations. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**WGS 898 Master's Thesis (3)**

*Prerequisites:* WGS 700, advancement to candidacy, and approval of graduate major adviser. Intensive study of a topic or issue within the field of women and gender studies, culminating in a written thesis showing independent thinking, appropriate methodology and organization, clarity of purpose, thorough documentation, and relevant conclusions. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**WGS 899 Special Study (1-3)**

*Prerequisites:* consent of the graduate major adviser and the supervising faculty member. Study is planned, developed, and completed under the direction of a member of the department faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment is by petition.

**WOMEN STUDIES**

See *Women and Gender Studies*