

## 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).
- One of the designations (F, S, F/S, or A) after the unit value for the course indicates the frequency of offering. See section on Course Descriptions.
- 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 specific topic for each semester 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 [US], and California State and Local Government courses [CA].

#### 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 printed in advance of fall and spring semesters and may be purchased in the Bookstore. Experimental and variable topic courses which are offered each semester can be found in the *Class Schedule*.

Departments indicate the semester in which they expect to offer the course by the use of F (fall), S (spring), F/S (each semester), and A (alternate years). This key is indicated following the course title in this *Bulletin*. While the university will make every effort to follow this announced schedule, the semester of offering is subject to change without prior notice when unusual circumstances require it.

## COURSE NUMBERING SYSTEM

Because of the differences in the organization and content of the various disciplines and professions, there is no uniform, reasonable 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. 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 ----- joint 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.

### 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 labo-

ratory 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.

### CALIFORNIA ARTICULATION NUMBER (CAN) SYSTEM

The California Articulation Number (CAN) identifies some of the transferable, lower division, introductory (preparatory) courses commonly taught within academic disciplines on California college and university campuses.

The system assures students that CAN courses on one participating campus will be accepted "in lieu of" the comparable CAN participating course for the major on another participating campus. For example, a qualified CAN course prefixed as CAN ECON 2 will be accepted for a course prefixed with the same CAN ECON 2 offered on another CAN participating campus.

San Francisco State University participates in the California Articulation Number System. The following SFSU courses have been designated as CAN courses:

| <i>CAN Subject Prefix Number</i> | <i>SFSU Course Number</i> |
|----------------------------------|---------------------------|
| CAN ANTH 2                       | ANTH 100                  |
| CAN ANTH 4                       | ANTH 120                  |
| CAN ANTH 6                       | ANTH 110                  |
| CAN ART 2                        | ART 201                   |
| CAN ART 4                        | ART 202                   |
| CAN ART 6                        | ART 245                   |
| CAN ART 12                       | ART 240                   |
| CAN ART 18                       | ART 260                   |
| CAN ART 20                       | ART 235                   |
| CAN ART SEQ A                    | ART 201+ART202            |
| CAN BIOL SEQ A                   | BIOL 230+BIOL 240         |
| CAN DRAM 6                       | TH A 223                  |
| CAN DRAM 8                       | TH A 130                  |
| CAN ECON 2                       | ECON 100                  |
| CAN ECON 4                       | ECON 101                  |
| CAN ENGL 2                       | ENG 114                   |
| CAN ENGL 6                       | CW 101                    |
| CAN ENGR 4                       | ENGR 200                  |
| CAN ENGR 6                       | ENGR 205+ENGR 206         |
| CAN ENGR 8                       | ENGR 102                  |
| CAN ENGR 12                      | ENGR 205                  |
| CAN FCS 2                        | DFM 253                   |
| CAN FREN 2                       | FR 101                    |

| <i>CAN Subject Prefix Number</i> | <i>SFSU Course Number</i>           |
|----------------------------------|-------------------------------------|
| CAN FREN 4                       | FR 102                              |
| CAN FREN SEQ A                   | FR 101+FR 102                       |
| CAN GEOG 2                       | GEOG 101                            |
| CAN GEOG 4                       | GEOG 102                            |
| CAN GEOL 2                       | GEOL 110                            |
| CAN GEOL 4                       | GEOL 115                            |
| CAN GOVT 2                       | PLSI 200                            |
| CAN HIST 2                       | HIST 110                            |
| CAN HIST 4                       | HIST 111                            |
| CAN HIST 8                       | HIST 120                            |
| CAN HIST 10                      | HIST 121                            |
| CAN HIST 14                      | HIST 114                            |
| CAN HIST 16                      | HIST 115                            |
| CAN HIST SEQ A                   | HIST 110+HIST 111                   |
| CAN HIST SEQ B                   | HIST 120+HIST 121                   |
| CAN HIST SEQ C                   | HIST 114+HIST 115                   |
| CAN JAPN 2                       | JAPN 101                            |
| CAN JAPN 4                       | JAPN 102                            |
| CAN JAPN SEQ A                   | JAPN 101+JAPN 102                   |
| CAN JOUR 2                       | JOUR 221                            |
| CAN JOUR 4                       | JOUR 200                            |
| CAN MATH 4                       | MATH 165                            |
| CAN MATH 16                      | MATH 109                            |
| CAN MATH 18                      | MATH 226                            |
| CAN MATH 20                      | MATH 227                            |
| CAN MATH 22                      | MATH 228                            |
| CAN MATH SEQ B                   | MATH 226+MATH 227                   |
| CAN MATH SEQ C                   | MATH 226+MATH 227+MATH 228          |
| CAN PHIL 2                       | PHIL 101                            |
| CAN PHYS 2                       | PHYS 111+PHYS 112                   |
| CAN PHYS 4                       | PHYS 121+PHYS 122                   |
| CAN PHYS 8                       | PHYS 220+PHYS 222                   |
| CAN PHYS 12                      | PHYS 230+PHYS 232                   |
| CAN PHYS SEQ A                   | PHYS 111+PHYS 112+PHYS 121+PHYS 122 |
| CAN PSY 2                        | PSY 200                             |
| CAN REC 2                        | REC 200                             |
| CAN SOC 2                        | SOC 105                             |
| CAN SPAN 2                       | SPAN 101                            |
| CAN SPAN 4                       | SPAN 102                            |
| CAN SPAN SEQ A                   | SPAN 101+SPAN 102                   |
| CAN STAT 2                       | MATH 124                            |

**What is course articulation?** Course articulation is the written agreement between San Francisco State University and another institution; e.g., either a California community college, a University of California, a California State University, or an indepen-

dent college or university, to accept a specific course(s) completed at a transfer institution to meet a specific major course requirement at SFSU. Faculty in each discipline review courses and approve all agreements. The agreements authorize the acceptance of one course or a sequence of courses "in lieu of" another for transferring students. Articulated courses are not to be construed as "equivalent" but rather as comparable courses; i.e., the content is such that similar outcomes are assured and advancement to the next level of instruction is appropriate.

**What is the California Articulation Number (CAN) System?** The California Articulation Number (CAN) System is a cross-reference course identification system for many lower division, transferable courses commonly taught on college campuses.

**What should I do?** Transfer students, wishing "in lieu of" transfer credit for a SFSU CAN designated course listed in the preceding section, should first consult both their transfer campus(es) catalog for the qualified CAN course(s) successfully completed and the list of SFSU qualified CAN courses to determine course to course comparability. Students are advised to consult with the major department for course to course comparability credit, course planning, and general major advisement.

For more details and additional information on the California Articulation Number (CAN) System, go to [www.can.csus.edu/](http://www.can.csus.edu/) or contact the SFSU department represented in CAN or the Articulation Officer, Office of Course Articulation, ADM 224, Advising Center, SFSU.

**ACCOUNTING***Undergraduate Courses***100 Principles of 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.

**101 Principles of Managerial Accounting (3)**

*Prerequisite:* ACCT 100; BA 110 or MATH 110. 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.

**102 The Accounting Cycle (1)**

An alternative for ACCT 301 pretest. Use of traditional bookkeeping procedures to maintain accounting records and prepare financial statements. Double-entry bookkeeping and the accounting cycle. CR/NC grading only.

**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.

**300 Accounting and Finance Reporting (3) F,S**

*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.

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

*Prerequisites:* ACCT 100, ACCT 101, BA 110 and ISYS 263 with grades of C- or better; and passing of pretest or ACCT 102 (cannot be taken concurrently). 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. Theory of accounts and accounting standards. Financial statement preparation. Assets and related income measurement and presentation. Current liabilities.

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

*Prerequisites:* ACCT 301, FIN 350, BUS/ENG 214 (or ENG 310) with minimum grades of C-, and prior adviser approval. Accounting for investments, long-term liabilities, leases, post-retirement benefits, income taxes, stockholders' equity, earnings per share, and cash flow.

**303 Accounting for Financial Analysis (3) F,S**

*Prerequisites:* FIN 350 with grade of C- or better, 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. Financial reporting of current assets and liabilities, plant and equipment, intangibles, long-term debt, and stockholders' equity. Intended for students without an accounting concentration.

**305 Cost Accounting (3) F,S**

*Prerequisites:* ACCT 301 or ACCT 303, BUS/ENG 214 or ENG 310 with minimum grades of C-. 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.

**307 Accounting Information Systems (3) F,S**

*Prerequisites:* ACCT 100, ACCT 101, and ACCT 301 with minimum grades of C; ISYS 263. ISYS 263 prerequisite may be satisfied by passing ISYS 263 or by passing a waiver examination in basic computer proficiency and information systems. ACCT 301 may be taken concurrently. Development and use of accounting information systems for managerial control and external reporting.

**317 Accounting/Internal Auditing Internship (3) F,S**

*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.

**451 Accounting, Finance, and Tax for the Smaller Business (3) F,S**

*Prerequisites:* ACCT 101, MGMT 430. Development of accounting systems, financial plans, and budgets for small businesses. Financing sources for start-up and growing businesses. Income tax considerations in choosing a type of business organization.

**501 Advanced Accounting (3) F,S**

*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.

**502 Strategic Cost Management (3)**

*Prerequisite:* ACCT 305 with minimum grade of C-. 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.

**504 Government and Nonprofit Accounting (3) F,S**

*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.

**506 Auditing (3) F,S**

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

**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.

**508 Federal Tax Accounting I (3) F,S**

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

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

*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.

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

*Prerequisites:* ACCT 301, ACCT 307, or certificate adviser's recommendation. Overview of the internal audit process; control of internal systems, audit evidence, and reporting the internal audit.

**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***800 Financial Accounting I (3) F,S**

*Prerequisite:* BUS 781. 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.

**801 Financial Accounting II (3) F,S**

*Prerequisite:* BUS 781, ACCT 800 (may be taken concurrently). Accounting for investments, liabilities, stockholders' equity, pensions, leases, income taxes, earnings per share and cash flow.

**802 Strategic Cost Management (3)**

*Prerequisite:* BUS 781. For course description, see ACCT 502. Paired with ACCT 502. Students who have taken ACCT 802 may not take ACCT 502 for credit.

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

*Prerequisites:* ACCT 801, BA 512, BUS 782. 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.

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

*Prerequisite:* BUS 784 or consent of instructor. 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.

**806 Seminar in Accounting Theory (3) S**

*Prerequisite:* ACCT 801. Accounting theory and its development over time. Current literature and recent developments in accounting theory and practice. Relevant to CPAs, CMAs, and financial managers.

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

*Prerequisite:* BUS 781. The development of accounting information systems and their uses for management decision making and external reporting. Auditing and control of accounting information systems.

**808 International Accounting (3) S**

*Prerequisite:* ACCT 801. A survey of problems relating to accounting for multinational corporations doing business in a global environment and attempts to solve them.

**811 Introduction to Federal Tax (3) F,S**

An in-depth introduction to federal tax problems: income, deductions, credits, exemptions, and property transactions.

**812 Corporate Taxation (3) F,S**

*Prerequisite:* ACCT 811 (may be taken concurrently). Issues related to the federal income tax consequences of actions taken by corporations and their shareholders.

**895 Research Project in Accounting (3)**

*Prerequisites:* 4 800-level courses (a minimum of 2 must be accounting) and approval of Business graduate studies office. Open only to accounting MSBA candidates. Research methodology and supervised research into topics and issues in accounting, culminating in oral and written presentations. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**898 Master's Thesis in Taxation (3) F,S**

*Prerequisites:* minimum 12 units of 800-level courses in taxation. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**ALL UNIVERSITY***Undergraduate Courses***100 Freshmen 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. CR/NC grading only.

**101 First Year Experience: Liberal Studies (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. Intended for liberal studies majors.

**101 First Year Experience: Undeclared (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. Intended for undeclared majors.

**280 Community Service Learning Option (1)**

*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.

**280 Community Service Learning Option (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.

**293 Cooperative Education Colloquium (1)**

*Prerequisites:* ENG 114, SPCH 150, and consent of instructor. Preparatory course in Cooperative Education designed to assist students with academic and career development. Personal self-awareness and positive self-esteem are developed and applied to the pragmatic aspects of intern placements, job retention, and career development. CR/NC grading only.

**300 Parenting for Now, 2000, and Beyond (1-3)**

*Prerequisite:* upper division standing or consent of instructor. Practical application of parenting skills: the daily grind, little kids need us, and family life with kids. Parent's culture and personal parenting issues are the basis for age-appropriate limit setting and conflict resolution.

**693 Cooperative Education Program (1,3,6,12)**

*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.

**695 Health Professions Colloquium (5)**

*Prerequisites:* 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.

*Graduate Course***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.

**AMERICAN INDIAN STUDIES***Undergraduate Courses***110 Critical Thinking and the American Indian Experience (3) [GE]**

Understanding, criticizing, and constructing arguments by using materials reflective of experiences of American Indians and the Third World culture in the U.S.

**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.

**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.

**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.

**205 American Indians and U.S. Laws (3) [US,CA]**

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. (Page reference for U.S. government and the California state and local government requirement can be found in the Index.)

**214 Second Year Written Composition: American Indian Studies (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Develops student ability to write logically developed compositions that state and support one central theme with focus on effective content, organization, sentence structure, paragraph and essay development. Must be taken after the student has completed 24 units and before completing 60 units. ABC/NC grading.

**220 American Indian Music (3) [GE]**

Musical styles, musical instruments, tribal dance styles—social and ritual—of North American Indian cultures; adaptation of traditional social music and dance to modern "Pow-Wow" setting.

**225 American Indian Art (3) [GE]**

Ancient art forms, styles, and media viewed from Indian perspective as integral part of American Indian cultures. Emergence of "cottage industries" among tribes in North America in early 1900's.

**230 American Indian Lifestyles (3) [GE]**

American Indian lifestyles and their comparison and contrast with ones such as western European.

**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.

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

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.

**360 Modern American Indian Authors (3)**

Narrative, oratory, poetry, short stories, and contemporary novels recorded and written by Indians from mid 1850's through contemporary times. Changing literary forms, methods of recordings, celebrating and reaffirming 19th and 20th century Indian life.

**400 American Indian Education (3)**

Content, curriculum, and structure of education in reservation and off-reservation schools. Problems, goals, innovative restructuring, proposals for future.

**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.

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

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.

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

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.

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

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. (Page reference for U.S. history requirement can be found in the Index.)

**470 American Indian Ethnicity: Problems in Identity (3)**

*Prerequisite: upper division standing or consent of instructor.* Native American tribal and pan-Indian identities in theoretical and historical context. Issues surrounding the formation of an ethnic identity within the nation-state and reservation context.

**480 American Indian Social Movements (3)**

*Prerequisite: upper division standing or consent of instructor.* Social movements among American Indians that have attempted to restructure and transform traditional practices in the face of drastically changing conditions. Extra fee may be required.

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

Relation of language to a culture: language learning, language logic as among the Hopi, Wintu, Navajo, and Sioux.

**560 Modern Creative and Performing Arts (3)**

Individual and group performance of creative and performing arts in American Indian communities. Fine art, oral poetry, dramatic modes and media. Adaptation of traditional modes to modern situations.

**600 Current Issues in the American Indian Community (3)**

*Prerequisite: upper division standing or consent of instructor. Topic to be specified in Class Schedule.* May be repeated for a total of 12 units when topics vary.

**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.

**694 Community Service Learning Option (1-2)**

*Prerequisites: consent of instructor. Must be taken concurrently with any AIS course offering opportunity for community service learning option.* Community service learning to be taken with any AIS course that supports community service learning.

**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.

**Graduate Course****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****300 Perspectives on American Culture (3) [GE]**

American culture from the perspectives of different social sciences. American national character, social thought, and political order. (Also offered as S S 410.)

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

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. (Also offered as HUM 485.)

**352 Peoples and Cultures of California (3) [GE]**

*Prerequisites: ENG 214 and junior standing or consent of instructor.* The peoples and cultures of California, past and present. Ethnicity, race, gender, and class as factors defining the nature of California life and cultural expression. (Also offered as ANTH 352.)

**400 American Regional Cultures (3) [GE]**

Study of regional American cultures through their landscapes, historical backgrounds, literatures, arts, and other dimensions. (Also offered as GEOG 551.)

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

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. (Also offered as HUM 450.)

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

F,S

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.

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

F,S

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

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

F,S

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

**203 Introduction to Dance Ethnology (2)**

*Prerequisites: DANC 169, DANC 207, ANTH 120, or consent of instructor.* For course description, see DANC 203. (May not be repeated under alternate prefix.)

**220 Current Issues in Anthropology (3)**

*Topic to be specified in Class Schedule.* Selected contemporary anthropological issues in areas of ecology, racism, human evolution, women's studies, linguistic communication, archaeology. May be team-taught to bring together cross-cultural, evolutionary and pre-historical data.

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

F,S

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

**307 Culture and Identity in World Politics (4)**

*Prerequisite:* I R 301 or consent of instructor. For course description, see I R 307. (May not be repeated under alternate prefix.)

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

*Prerequisite:* ANTH 120. Family structures, kinship systems, gender and age relations; forms of community organization across the globe, spanning both non-industrial and industrial peoples and cultures.

**315 Regional Ethnography (3)**

*Prerequisite:* ENG 214. Topic to be specified in Class Schedule. May be repeated when topics vary. (Also offered as ETHS 315.)

**317 Topics in Anthropology (1)**

*Prerequisites:* ANTH 100, 110, or 120. Topic to be specified in Class Schedule. CR/NC grading only.

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

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. (Also offered as CST 320.)

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

Interaction between non-industrial and industrial societies; cultural degradation and extermination of non-industrial societies beginning 150 years ago.

**327 Anthropology and Film (4) [GE]**

*Prerequisite:* upper division standing. Social and cultural anthropology through films, ethnographies, and popular writings of anthropologists. (Also offered as CINE 327.)

**330 Human Osteology (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. Classwork, 2 units; laboratory, 2 units.

**331 Fossil Humans (4) [GE] S**

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. Classwork, 2 units; laboratory, 2 units.

**332 Human Variation Today (4) [GE]**

Race classification and concepts: population genetics, world survey of aboriginal and heterogeneous modern population biology; bio-cultural input to adaptations in modern humans. Classwork, 2 units; laboratory, 2 units.

**333 Primate Behavior (3) F**

Social behavior of prosimians, monkeys, and apes. Reproduction, play, communication, aggression, ranging, and territoriality. Interrelationships between ecology and social organization.

**343 Women and Work (3) [GE]**

For course description, see S S 343. (Also offered as LABR 343.)

**345 Bioarchaeology (3)**

*Prerequisites:* ANTH 330 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.

**350 The North American Indian (3) F,S**

*Prerequisite:* upper division standing. Prehistory, physical anthropology, and ethnology of the Indians of North America.

**352 Peoples and Cultures of California (3) [GE]**

*Prerequisites:* ENG 214 and junior standing or consent of instructor. The peoples and cultures of California. Ethnicity, race, gender, and class defining the nature of life and cultural expression. (Also offered as AMST 352.)

**356 Archaeology of California (3) [GE]**

Prehistoric heritage of California's Native American cultures studied in the comparative light of ethno-historic and ethnographic data. Archaeological focus on culture-history, economy, settlement pattern, ecology, political organization, and processual adaptation.

**388 Sex and Colonialism (3)**

*Prerequisite:* upper division standing. For course description, see HMSX 388. May not be repeated under the alternate prefix.

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

*Prerequisites:* ANTH 120 and upper division standing or consent of instructor. Perspective of critical anthropology the role of culture in sex/gender power relations in East Asian societies. (Also offered as HMSX 438.)

**457 AIDS: Anthropological Perspective (3)**

*Prerequisite:* 1 ANTH or 1 HMSX course or consent of instructor. Anthropological study of the HIV/AIDS pandemic, focusing on the cultural dimensions of the response to the virus in diverse communities. Includes volunteer/fieldwork and research. (Also offered as HMSX 457. May not be repeated under alternate prefix.)

**470 Archaeology of Mexico (3) F,S**

Pre-Cortesian cultures and civilizations in Meso-America; origins of agriculture, cities, politics, and economic institutions; the Olmecs, Teotihuacanos, Toltecs, Maya, and Aztecs.

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

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.

**475 Ancient South America (3) S**

The rise of civilization in western South America; prehistory and achievements of the Indians of Peru and the Inca empire; relations with Indians of Bolivia, Colombia, and the Chibcha civilization.

**480 Ancient Civilizations of the Near East (3)**

*Prerequisite:* upper division standing. Prehistory and development of culture in the Near East; the neolithic and urban revolutions; empires and conquests.

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

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.

**485 Archaeology of Women (3) [GE]**

In conventional archaeology, the female half of human societies has been consistently ignored. Puts the forgotten sex back into the past, showing how an engendered archaeology modifies many of our views of human origins and pre-history.

**491 Archaeological Methods (4) F,S**

*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.

**492 Archaeological Excavation and Data Analysis (6) S**

*Prerequisite:* ANTH 491 or consent of instructor. Archaeological research: field experience (15 days) in sampling strategy, excavation, cartography, photography, and site survey; laboratory analysis of material. Classwork, 2 units; laboratory, 1 unit; field work, 3 units. May be repeated twice.

**493 Field Methods in Archaeological Technology (6)**

*Prerequisites:* ANTH 110, 491, 492, and one regional course in anthropological archaeology. The literature, method, and theory related to geophysical remote sensing technologies.

**497 Writing for Museums, Galleries, and Other Cultural Institutions (3)**

*Prerequisites:* ENG 214 or equivalent and passing score on diagnostic writing test administered during first week of class. For course description, see M S 497.

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

For course description, see HIST 501. (Also offered as RAZA/S S 501.)

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

*Prerequisite:* upper division standing. For course description, see LABR 525. (Also offered as S S 525. May not be repeated under alternate prefix.)

**550 Culture and Personality (3)**

Anthropological study of personality. Theories of cultural influence in the development and structure of personality.

**551 Psychological Anthropology (3)**

*Prerequisite:* upper division standing or consent of instructor. *Topic to be specified in Class Schedule.* Comparative cross-cultural approaches to study of relations between individuals and culture. May be repeated once as topics vary.

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

*Prerequisites:* one course in cultural anthropology and upper division standing or URBS 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. (Also offered as URBS 555.)

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

*Prerequisite:* ANTH 555. Participant-observation fieldwork techniques; research projects in inner city communities in the Bay Area. (Also offered as URBS 557.)

**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. (Also offered as HMSX 567.)

**570 Anthropology of Religion (3)**

Dynamics and function of religion and magic in human societies; cosmological systems; comparative study of elements, forms, and symbolism of religion.

**580 Anthropology and the Arts (4)**

*Topic to be specified in Class Schedule.* The arts of Africa, Oceania, and the Americas. May be repeated for a total of 12 units when topics vary.

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

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.

**585 Multinational Corporations and World Cultures (3) [GE]**

*Prerequisite:* ANTH 120. Effects of globalization and multinational corporations on cultures. (Also offered as CST 585.)

**590 Anthropology of Women (3) [GE] F,S**

*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. (Also offered as CST 590/WOMS 595.)

**591 Topics in Applied Anthropology (4)**

*Prerequisite:* ANTH 120. *Topic to be specified in Class Schedule.* May be repeated when topics vary.

**595 Visual Anthropology I (6)**

*Prerequisite:* consent of instructor. Production of ethnographic media (film, video, audio, still photography) in collaboration with anthropology and cinema students. Fieldwork methods and technical skills used to produce ethnographic documents integrated with analytical text. Classwork, 3 units; fieldwork, 3 units. (Also offered as CINE 595. May not be repeated under alternate prefix.)

**596 Visual Anthropology II (6)**

*Prerequisite:* ANTH/CINE 595 or consent of instructor. Production of ethnographic multimedia designed in conjunction with culture theory. Collaborative ethnographic projects, developed in ANTH/CINE 595, are developed and recast as interactive media works. Classwork, 3 units; activity, 3 units. (Also offered as CINE 596. May not be repeated under alternate prefix.)

**597 Digital Editing for Visual Anthropology (1)**

*Prerequisites:* cinema or anthropology major, upper division standing, and consent of instructor. *Must be taken concurrently with ANTH 595 and ANTH 596.* For course description, see CINE 597. May be repeated once.

**630 Medical Anthropology (3) [GE] A**

*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.

**631 Critical Medical Anthropology (3)**

*Prerequisite:* upper division standing or consent of instructor. *Topic to be specified in Class Schedule.* Cross-cultural analysis of the meaning of illness, disease, and medical treatment. Traditional and modern systems of health and healing.

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

*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.

**652 Anthropological Statistics (3) A**

*Prerequisite:* ANTH 310 or consent of instructor. The methods and techniques available to the anthropologist for analysis of data: categorization and classification; statistical inference and hypothesis testing; qualitative analysis. Classwork, 2 units; laboratory, 1 unit.

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

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

**680 Seminar in Contemporary Anthropology (4) F,S**

*Prerequisite:* ANTH 300 or consent of instructor. Directed student investigation of specific theoretical problems in anthropology and exploration of current theory and method.

**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.

**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.

**699 Special Study (1-3) F,S**

*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.

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

*Prerequisite:* graduate status or consent of instructor. For course description, see HMSX 701.

**710 Proseminar in Anthropological Theory and Method (3) F,S**

*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.

**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.

**740 Seminar in Archaeological Problems (3) F,S**

*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.

**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.

**770 Seminar in Problems in Cultural Anthropology (3) F,S**

*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.

**771 Resistance and Domination: Anthropological Perspectives (3)**

*Prerequisite:* one 700-level anthropology course or consent of instructor. Contemporary developments in ethnographic theory around the themes of resistance and domination.

**795 Directed Experience in Museology (3)**

*Prerequisite:* consent of instructor. Supervised, advanced practical experience in museum anthropology. May be repeated once.

**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.

**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.

**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.

**899 Special Study (1-3) F,S**

*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***160 Introduction to the Fashion Industry (3)**

*Priority enrollment for ID majors.* The fashion industry: investigation of the design, manufacturing, and distribution of textile and apparel products for different markets. Career opportunities within all market segments.

**200 Visual Communication in Apparel and Interior Design (3)**

*Priority enrollment for ADM majors.* Communication techniques for interior design and apparel professionals. Problem solving techniques using rapid visualization and the use of computers for concept development and presentations. (Also offered as ID 200. May not be repeated under alternate prefix.)

**260 Textiles (3) F,S**

Natural and chemical fibers; yarn and cloth construction; labeling, federal legislation, finishing, dyeing, stain removal, and detergency. (Formerly CFS 366.)

**261 Apparel Construction (3) F,S**

*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.)

**262 Fashion Illustration (3) A**

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

**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. (Also offered as ID 300. May not be repeated under alternate prefix.) (Formerly CFS 310.)

**360 Fashion, Clothing, and Society (3) [GE] F,S**

*Prerequisite:* upper division standing. 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. (Formerly CFS 364.)

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

*Prerequisite:* ADM 261. *Priority enrollment given to clothing and textiles 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.)

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

*Prerequisite:* ADM 261. *Priority enrollment given to clothing and textiles 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.)

**365 Textile Laboratory (1) F,S**

*Prerequisite:* 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.)

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

*Prerequisite:* ADM/ID 200 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. (Also offered as ID 366. May not be repeated under alternate prefix.) (Formerly CFS 365.)

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

*Prerequisite:* 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.)

**461 Computer-aided Apparel Design (3)**

*Prerequisite:* ADM 361 or consent of instructor. *Priority enrollment given to ADM majors.* Use of computer-aided design software applied to the sketching and flat pattern design of apparel; pattern grading, nesting, marker making. Classwork, 2 units; laboratory, 1 unit. Extra fee required.

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

*Prerequisite:* ADM 360. Computer software applied to statistical analysis of data, research variables, and development of formal presentation of data based on apparel research. Classwork, 2 units; laboratory, 1 unit. Extra fee required. (Formerly CFS 460.)

**469 Visual Merchandising and Promotion (3)**

*Prerequisite:* ID 240. 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. (Formerly CFS 469.)

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

*Prerequisite:* ADM 360 or consent of instructor. 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. (Formerly CFS 465.)

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

*Prerequisite:* 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.)

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

*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.)

**600 Professional Development (3)**

*Prerequisites:* senior standing and passing score on JEPET or ENG 411/414. *Enrollment limited to majors or consent of instructor.* For course description, see CFS 600. (Also offered as ID 600. May not be repeated under alternate prefix.)



**610 Field Experience in Apparel and Interior Design (2)**

*Prerequisites:* ADM/ID 200, ADM/ID 260, ADM/ID 300, and senior standing. Field experience in area of emphasis. Group discussion of experience. Advanced course application is required. Forms obtained from department. Either course may be repeated for a total of 4 units. (Also offered as ID 610.)

**661 Advanced Clothing Design Problems (3)**

*Prerequisites:* ADM 361, ADM 362. Clothing design problems related to specific populations. Development of design prototypes based on market analyses of fashion trends. Classwork, 2 units; laboratory, 1 unit. (Formerly CFS 461.)

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

*Prerequisites:* ADM 100, ADM 260, 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. Classwork, 2 units; laboratory, 1 unit. (Formerly CFS 566.)

**669 Field Experience: Fashion Merchandising (2)**

*Prerequisite:* ADM 369. Participation in a business organization or retail establishment engaged in the merchandising of ready-to-wear clothing. (Formerly CFS 486.)

**685 Projects in 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.

**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.

**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.

**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.

**204 Arts of Africa, the Pacific, and Native Americas (3) [GE]**

Survey of the traditional arts of Africa, the Pacific, and Native Americas. Methods for studying their cultures, values, and sociopolitical systems related to 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. (Also offered as HUM 205.)

**210 Conceptual and Information Arts 1 (3)**

Studio experiences correlating concepts, form-languages, and a variety of modes of art expression. Laboratory. Extra fee required.

**222 Textiles 1 (3) [GE]**

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

**225 Jewelry and Metalsmithing 1 (3) [GE]**

Studio experiences correlating the craft of metal arts and jewelry work with basic techniques and processes. Laboratory. Extra fee required.

**231 Drawing 1 (3) [GE]**

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.

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

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

**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.

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

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

**247 Glass 1 (3)**

Studio experiences correlating glass media with basic techniques such as stained glass, glass slumping and fusing, and glass casting. Laboratory. Extra fee required.

**260 Photography 1 (3) [GE]**

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.

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

*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.

**325 Fabrication for Jewelry and Metalsmithing (3)**

*Prerequisite:* ART 225 or consent of instructor. Intermediate level studio. Development of technical and conceptual approaches to small object construction. Extra fee required. Laboratory.

**395 Painting Plant and Animal Forms (1)**

*Prerequisite:* upper division standing or consent of instructor. Rendering botanical imagery and animal textures in a realistic manner using colored pencil with watercolor or gouache. Work with fish, amphibian, reptile, bird, and mammal imagery to draw details such as scales, feathers, and fur. Techniques for illustrating simple as well as complex plant forms.

**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.

**402 History of Architecture (3)**

*Prerequisites:* ART 201, ART 202, or equivalent. Interplay of function, structure, and form during the major periods of world art. Emphasis on modern architecture.

**403 Queer Art History (3) [GE]**

*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. (Also offered as HMSX 405.)

**404 Late Antiquity and Medieval Art and Architecture (3)**

*Prerequisites:* ART 201, ART 202, or equivalent. Painting, sculpture, architecture, and the other arts in Europe between late Antiquity and the Renaissance.

**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. (Also offered as HUM 405.)

**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.

**408 Baroque and Rococo Art (3)**

*Prerequisites:* ART 201, ART 202, or equivalents. Painting, sculpture, and architecture of 17th and 18th century Europe. Impact of the Counter-reformation and the rise of modern nation states on 17th century art, and the political undercurrents in 18th century 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.

**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.

**422 Textiles 2 (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.

**424 Surface Design 2 (3)**

*Prerequisite:* ART 222 or equivalent. Fundamental surface design techniques on fabric for producing two- and three-dimensional forms. May be repeated for a total of 6 units on advisement. Laboratory. Extra fee required.

**425 Jewelry and Metalsmithing 2 (3)**

*Prerequisite:* ART 225, ART 325, or equivalent. Materials, techniques, and concepts in contemporary jewelry. Methods for design, fabrication, forging, casting, and surface treatments. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**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.

**432 Drawing 2 (3)**

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

**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.

**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.

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

*Prerequisites:* 6 units of drawing from ART 231, 431, 433, 533, or equivalent. Relief workshop. May be repeated for a total of 6 units. Laboratory. Extra fee required.

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

*Prerequisites:* 6 units of drawing from ART 231, 431, 433, 533, or equivalent. Intaglio workshop. May be repeated for a total of 6 units. Laboratory. Extra fee required.

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

*Prerequisites:* 6 units of drawing from ART 231, 431, 433, 533, or equivalent. Lithography workshop. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**438 Monoprinting (3)**

*Prerequisites:* 6 units from ART 231, 431, 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.

**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.

**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 6 units. Laboratory. Extra fee required.

**450 Art for Children (3)**

Creative experiments with varied media to explore art in child development. Laboratory. Extra fee required.

**451 Crafts for Children (3)**

Crafts and three dimensional media appropriate for children. Laboratory. Extra fee required.

**460 Photography 2 (3)**

*Prerequisite:* ART 260 or equivalent. Priority enrollment given to art majors. Photography as a creative medium. 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.

**500 Pre-Hispanic Art of Mexico (3)**

*Prerequisites:* upper division standing or consent of instructor. The ways Mesoamericans used art in service to religion and political ends. Survey of major artistic traditions. (Also offered as RAZA 350.)

**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.

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

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

**503 Pacific, Native North American, and Caribbean Arts (3) [GE]**

*Prerequisite:* upper division standing. Topic to be specified in Class Schedule. May be repeated as topics vary.

**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.

**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. (Also offered as HUM 507. May not be repeated under alternate prefix.)

**508 African Art History (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Arts of black sub-Saharan Africa. Artistic traditions within social and historical contexts.

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

Research, design, and development of visual material for instructional purposes. Concurrent enrollment permitted in two different sections of Art Production Series. A total of 4 units from this Series may be taken for credit. Laboratory.

**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.

**522 Textiles 3 (3)**

*Prerequisite:* ART 422 or equivalent. Four- and eight-harness looms. Development of three-dimensional woven forms combining textile media. May be repeated for a total of 6 units. Activity. Extra fee required.

**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.

**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.

**525 Jewelry and Metalsmithing 3 (3)**

*Prerequisite:* ART 425 or equivalent. Advanced processes in design and construction of jewelry and small objects. May be repeated for a total of 6 units. Activity. Extra fee required.

**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.

**532 Painting and Drawing: Special Areas (3)**

*Prerequisite:* ART 531 or equivalent. Topic to be specified in Class Schedule. Priority enrollment given to art majors. May be repeated as topics vary. Laboratory. Extra fee may be required.

**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.

**534 Mixed Media Painting (3)**

*Prerequisites:* ART 231 and 431 or equivalents. Priority enrollment given to art majors. Structural and dimensional aspects of painting. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**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.

**538 Watercolor Painting (3)**

*Prerequisite:* ART 431 or equivalent. Priority enrollment given to art majors. Watercolor techniques and concepts. May be repeated for a total of 6 units. Laboratory. Extra fee required.

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

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.

**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 6 units. Laboratory. Extra fee required.

**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.

**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.

**545 Ceramics 3 (3)**

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

**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.

**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.

**548 Glaze Calculations (3)**

*Prerequisite:* ART 545 or consent of instructor. Glazes, clay bodies, kiln design, firing techniques; application and development of glazing techniques. Extra fee required.

**560 Photography 3 (3)**

*Prerequisites:* ART 460 or equivalent and consent of instructor. Priority enrollment given to art majors. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**562 Color Photography I (3)**

*Prerequisite:* ART 560 or equivalent and consent of instructor. Priority enrollment given to art majors. Color photography: processing and printing of color materials. May be repeated for a total of 9 units. Laboratory. Extra fee required.

**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.

**602 Methods in Art History (3)**

*Prerequisites:* senior or entering graduate standing and review of two research papers. Advanced seminar in art history research methods. Paired with ART 702. ART 602 and 702 may both be taken for a combined total of 6 units.

**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.

**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.

**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.

**622 Textiles 3 (3)**

*Prerequisite:* departmental recommendation and permission. Textile workshop with emphasis on woven projects. May be repeated for a total of 6 units. Activity.

**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.

**632 Painting Honors Studio (3)**

*Prerequisite:* departmental recommendation and permission. Priority enrollment given to art majors. Combination of critique and independent work in painting. May be repeated for a total of 6 units. Laboratory.

**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.

**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.

**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.

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

Principles and practices of curriculum planning and instruction in the visual arts. Objectives, issues, problems; and teaching techniques. Extra fee required.

**651 Service Learning in Art Education (2)**

*Prerequisite:* upper division standing or consent of instructor. Integrates instruction in arts education theory and methods, emphasizing and preparing students for a teaching and collaborative art-making experience in El Salvador. This one-semester campus course precedes a 3-week winter session, service learning course in a small community in El Salvador. May be repeated for a total of 4 units. (Also offered as IAC 651.)

**660 Photography 4 (3)**

*Prerequisite:* departmental recommendation and permission. Priority enrollment given to art majors. Photography workshop. May be repeated for a total of 6 units. Laboratory. Extra fee required.

**662 Color Photography II (3)**

*Prerequisite:* departmental recommendation and permission. Priority enrollment given to art majors. Problems in color photography. Laboratory. Extra fee required.

**663 Honors Seminar in Photography (3)**

*Prerequisites:* ART 560, portfolio review, and area consent. Seminar integrating the history of photography with contemporary discourse on photographic representation.

**685 Projects in Teaching in 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.

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

*Prerequisites:* upper division standing, consent of instructor, and approval of 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.

**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.

**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.

**702 Methods in Art History (3)**

*Prerequisites:* ART 602, ART 701 or equivalents and classified graduate status. To be taken the semester before ART 898. For course description, see ART 602. Paired with ART 602. ART 602 and 702 may be repeated for a combined total of 6 units.

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

*Prerequisites:* ART 700, ART 701, ART 702, and advancement to candidacy for the master of arts. May be taken concurrently with ART 898 with adviser's consent. Develop graduate level skills in problem formulation, visual and textual analysis, art historical argument, thesis preparation.

**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.

**705 Seminar in History of Art (3)**

*Prerequisites:* ART 700 and not less than 6 units of art history including ART 506 or equivalent taken within the last five years. Topic to be specified in Class Schedule.

**719 Exhibition Design (3)**

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

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

*Prerequisites:* classified M.F.A. graduate status; consent of instructor and major adviser. Development of teaching skills, curriculum planning, and philosophies in art practice fields. Strongly recommended for teaching assistants in ART 850 and for M.F.A. GAS who teach. Required for students who wish to be considered for summer teaching.

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

*Prerequisite:* classified graduate status. 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.

**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.

**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.

**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.

**880 Special Tutorial (0)**

*Prerequisites:* classified graduate status in art and consent of major adviser. Supervised direction of independent studio activities. Intended to provide continuity under special circumstances. CR/NC grading only.

**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.

**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.

**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.

**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.

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

*Prerequisites:* ART 700, 701, 702, and advancement to candidacy for the Master of Arts. One-semester paper demonstrating art historical theory, methods, research. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**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****101 Introduction to Asian American Studies (3)**

Objectives, philosophy, and structure of Asian American Studies. Underlying assumptions of the program, relations between the community and the university, and development of a relevant curriculum.

**110 Critical Thinking and the Asian American Experience (3) [GE]**

Developing basic skills involved in understanding, criticizing, and constructing arguments by using materials reflective of experiences of Asian Americans and Third World culture in the U.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.

**172 Speak Vietnamese II (3) [GE]**

*Prerequisites:* AA S 171 and consent of instructor. Building up a conversant skill in spoken and written Vietnamese, focusing on the practical application of the spoken speech in the Vietnamese American community. For non-native speakers.

**200 History of Asian Americans (3) [US]**

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. (Page reference for U.S. history requirement can be found in the Index.)

**205 Asian Americans and American Ideals and Institutions (3) [US,CA]**

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. (Page reference for U.S. and the California state and local government requirement can be found in the Index.)

**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.

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

*Prerequisite:* 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.

**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.

**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.

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

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.

**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.

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

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.

**322 Chinese American Culture—Language and Literature (3) [GE]**

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.

**331 Japanese Americans in the U.S. (3) [GE]**

Historical experience of the Japanese in America; development of Japanese American communities in the context of the development of the western U.S.

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

Japanese American character, identity, self-image, and behavioral manifestations of the interaction of American and Japanese cultural values.

**355 Psyche and Behavior of Filipinos (3) [GE]**

Psychological and behavioral development of Filipinos. The relationship between "traditional" values and problems of ethno-cultural identity, marginality in the American environment.

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

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.

**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.

**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.

**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.

**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.

**406 Asian American Workshop in Creative Writing (3) [GE]**

Workshop in creative writing to develop new perspectives in the structure, style, and techniques of creating fiction from an Asian American perspective. Selected literary works from the standpoint of creative impetus. May be repeated once. Classwork, 2 units; laboratory, 1 unit.

**434 Concentration Camps, U.S.A. (3)**

Causes and consequences of the World War II evacuation, detention, and internment of 110,000 persons of Japanese ancestry. Personal experiences of internees, legality of government actions, and subsequent effects on the Japanese American people.

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

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.

**456 Filipinos in America: Problems of Transition (3) [GE]**

Immigration of the Filipinos to the U.S.; various coping mechanisms used in response to adjustment problems; changing structure of the community.

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

*Prerequisite:* upper division standing. Literary works by Asian American writers for the young, from pre-school through secondary school; how Asian Americans are depicted in American literature written for the young and the impact on the youth.

**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.

**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.

**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.

**621 Cantonese Grammar for Bilingual Teachers (3)**

*Prerequisite:* upper division standing. A linguistic description and analysis of Cantonese addressed to teachers of language arts and to students who speak the language and wish to acquire a better understanding of the Cantonese language.

**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.

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

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

**649 Selected Topics in Japanese American Studies (2-5)**

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

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

*Prerequisite:* 6 units of upper division course work in AA 5 or consent of instructor. Asian American communities: origins, changes, economics, trends of residential and community patterns. Implications, effects of new immigration and population growth.

**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.

**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.

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

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.

**694 Asian American Arts and Culture (3)**

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

**695 Seminar on Contemporary Asian American Communities (3) [GE]**

*Prerequisite:* 6 units of upper division course work in AA 5 or consent of instructor. Seminar on contemporary Asian American communities and current issues; based on fieldwork and community participation. May be repeated on advisement.

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

*Prerequisite:* AA 5 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.

**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).

**Graduate Courses****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.

**800 Seminar: Contemporary Discourse in Asian American Studies (3)**

*Prerequisite:* consent of instructor. Critical examination of contemporary theory in Asian American studies, relating critical social theory and postmodernism to the original aims of the movement and to racial hegemony; Asian American panethnicity vs. heterogeneity; and the intersectionality of race, gender, and class.

**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.

**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.

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

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

**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.

**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.

**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.

**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.

**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.

**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****115 Introduction to Astronomy (3) [GE] F,S**

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.

**116 Astronomy Laboratory (1) [GE] F,S**

*Prerequisite:* concurrent registration in or completion of ASTR 115. Constellation study; studies of sun, moon, planets, individual and double stars, variable stars, star clusters, and nebulae. Telescopic observations.

**240 Planetarium Astronomy (2) F,S**

Characteristics, motions, and relationships of the planets, stars, and galaxies taught through planetarium activities. Physical principles of time zones, seasons, phases of the moon, orbits, and apparent motions of planets and stars. Especially useful for prospective science teachers.

**320 Stars, Planets, and the Milky Way (3)**

*Prerequisite:* PHYS 220 or PHYS 111. Introduction to modern study of stars, stellar evolution, and the Milky Way galaxy using quantitative analysis and fundamental physical principles. Also discusses planets, interplanetary objects, ground- and space-based observations, and searches for planets and extraterrestrial intelligence.

**321 Observational Astronomy Laboratory (2)**

*Prerequisite:* ASTR 320 (may be taken concurrently) or consent of instructor. Observation with small telescopes. Astronomical coordinates, determination of time, adjustment of equatorial telescopes, astrophotography, astrometry, photographic and photoelectric photometry, and spectroscopy. Lecture, 1 unit; laboratory, 1 unit.

**341 Planetarium Training (1) F,S**

*Prerequisites:* ASTR 115, 116, 240, and consent of instructor. Planetarium operation, programming sky settings, special effects, writing for public and education programs. Laboratory. May be repeated.

**350 History of Astronomy (3) [GE] A**

*Prerequisites:* ASTR 115 or equivalent or consent of instructor. Archaeoastronomy. Theories of the cosmos from ancient times to the present. Estimates of size and age of the universe through the ages. Readings from the major figures.

**410 Galaxies and Cosmology (3) [GE]**

*Prerequisite:* PHYS 240; ASTR 320 recommended. 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. (Formerly ASTR 330.)

**420 Introduction to Astrophysics (3) A**

*Prerequisites:* CSC 210; MATH 376 or 245; PHYS 320; and either ASTR 410 or consent of instructor. Physical processes in astrophysical environments. Stellar atmospheres and interpretation of stellar spectra; interstellar material; stellar structure and energy sources; stellar evolution and nucleosynthesis; and/or cosmology.

**470 Observational Techniques in Astronomy (2)**

*Prerequisites:* ASTR 320 or ASTR 410; CSC 210 or equivalent. Astronomical instrumentation/data analysis. CCD photometry, spectroscopy, image processing, astrometry, interferometry, statistical analysis, instrument design. Paired with ASTR 770. Students who have completed ASTR 470 may not take ASTR 770 for credit. Classwork, 1 unit; laboratory, 1 unit. (Formerly ASTR 390.)

**490 Seminar in Astronomy (1-3) A**

*Prerequisites:* ASTR 320, 410, or consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 6 units.

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

*Prerequisites:* ASTR 470 and senior standing. Culminating experience in the BS in Physics, Concentration in Astrophysics. Observational or theoretical projects under the direction of department faculty. Student must submit a written report of work accomplished.

**699 Special Study (1-3) F,S**

*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 Course***770 Observational Techniques in Astronomy (2)**

*Prerequisites:* ASTR 320 or ASTR 410; CSC 210 or equivalent. For course description, see ASTR 470. Paired with ASTR 470. Students who have completed ASTR 470 may not take ASTR 770 for credit. Classwork, 1 unit; laboratory, 1 unit.

**ATHLETICS***Undergraduate Courses***240 Off Season Conditioning**

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****257 Men's Intercollegiate Track and Field****258 Women's Intercollegiate Softball****260 Women's Intercollegiate Swimming****262 Women's Intercollegiate Tennis****266 Women's Indoor Track and Field****268 Women's Intercollegiate Volleyball****271 Men's Intercollegiate Baseball****275 Men's Intercollegiate Cross-country****278 Men's Intercollegiate Soccer****279 Men's Intercollegiate Swimming****283 Men's Intercollegiate Wrestling****292 Women's Intercollegiate Track and Field****BEHAVIORAL AND SOCIAL SCIENCES***Undergraduate Courses***101 1st Year Experience in Behavioral and Social Sciences (3)**

Introduction to the university and to the College of BSS. Exploration of topical issues in the context of BSS disciplines. Self-assessment and development of skills for academic success. CR/NC grading only.

**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.

**603 Working in Collaborative Partnerships (1)**

*Prerequisite:* upper division or graduate standing. For course description, see EDUC 603.

*Graduate Courses***703 School/Community Partnership for Change (3)**

For course description, see EDUC 703.

**803 Integrated and Collaborative Services for Children (3)**

For course description, see EDUC 803.

**BIOLOGY***Undergraduate Courses***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.

**101 Human Biology Laboratory (1) [GE]**

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

**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.

**160 Marine Biology (3) [GE]**

Introduction to the marine environment including oceanic, intertidal, and near shore communities of plants and animals. Emphasis is on local marine environments and global environmental issues.

**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.

**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.

**175 Cells, Microbes, and Life (3) [GE]**

*Intended for non-biology majors.* Current understanding of living systems as advanced by our knowledge of the invisible world represented by cells and microorganisms. Application of basic principles of physical and biological sciences, experimentation, and the scientific method.

**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.

**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.

**227 Biology Scholars Workshop (2)**

*Prerequisite:* consent of instructor. Must be taken concurrently with BIOL 230. Practice of effective learning strategies to achieve success in BIOL 230 and other science courses. Identification and use of resources to support achievement in science.

**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.

**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.

**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.

**305 Marine Animals and Plants of the California Coast (3) [GE]**

*Prerequisite:* one course in college biology. Intended for non-biology majors. Identification, biology, and conservation of the organisms of local beaches, lagoons, salt marshes, and tidepools. Classwork, 2 units; field work, 1 unit.

**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.

**313 Principles of Ecology (3) [GE]**

*Prerequisite:* one course in college biology or an environmentally-oriented subject. For biology majors (except ecology), majors in environmental studies, and non-majors. Ecological principles and methods. Introduction to population, community, and ecosystem ecology. Trips to marine, freshwater, and terrestrial habitats. Classwork, 2 units; laboratory and fieldwork, 1 unit.

**314 Ecological Stewardship (2)**

*Prerequisites:* BIOL 230 and 240 or consent of instructor. The science underlying ecological stewardship programs in the Bay Area. Visits to sensitive natural areas and interaction with conservation practitioners. Classwork, 1 unit; fieldwork, 1 unit.

**317 California's Ecological Legacy (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.

**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.

**321 Magic, Myths, and Medicine--A History of Medicine (3) [GE]**

*Prerequisite:* one course in college biology and/or history. Intended for non-majors. Medical concepts concerned with causes, treatments, and preventions of diseases (and injuries) during pre-historical times; and advances in the 19th and 20th centuries.

**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.

**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.

**328 Human Anatomy (4)**

*Prerequisite:* one course in college biology. Intended for non-majors. Gross structures of the human body. Classwork, 3 units; laboratory, 1 unit. Extra fee required.

**329 Human Anatomy (5)**

*Prerequisite:* one course in college biology. Intended for biology majors. Gross structures of the human body. Classwork, 3 units; laboratory, 2 units. Extra fee required.

**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.

**331 Physiology of Aging (3) [GE]**

*Prerequisite:* one course in college biology. Anatomical and physiological changes in humans associated with aging; review of current research and theories of gerontology.

**333 The Genetic Revolution (3) [GE]**

*Prerequisite:* one course in college biology or consent of instructor. Intended for non-majors. Principles of genetics and the meaning and impact of the new genetic technology in relation to society. Genetic constitution of human populations; genetic intervention in human disease, the heredity/environment controversy, and ethical issues.

**335 The Origin of Life (3)**

*Prerequisite:* one course in college biology. Intended for non-majors. Origin of life problem: history of spontaneous generation as background for current simulation paradigm; underlying assumptions and limitations of current methods; patterns in prebiological chemical evolution.

**337 Evolution (3) [GE]**

*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.

**343 Cellular and Molecular Immunology (3) [GE]**

*Prerequisites:* BIOL 350 and CHEM 340 with a grade of C or better. Recommended for students in cell and molecular biology, physiology, and biochemistry. Not intended for clinical science students. Basis of cell mediated and humoral immunity: molecular approaches which have shed light on cellular interactions, immune specificity and diversity, regulation, hypersensitivity, autoimmunity, transplantation, and cancer.

**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.

**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. Structure and function of the cell. Molecular basis of cellular interactions and malfunctions.

**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.

**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.



**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.

**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 mutagenesis, and molecular evolution. Ethical questions.

**358 Experiments in Molecular Biology (4)**

*Prerequisites:* BIOL 350, 355, and either BIOL 351 or 402, and consent of instructor. Intended for biology majors. RNA isolation, cDNA synthesis, polymerase chain reaction, plasmid construction, blotting, and computer analysis. Classwork, 2 units; laboratory, 2 units

**361 Human Genetics (3)**

*Prerequisite:* grade of C or better in BIOL 355 or equivalent. Selected topics in human population genetics, human chromosomes and their anomalies, and the biochemical basis of genetic traits.

**380 Comparative Embryology (3)**

*Prerequisites:* grade of C or better in BIOL 230 and 240; BIOL 350 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.

**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.

**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.

**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.

**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.

**401 General Microbiology (3)**

*Prerequisites:* BIOL 230, 240; CHEM 333 with a grade of C or better. Must be taken concurrently with BIOL 402. 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.

**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.

**411 Environmental and Industrial Microbiology (4)**

*Prerequisites:* BIOL 401, 402 with a grade of C or better. Intended for biology majors. Use of microbes in food and beverage production and in industrial fermentations; water quality and sewage treatment; quality control procedures in industrial laboratories. Classwork, 2 units; laboratory and field work, 2 units.

**420 General Virology (2)**

*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.

**421 General Virology Laboratory (2)**

*Prerequisites:* BIOL 420 or concurrent enrollment. Intended for biology majors. Techniques of isolation, culture, assay, purification, and identification of viruses; design and interpretation of quantitative experiments illustrating steps in virus infection and multiplication.

**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.

**435 Immunology (3) [GE]**

*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.

**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.

**439 Medical Mycology (4)**

*Prerequisites:* BIOL 401 and 402 with a grade of C or better or BIOL 504. Recommended: BIOL 435. Intended for biology majors. Fungi pathogenic for humans: classification, identification, disease manifestations, treatment, and epidemiology. Classwork, 2 units; laboratory, 2 units.

**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.

**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.

**450 Biology of the Protozoa (3)**

*Prerequisites:* BIOL 230, 240. Intended for biology majors. Major groups of protozoa: their physiology, morphogenesis, nutrition, ecology, and unique attributes.

**451 Protozoology Laboratory (2)**

*Prerequisite:* BIOL 450 (may be taken concurrently). Intended for biology majors. Groups of protozoa; methods for working with eukaryotic microorganisms, their life as cells and organisms, and their major ecological roles. Classwork, 1 unit; laboratory, 1 unit.

**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.

**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.

**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.

**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.

**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 proce-

dures. Classwork, 2 units; laboratory, 1 unit; field work, 1 unit.

#### 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.

#### 475 Herpetology (3)

*Prerequisite:* BIOL 470 or equivalent. Intended for biology majors. Evolution, classification, and distribution of amphibians and reptiles. The ecology and behavior of California species. Classwork, 2 units; laboratory and fieldwork, 1 unit. Two weekend field trips.

#### 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.

#### 480 Mammalogy (4)

*Prerequisite:* BIOL 230 and 240; BIOL 470 recommended. Intended for biology majors. Evolution, classification, distribution, behavior, and ecological relationships of mammals. Identification of local species. Classwork, 2 units; laboratory and fieldwork, 2 units. One weekend field trip required.

#### 482 Animal 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 terrestrial, freshwater, and marine environments. Classwork, 2 units; laboratory, 1 unit; fieldwork, 1 unit. One weekend trip.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 508 Plants and Human Affairs (4)

F

*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, 3 units; laboratory, 1 unit.

#### 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 fieldwork, 3 units.

#### 524 Plant Molecular Biology (3)

*Prerequisites:* BIOL 230, 240, 355, and CHEM 130, or consent of instructor. Intended for biology majors. Structure and function of plant cells. Molecular mechanisms of plant cell-cell communication and cell-environmental signal interaction. Molecular mechanisms of plant growth and development and its applications in genetic engineering and biotechnology.

#### 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.

#### 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.

#### 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; fieldwork, 1 unit.

#### 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.

#### 532 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.

#### 535 Remote Sensing of Wetlands and Coastal Zones (4)

F

*Prerequisite:* college course in statistics or biometry. Theory and applications of using remotely-sensed imagery for investigating, mapping, and monitoring wetlands and coastal environments. Visual interpretation and digital image processing of both air photos and satellite imagery. Classwork, 3 units; laboratory, 1 unit. (Also offered as GEOG 613.)

#### 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 fieldwork, 2 units.

#### 556 Natural History of Marine Invertebrates (4)

*Prerequisites:* BIOL 230, 240. *Recommended:* BIOL 555. Intended for biology majors. Ecological study and identification of marine invertebrates inhabiting local near-shore environments. At least one weekend field trip required. Classwork, 2 units; laboratory and field work, 2 units.

#### 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.

#### 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.

#### 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.

#### 580 Limnology (3)

*Prerequisites:* BIOL 230, 240; CHEM 111-112. *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 fieldwork, 1 unit.

#### 582 Biological Oceanography (3)

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Physical characteristics of oceans; biol-

ogy of plankton and benthos, emphasizing production and food webs. Identification, sampling, and productivity measurements of marine organisms. Classwork, 2 units; laboratory and field work, 1 unit.

#### 584 Marine Microbial Ecology (4) F

*Prerequisites:* BIOL 230, 240, and CHEM 111. Biology and ecology of marine microorganisms: phytoplankton, bacteria, and viruses; functions of these organisms on global, regional, and local scales. Classwork, 3 units; laboratory and fieldwork, 1 unit.

#### 585 Marine Ecology (4)

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Plant and animal relationships in near-shore marine communities; temperate zone communities of the central California coast. Classwork, 2 units; laboratory and field work, 2 units.

#### 600 General Animal Behavior (4)

*Prerequisites:* BIOL 230, BIOL 240. Intended for biology majors. Vertebrate and invertebrate animal behavior; perception of the external world; navigation; instinct and learning; motivation; social behavior; with methods of analysis and individual problems. Classwork, 2 units; laboratory and field work, 2 units.

#### 603 Behavior of Captive Wild Animals (3)

*Prerequisites:* BIOL 230, 240, or a college course in animal behavior. Intended for biology majors. Techniques for studying animals in zoos, aquariums, wild life parks, and research stations with major focus on mammals. Ethological and experimental approaches. New methods of understanding, nurturing, and preserving animals.

#### 604 Behavior of Captive Wild Animals Laboratory (1)

*Must be taken concurrently with BIOL 603.* Basic enrichment electronics and equipment techniques. Each student is responsible for design of an enrichment project. Students construct selected projects for testing at the San Francisco Zoo.

#### 606 The Behavior and Physiology of Marine Mammals (3)

*Prerequisite:* BIOL 612 or 630. Intended for biology majors. Distribution, natural history, behavioral and physiological specialization and species' survival status. Results of both field and laboratory research with attention to marine mammals of the North Pacific region.

#### 607 Conservation and Management of Marine Mammals (3)

*Prerequisites:* BIOL 230, BIOL 240, and BIOL 355. Scientific principles involved in the conservation and management of marine mammals. Current regulations and methodologies are critically reviewed and evaluated. Controversies concerning conservation, ecological balance, and specific governmental constraints.

#### 608 Projects in Conservation and Management of Marine Mammals (2)

*Prerequisites:* BIOL 230, BIOL 240, BIOL 355, and consent of instructor. BIOL 607 may be taken concurrently. Research projects important in the conservation and management of marine mammals. In-

struction in the preparation of scientific findings for publication. Grading based on class participation and a journal-style report. Classwork, 1 unit; laboratory, 1 unit.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 617 Advanced Topics in Physiology (3)

*Prerequisites:* BIOL 240, BIOL 612, or consent of instructor. Topics include basic principles of gastrointestinal physiology, growth and metabolism, hematology, renal and liver function, exercise and extreme physiology (high altitude and diving).

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 631 Animal Physiology Laboratory (2)

*Prerequisite:* BIOL 630 (may be taken concurrently). Intended for biology majors. Experiments on enzyme, blood, organ, and whole animal systems. Theory and use of polygraphic, electrophoretic, spectrophotometric, gas analytic, calorimetric, and other techniques. Classwork, 1 unit; laboratory, 1 unit.

#### 640 Cellular Neurosciences (3) F

*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.

#### 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.

#### 650 Curriculum and Instruction in Science (4)

*Prerequisites:* senior or graduate standing and consent of instructor. Students work with science teachers, grades 6-12, on-site in SFUSD schools to deliver inquiry-based teaching aligned with Science Standards. Classwork, 2 units; laboratory, 2 units.

#### 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 a maximum of 6 units.

#### 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

##### 700 Biological Literature (2)

*Prerequisite:* graduate or senior standing. Methods and techniques in the use of the literature in the biological sciences. Must be taken prior to or concurrently with either a seminar or approved research in biology.

##### 705 College Science Teaching (3)

*Prerequisites:* graduate status and consent of instructor. Fundamental understanding and skill in college science teaching from both theoretical and practical viewpoints. Major issues in college science teaching.

##### 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 advanced statistical analyses. No prior computer experience required. Classwork, 2 units; laboratory, 1 unit.

##### 727 The Biochemistry and Physiology of Lipids (3)

*Prerequisites:* graduate or senior standing and a course in biochemistry; physiology recommended. The biochemistry of lipids and their physiological importance. Metabolic regulation, interrelationships with carbohydrate metabolism, membrane structure and function, atherosclerosis, obesity, and the contribution of brown fat to thermogenesis.

##### 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.

##### 732 Biology and Chemistry of Signaling Pathways (3)

*Prerequisite:* classified graduate status or consent of instructor. An interdisciplinary presentation of the mechanisms by which extracellular stimuli trigger intracellular biochemical reactions that lead to alterations in cellular function. (Also offered as CHEM 846.)

##### 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.

##### 740 Cell Ultrastructure Seminar (3)

*Prerequisites:* graduate or senior standing and BIOL 350. The structure, function, and fate of cell organelles: their interactive behavior during such cell

functions as division, ingestion, digestion, growth, secretion, and motility.

##### 741 Electron Microscopy (4)

*Prerequisite:* graduate or senior standing, BIOL 350, 391, 401 or 450, and consent of instructor. Preparation of biological materials for both transmission and scanning electron microscopy, operation of the electron microscopes, and interpretation of micrographs. Classwork, 1 unit; laboratory, 3 units. Extra fee required.

##### 743 Recombinant DNA Techniques (3)

*Prerequisites:* graduate standing, BIOL 357, CHEM 340 and 341. (BIOL 357 may be taken concurrently.) Techniques and design of strategies used in recombinant DNA and RNA research. Societal issues.

##### 744 Experiments in Genetic Engineering (4)

*Prerequisites:* classified graduate status or consent of instructor; BIOL 350/351 or 401/402; BIOL 743; CHEM 343. (BIOL 743 may be taken concurrently.) Techniques in recombinant DNA experiments in prokaryotic and eukaryotic systems. DNA isolation, amplification (PCR), labeling, and hybridization. Training in bioinformatics and experimental design. Safe and ethical applications of techniques. Classwork, 2 units; laboratory, 2 units. Extra fee required.

##### 750 Microbial Metabolism and Biotechnology (3)

*Prerequisites:* graduate or senior standing; BIOL 401, CHEM 340. Metabolic properties of microorganisms with applications to biotechnology and research.

##### 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.

##### 780 Bioinformatics (4)

*Prerequisites:* BIOL 357, CHEM 341. Computer-based methods of accessing and analyzing biological information applied to the sequence and structure of proteins and nucleic acids. Classwork, 3 units; laboratory, 1 unit.

##### 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.

##### 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.

##### 810 Advanced Evolution (3)

*Prerequisites:* graduate or senior standing, BIOL 337 or equivalent, or consent of instructor. Evolutionary genetics, sexual selection, modes of speciation, molecular evolution, natural selection, and macroevolution.

##### 812 Systematic Biology (3)

*Prerequisites:* graduate or senior standing and one upper division taxonomy course, or consent of instructor. Evolutionary relationships among species, theoretical and practical problems in animal and plant systematics, species concepts, approaches to classification, character definition, and methods of species determination.

##### 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.

##### 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.

##### 820 Ecology of Estuaries and Lagoons (3)

*Prerequisite:* graduate or senior standing. Physical and chemical attributes of estuaries and lagoons. Interrelationships of planktonic, benthic, and salt marsh communities in the productivity, food webs, and population of San Francisco Bay. Classwork, 2 units; field work, 1 unit.

##### 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.

##### 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.

##### 835 Computer Simulations in Biology (4)

*Prerequisite:* computer programming course, such as CSC 210 or BA 461. Computer methods are applied to biological simulations. Classwork, 3 units; laboratory, 1 unit. Laboratory hours to be arranged.

##### 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.

**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.

**848 Behavioral Ecology (3)**

*Prerequisite:* BIOL 600 or equivalent course in animal behavior or consent of instructor. Evolution of behavior: optimal foraging, predation, sexual selection, social organization, habitat selection, and communication.

**850 Advanced Animal Behavior (4)**

*Prerequisites:* graduate or senior standing, BIOL 600 or one seminar on ethology or consent of instructor. Selected topics on animal behavior. Quantitative measurements of instinctive action; motivation analysis. Classwork, 2 units; laboratory and fieldwork, 2 units.

**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 4 times when topics vary.

**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 for a total of 4 units when topics vary.

**863 Advances in Marine Biology (2)**

*Prerequisites:* graduate status and consent of instructor. Topic to be specified in Class Schedule. May be repeated 4 times when topics vary.

**864 Advances in Microbiology (2)**

*Prerequisites:* graduate status and consent of instructor. Topic to be specified in Class Schedule. May be repeated 4 times when topics vary.

**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 4 times when topics vary.

**866 Advances in Conservation Biology (2)**

*Prerequisite:* graduate status or consent of instructor. Topic to be specified in Class Schedule. May be repeated 4 times when topics vary.

**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.

**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.

**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.

**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.

**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.

**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.

**898 Master's Thesis (4)**

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

**BIOMEDICAL LABORATORY SCIENCE**

Courses are grouped by subject area: **700s**—courses for the internship program; **710s**—general biomedical laboratory science electives; **720s**—laboratory administration; **730s**—hematology; **740s** and **840s**—clinical chemistry; **750s** and **850s**—microbiology; **760s** and **860s**—immunology; **770s** and **870s**—virology; **880s**—seminars; **890s**—research and special study. Courses with laboratory have numbers ending in 8 or 9; e.g., 708, 868, etc. Lecture courses in each subject area that can fulfill the M.S. degree requirement for foundation courses have numbers ending in 0; e.g., 750, 850. Course descriptions for each course are available from the instructors and the Center for Biomedical Laboratory Science (CBLS) office. Each semester CBLS publishes the courses offered and their descriptions.

*Consent of instructor is required for participation in all biomedical laboratory science courses. Enrollment priority is given to majors.*

**Undergraduate Course****699 Special Study (1-3)****Graduate Courses****Clinical Laboratory Science Internship Courses****701 On-Campus Laboratory Internship (4-15)**

*Prerequisites:* acceptance into the CBLS Clinical Training Program. For advanced undergraduates.

**702 Off-Campus Clinical Laboratory Internship (6,11-15)**

*Prerequisites:* BIOM 701.

**703 Biostatistics and Quality Control (2)****704 Quality Control Workshop (1)****General Biomedical Laboratory Science Electives****706 Contemporary Clinical Science Issues (1)****707 Bridge to Clinical Laboratory Practice (1)**

*Prerequisite:* BIOM 701. Must be taken concurrently with BIOM 702. Open only to CLS interns in the clinical training of BIOM 702, using didactic modules, peer and faculty discussions, etc. CR/NC grading only.

**708 Clinical Laboratory Instrumentation (2-3)**

Classwork, 1 or 2 units; laboratory, 1 unit.

**710 Laboratory Administration (2-3)****711 Pathophysiology (2)****713 Laboratory Techniques for Developing Nations (2)****715 Flow Cytometry (2)****716 Laboratory Instrumentation (3)****718 Flow Cytometry with Laboratory (3)**

*Prerequisite:* BIOM 715. Classwork, 2 units; laboratory, 1 unit.

**719 Theory and Practice of Molecular Histology (2)****801 Biomedical Laboratory Science Literature (1)****802 Biomedical Laboratory Research Design (1)****810 Advances in Biomedical Laboratory Science Issues (2)**

*Prerequisites:* graduate status. Topic to be specified in the Class Schedule.

**Laboratory Administration Electives**

The course titles describe the components of the principles and operations of clinical laboratory administration. BIOM 720 is the prerequisite for the other electives.

**720 Managing Laboratory Stress (2)****721 Managing Time in the Laboratory (2)****722 Laboratory Personnel Effectiveness (2)****723 Laboratory Cost Control (2)****724 Quality Assurance and CLIA 88 (3)****727 Healthcare Policy, Managed Care, and the Biomedical Laboratory (2)**

*Prerequisite:* B.S. in Clinical Science or equivalent.

**728 Clinical Laboratory Computer Applications (3)**

Classwork, 2 units; laboratory, 1 unit.

**Hematology Electives**

Molecular and clinical discussions of hematological aspects of disease; presentations include genetics, morphology, diagnostic techniques, case studies, therapy, etc. The prerequisite for these electives is BIOL 625 or consent of instructor.

**731 Leukocyte Hematology (2)****732 Bone Marrow Hematology (2)****733 Thrombosis and Hemostasis (2)****734 Abnormal Hemoglobins and Thalassemias (2)****736 Clinical Laboratory Medicine: HIV and AIDS (2-3)****738 Thrombosis and Hemostasis (2)**

Classwork, 1 unit; laboratory, 1 unit.

**Clinical Chemistry Electives**

Principles of biochemistry involved with diseases and the chemical analyses used in clinical laboratories. The prerequisite for these electives is a course in biochemistry.

**740 Immunoassay Techniques (2-3)****741 Mediators of Inflammation in Health and Disease (2)****742 Human Cancer Markers (2)****743 Cell Adhesion Molecules in Health and Disease (2)****744 Molecular Mechanisms of Vascular Disease (2)**

*Prerequisites: basic biochemistry and cell biology.*

**745 Clinical Pharmacology of Therapeutic and Abuse Drug Monitoring (2)**

*Prerequisite: basic organic and biochemistry.*

**746 Clinical Endocrinology (3)****748 Clinical Enzymology (2)**

Classwork, 1 unit; laboratory, 1 unit.

**749 Nucleic Acid Probe Methods: Clinical Laboratory Application (2)**

Classwork; 1 unit; laboratory, 1 unit.

**840 Clinical Toxicology: Principles and Laboratory Practice (2)**

*Prerequisite: basic physiology and biochemistry.*

**848 Clinical Applications of Protein Chemistry (2)**

Classwork, 1 unit; laboratory, 1 unit.

**Microbiology Electives**

Course titles describe the components of microbiology covered in each course. The prerequisite for these electives is BIOL 430 or consent of instructor.

**750 Molecular Medical Microbiology (2)**

*Prerequisites: biochemistry, microbiology, or consent of instructor.*

**751 Clinical Epidemiology (2)****753 Anaerobic Infections (2)****754 Pharmacology of Antibiotics (2)****755 Sexually Transmitted Diseases (2)****756 Opportunistic Infections (2)****758 Molecular Methods in Medical Microbiology (2 or 4)**

*Prerequisites: graduate status, biochemistry and microbiology with laboratory, or consent of instructor.*  
Classwork, 1 or 2 units; laboratory, 1 or 2 units.

**759 Medically Important Protozoa (2)**

Classwork, 1 unit; laboratory, 1 unit.

**850 Public Health Microbiology (3)****853 Molecular Medical Parasitology (2)**

*Prerequisite: parasitology or basic molecular biology.*

**858 Diagnostic Mycology I (2)**

Classwork, 1 unit; laboratory, 1 unit.

**859 Diagnostic Microbiology (2)**

Classwork, 1 unit; laboratory, 1 unit.

**Immunology Electives**

Course titles describe the components of immunology that are covered in each course. The prerequisite for these electives is BIOL 435 or consent of instructor. BIOM 760 or equivalent is the prerequisite for all immunology courses numbered above BIOM 760.

**760 Molecular and Cellular Immunology I (2)****761 Molecular and Cellular Immunology II (3)****762 Autoimmune Responses (2)****763 Immunoregulation (2)****764 Transplantation Immunology I (2)****765 Transplantation Immunology II (2)****768 Topics in Medical Laboratory Science (2-5)**

*Topic to be specified in Class Schedule.*

**861 Novel Vaccine Strategies (2)****Clinical Virology Electives**

Course titles describe the subjects covered in each course. The prerequisites for these electives are BIOL 420 and BIOL 421 or consent of instructor.

**770 Medical Molecular Biology (3)****771 Host Response to Viral Infections (2)****772 Persistent Viral Infections (2)****773 Medical Molecular Biology II (2)**

*Prerequisite: BIOM 770.*

**774 Human Retroviruses (2)****775 Viruses in Gene Therapy (2)**

*Prerequisite: undergraduate or graduate course in molecular biology.*

**777 Infections in AIDS and ARC (2)****879 Viral Culture and Diagnostics (4)**

Classwork, 2 units; laboratory, 2 units.

**886 Seminar in Virology (1)**

May be repeated with consent of program chair.

**888 Fundamentals of Medical Virology (2)**

Classwork, 1 unit; laboratory, 1 unit.

**Pharmacology and Toxicology Electives**

Course titles describe the specific subjects covered in each course. The common prerequisites for these electives are CHEM 347 and BIOL 612.

**780 Clinical Pharmacology (2)**

*Prerequisites: CHEM 348.*

**789 Protein Chemistry: Clinical Applications (2)**

*Prerequisite: undergraduate degree in biochemistry.*  
Classwork, 1 unit; laboratory, 1 unit.

**Biomedical Laboratory Science Seminars**

Faculty direct and evaluate student presentations of seminars on selected advanced topics. Satisfactory completion of one seminar course is required for the M.S. Seminars may be repeated with consent of program chair.

**880 Reading and Presenting Biomedical Science Papers (2)****881 Seminar in Clinical Chemistry (1)****882 Seminar in Microbiology (1)****883 Seminar in Hematology (1)****884 Seminar in Immunology (1)****885 Seminar in Immunohematology (1)****Research, Special Study, and Work Experience Courses**

Special study projects are designed for completion in one semester and are not part of the completion of the research requirement of the M.S. The research requirement can be fulfilled by BIOM 896 plus either 895 or 898. All research courses require faculty and departmental approval prior to registration; detailed guidelines are available in the CBLS office. Research, special study, and work experience are graded CR/NC. BIOM 896 is graded on the A-F scale. A written summary of each semester's activities must be approved by the instructor and filed with the department before grades are assigned.

**890 Biomedical Laboratory Science Cooperative Work Experience (1)****895 Research Project (3)**

Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**896 Directed Reading (1)****897 Research (1-6)****898 Master's Thesis (3)**

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

**899 Special Study in Biomedical Laboratory Science (1-3)****BLACK STUDIES****Undergraduate Courses****101 Introduction to Black Studies (3)**

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

**110 Critical Thinking and the Third World Experience (3) [GE]**

Developing the basic skills involved in understanding, criticizing, and constructing arguments by us-

ing materials reflective of experiences of Blacks and the third world culture in the United States.

**111 Black Cultures and Personalities (3) [GE] F**  
The cultural influence on the development of Black personality configurations.

**200 Introduction to Black Psychology (3) [GE] F,S**

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

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

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.

**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.

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

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

**205 Issues in Black Gerontology (3) [GE]**

*Prerequisite: BIOL 100.* Gerontological theories and concepts as they relate to the Black experience. Biological theories of aging, the epidemiology of chronic illness, and the delivery of health services.

**210 Black Literature (3) [GE]**

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

**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.

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

*Prerequisite: 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. ABC/NC grading.

**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.

**217 African Rhythm and Drum Expression (3) [GE]**

Basic and complex drumming patterns of Central Africa. Performance of rhythmic patterns individually and in small groups. Variations among drumming styles used as accompaniments to traditional dances and those used in contemporary musical compositions.

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

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

**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.

**233 African Mythology and Black Consciousness (3)**

The core and critical foundation that myth serves to shape and influence Black consciousness. Residual and resonant import of African mythology in the shaping of Black thought and action.

**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.

**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.

**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.

**270 Egyptian Language (Hieroglyphics) (3)**

The Egyptian language, its hieroglyphs, grammar, and syntax. The roots and cultural origins of the language.

**280 Introduction to African Philosophy (3) [GE]**

Nature and range of reflection on basic aspects of human experience, thought, and activity inspired by African groups, societies, and their environments. Cosmology and teachings conveyed through art, architecture, and rituals; African vision of the world and solving everyday life problems.

**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.

**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.

**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.

**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.

**303 Afro-American History (3) [GE] F,S**

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

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

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. (Page reference for U.S. history requirement can be found in the Index.)

**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.

**306 Blacks in the Caribbean (3)**

Historical origin of the Caribbean from the Indian through the African periods. Issues including color caste maroon societies, Garveyism and its offshoot Rastafarianism, Caribbean literature, independence and neocolonialism.

**310 Black Men and Women Athletes: The Quest for Glory (3)**

*Prerequisite: upper division standing or consent of instructor.* Examination of the influence Black male and female athletes have had on American society and the impact American culture and values have had on the human experience of Black men and women athletes.

**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.

**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.

**326 Black Religion (3) [GE] F,S**

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

**330 African American Gospel Workshop (3)**

*Prerequisite: upper division standing or consent of instructor.* Workshop on gospel music: traditional African antecedents of gospel music, religious and secular forms developed, and economic and political factors shaping gospel music. Guest appearance by known gospel artist. Class culminates in student performance.

**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.

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

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

**375 Law and the Black Community (3) [GE] F,S**

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.

**376 Government, the Constitution, and Black Citizens (3) [US,CA] F,S**

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. (Page reference for requirement can be found in the Index.)

**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.

**400 Black Arts and Humanities (3) [GE] F,S**

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

**411 African/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.

**440 Black Oratory (3)**

Oratory as part of the Black American's political, social, and intellectual history; issues, ideas, spokesmen, and methods of advocacy. Analysis, preparation, delivery of speeches.

**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.

**456 The History of Funk (3) [GE]**

*Prerequisite: upper division standing or consent of instructor.* Social change in Black America since 1965; developments in gospel, jazz, soul, funk, and rap music.

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

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

**516 Research Methods (3)**

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

**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.

**551 Fieldwork in Black Studies (3)**

*Prerequisite: upper division standing or consent of instructor.* Supervised field work in community organizations enabling students to apply knowledge gained in classes to the solution of problems and the development of the community. Classwork, 2 units; fieldwork, 1 unit.

**600 Proseminar in Black 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 Black studies curricula and programs.

**617 Black Dance Experience (3) [GE]**

Traditional and contemporary dance forms of the Congo and other Central African nations. Social function of dance from ritual contexts to those of daily life activities; interdependence of dance and drumming. Classwork, 2 units; laboratory, 1 unit. (Also offered as DANC 617.)

**630 Sponsored Travel and Study (3)**

*Prerequisite: upper division standing or consent of instructor.* Country to be specified in Class Schedule. Sensitivity and understanding of complex, domestic, and world problems are impressed on students

by traveling and studying in Africa. May be repeated for a total of 6 units when country varies.

**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.

**650 Teaching the Black Experience (3) [GE]**

Linguistic, social, economic, and cultural problems confronting Black students in the public schools. Recognizes the Black parallel culture; the Black experience within the total spectrum of world history.

**660 Civil Rights Movement and Education (3) [GE]**

*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.

**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.

**678 Excellence and Equity: Black Children and Youth (3) [GE]**

*Prerequisite: 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.

**685 Projects in the Teaching of Black 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.

**699 Special Study (1 or 3) F,S**

*Prerequisites: consent of major adviser, department chair, and instructor.* Supervised, individual study of a particular problem in Black Studies. The student must state the problem, the method of data gathering, and the method of data analysis.

**Graduate Courses****705 Seminar in Black Studies (3)**

*Prerequisite: consent of instructor.* Historical and intellectual foundation of the Black studies discipline: critical knowledge base, cultural grounding, intel-



lectual orientation. Major philosophical, cultural, political, economic, and social developments and traditions found in African and African American society.

## BROADCAST AND ELECTRONIC COMMUNICATION ARTS

### Undergraduate Courses

#### 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.

#### 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.

#### 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.

#### 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.

#### 235 Digital Media Basics (3)

*Enrollment priority given to BECA majors.* Fundamentals of digital communication technologies and their application in audio, radio, television, and interactive media.

#### 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.

#### 241 Video Laboratory (1)

*Prerequisites: BECA major and departmental permission. Must be taken concurrently with BECA 240.* Extra fee required.

#### 300 Broadcast and Electronic Communication Arts Research (3)

*Prerequisite: ENG 214 or equivalent with a grade of C or better, or passing score on Junior English Proficiency Essay Test (JEPET).* *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.

#### 301 Media Literacy in the Electronic Culture (3) [GE]

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*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. Not open to BECA majors.

#### 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.

#### 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.

#### 321 Critical Study of Popular Culture (3) [GE]

*Prerequisite: consent of instructor; enrollment priority given for BECA majors.* Public arts from the standpoint of structures and themes; relationship to social value systems; form, vision, and function in the public arts.

#### 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.

#### 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.

#### 335 Audio for Video (3)

*Prerequisites: BECA 230/231; BECA 240/241 and/or consent of instructor; BECA major status.* Production theory and practice as applied to audio recording for video. Pre-production planning and location/studio recording situations.

#### 340 Media Aesthetics I (3)

*Prerequisites: upper division standing and 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.

#### 350 Media Performance I (3)

*Prerequisites: BECA 240, 241; BECA major status; and consent of instructor.* Performance training for the electronic media; exercises for improving articulation, pronunciation, interpretation, vocal quality, and communicative abilities; the international phonetic alphabet. Laboratory.

#### 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.

#### 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.

#### 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.

#### 422 Social Aspects of Electronic Media (3) [GE]

*Enrollment priority given for BECA majors.* 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.

#### 423 Economic Aspects of Broadcasting and Electronic Media (3)

*Prerequisites: BECA 200, junior standing, and consent of instructor.* *Enrollment priority given for 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.

#### 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.

#### 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.

#### 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.

#### 433 Beginning Music Recording Workshop (3)

Current methods of commercial recording, from studio setup to finished master tape, using various types of musical groups. Laboratories in multi-track music mixing.

**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.

**437 Digital Audio: Theory and Practice (3)**

*Prerequisites:* BECA 230/231 and consent of instructor. Digital audio for broadcasting and electronic media including digital recording (Pulse Code Modulation), sampling, musical instrument digital interface, computer-based systems and SMPTE time code synchronization for television and video.

**440 Media Aesthetics II (3)**

*Prerequisites:* BECA 240, 241, 340, or equivalents; BECA major; and consent of instructor. Problems in applied aesthetics. Laboratory.

**460 Introduction to News on Broadcast and Electronic Media (3) [GE]**

*Prerequisites:* BECA 200; enrollment priority given to BECA majors. 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.

**462 The Television Documentary in the U.S. (3)**

*Prerequisites:* BECA 200, 300, 340, and 370. 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.

**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.

**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. (Also offered as WOMS 485.)

**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. (Also offered as ITEC 487.)

**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.

**490 Television and Social Change (3) [GE]**

*Prerequisite:* upper division standing. Nature of social change: television's potential--or lack of poten-

tial--to bring about social change, role of television in achieving that change, and critique of relevant programming intended to effect change.

**495 Exploration in Broadcast and Electronic Communication Arts (3)**

*Prerequisites:* junior or senior standing and consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**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.

**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.

**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.

**510 Music Performance Recording and Production (3)**

*Prerequisites:* BECA 230, 231, and 310; BECA major; departmental permission; and consent of instructor. 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.

**515 Television Center Crew (3)**

*Prerequisites:* BECA 240, BECA 241; BECA major. "Hands-on" experience: camera operator, lighting, technical director, audio technician, videotape recorder, floor director. Complex productions with multiple cameras, sets, and lighting set-up.

**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.

**530 Advanced Audio Production II (3)**

*Prerequisites:* BECA 430, DAI 332, or equivalents; BECA major; and consent of instructor. 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.

**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.

**535 Advanced Audio for Video (3)**

*Prerequisites:* BECA 240/241, BECA 335, BECA 430; consent of instructor; BECA major. 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.

**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.

**541 Television/Video Lighting Design (3)**

*Prerequisites:* BECA 240/241 or equivalents, BECA 340; BECA major status; departmental permission; and consent of instructor. Designing and implementing lighting for television productions, black and white and color. Studio experience. Laboratory.

**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.

**546 Electronic Field Production I (3)**

*Prerequisites:* BECA 240, 241, and 340; BECA major; departmental permission; and consent of instructor. Technical and aesthetic elements of video field production and editing. Program conceptualization, pre-production, production, and post-production. Extra fee required.

**547 Desktop Video Production (3)**

*Prerequisites:* BECA 240 and 241, BECA major, and department permission. Use of the personal computer for video production, including software applications for program titling and image manipulation, machine control, and non-linear video editing.

**549 Advanced Desktop Video (3)**

*Prerequisites:* BECA 240/241, BECA 547, BECA major status, and departmental permission. Process of taking video from concept to finished product via computer-based editing: planning, shooting, organizing, and digitizing video for assembly and manipulation in the digital domain.

**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.

**555 Directing Actors for Television and Video (3)**

*Prerequisites:* BECA 545, BECA major status, and audition. Preparation, execution, and recording of dramatic performance for the medium of television. Collaboration between actor and director at every stage of the process.

**560 Radio and Television News Writing (3)**

*Prerequisites:* junior or senior standing; BECA major or consent of instructor. Techniques of radio and television newswriting, reporting, editing, and production. Legal restraints. General assignment field reporting. Laboratory.

**561 News Reporting and Editing for Television (3)**

*Prerequisites:* upper division standing; BECA 240 and 560; BECA major or consent of instructor. 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.

**562 Television/Video Documentary Production (3)**

*Prerequisites:* departmental permission, BECA 370, 462, and 546. Methods for the production of documentaries for broadcast and cable television.

**563 Ethics for Electronic Journalists (3)**

*Prerequisites:* BECA major, departmental permission, BECA 560. Investigation of key theories that guide ethical decision making for broadcast news reporters, producers, and news managers; discussion and practice of how these theories may be applied in broadcast news work.

**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.

**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.

**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.

**590 New Electronic Communication Technologies (3)**

*Prerequisites:* BECA 235 (or equivalent) or consent of instructor. New media technologies that include HDTV, direct broadcast satellite, digital television, wireless cable, telco video, multimedia, the Internet, and virtual reality. Examines how traditional media forms are being shaped by new digital transmission technologies.

**591 On-line News (3)**

*Prerequisites:* BECA 560 and departmental permission. Techniques of gathering, writing, and produc-

ing online news: selected issues and breaking news using text, video, sound, photos, and graphics. Home page design, Internet links, and reporting methods suitable for instantaneous Web dissemination.

**593 Interactive Electronic Media Workshop (3)**

*Prerequisite:* BECA 235 (or equivalent) or consent of instructor. Design and production of online interactive media, such as web pages, with emphasis on broadcast technologies and distribution principles.

**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.

**600 Senior Seminar (3)**

*Prerequisite:* senior standing. Relationships between various academic disciplines and the broadcast media.

**623 Ethics and Responsibility in the Electronic Media (3)**

*Prerequisites:* BECA 200, and either BECA 324 or BECA 423, senior standing, and consent of instructor. Concept of professionalism and roles of law and government, and individuals in determining ethical standards in the electronic media.

**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.

**640 Television/Video Production Planning (3)**

*Prerequisites:* BECA 240 and 241 or equivalents; BECA major; departmental permission; and consent of instructor. Organization and production planning of television programs; budgets, legal clearances, script selection, casting, and logistical problems; duties of the producer, production assistants, and unit manager. Laboratory.

**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.

**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.

**648 Digital Video Editing (3)**

*Prerequisites:* BECA 230/231, BECA 240/241, BECA 340, and BECA 547; BECA major; and consent of instructor. Theoretical and practical aspects of the principles of digitizing and editing videotape.

**650 Sports Broadcasting (3)**

*Prerequisites:* BECA 240/241, BECA 546, BECA major status, or consent of instructor. Live cablecasting of SFSU sports events including production of pre- and post-game features and interviews. Laboratory. May be repeated for a total of 6 units.

**655 Television Dramatic Production (3)**

*Prerequisites:* BECA 230/231, BECA 240/241, and BECA 340; BECA major; consent of instructor; and audition. Students participate in major dramatic production for television. Paired with BECA 755. May be repeated for a total of 6 units.

**660 Television Center News I (3)**

*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 6 units.

**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.

**670 Writing for Interactive Electronic Media (3)**

*Prerequisites:* BECA 370, 470, and consent of instructor. Script writer's role in the creation of interactive electronic media. Differences between conventional screen narrative and interactive story telling and information presentation.

**685 Projects in Teaching in the 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.

**693 Interactive Electronic Media Workshop II (3)**

*Prerequisite:* BECA 593 or consent of instructor. Advanced workshop in design and production of on-line interactive media.

**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 9 units. Laboratory.

**699 Special Study (1 or 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***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.

**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.

**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.

**703 Seminar in Theory and Research (3)**

*Prerequisite:* BECA 700. Graduate seminar in broadcast theory and research methods.

**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.

**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.

**715 Electronic Media and the Multicultural Society (3)**

*Prerequisite:* BECA 700 or consent of instructor. Functions, effects, and uses of electronic media in a multicultural society. Roles of mass media in affecting social, cultural, and political values of minorities. Multicultural perspectives.

**721 Seminar in Criticism of the Public Arts (3)**

*Prerequisites:* BECA 321 and 700 or equivalents or consent of instructor. Bases for evaluation of the public arts; investigation of current critical methods; development of standards of evaluation.

**725 Seminar in Television 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.

**726 Seminar in Educational Media (3)**

Research in educational radio and television; establishing criteria for educational programs; broadcasting developments throughout the world; experiences in creating, producing, and testing experiments in educational broadcasting. (Also offered as ITEC 726.)

**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.

**737 Seminar in Audio Production and Analysis (3)**

*Prerequisites:* BECA 700 and consent of instructor. Theories of perception, aesthetics, communication and technology related to sound design for electronic media. Analysis, interpretation, criticism and production of electronic media sound tracks. Creative experiments with sound design.

**740 Seminar in Experimental Production (3)**

*Prerequisites:* BECA 340 and 700 or equivalents or consent of instructor. Experimental application of aesthetic theory to production problems in the electronic media.

**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.

**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.

**755 Television Dramatic Production (3)**

*Prerequisites:* BECA 700 or consent of instructor. For course description, see BECA 655. Paired with BECA 655. May be repeated for a total of 6 units.

**760 Seminar in News on Broadcast and Electronic Media (3)**

*Prerequisites:* BECA 460 and 700, or consent of instructor. Ethical, legal, and presentational problems in the broadcasting of news and opinions; relating news stories to ideas of sociology and American history, government, and law.

**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.

**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.

**791 Measuring New Media Audiences (3)**

*Prerequisite:* BECA 700 or consent of instructor. Research skills used in defining, describing, and explaining new media audiences. Theory and practice of observational and self-report techniques and research report preparation. Practical applications of research.

**795 Seminar in Broadcast and Electronic Communication Arts (3)**

*Prerequisite:* BECA 700 or consent of instructor. Topic to be specified in Class Schedule. Development of a selected subject area in the field of broadcast communication arts. May be repeated 3 times as topics vary.

**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.

**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.

**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.

**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.

**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.

**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.

### 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.

### 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

#### 101 First Year Experience in Business (2)

*Must be taken concurrently with A U 100.* Development of skills to enhance success as a business student in an academic environment. Exploration of campus resources and facilities. Enhance student responsibility to evaluate educational progress and address any problem areas. CR/NC grading only.

#### 103 Personal Finance (3)

The planning of one's lifestyle regarding career, income and consumption patterns, the protection of property and resources, and the implementation of a consistent money management plan.

#### 120 Legal Environment of Business (3)

*Prerequisite:* ENG 214 recommended. Origin, development, and functions of the law to promote a general understanding of legal reasoning. Framework within which the American and international judicial process takes place. Contracts and related topics; impact of law on economic enterprise.

#### 214 Second Year Written Composition: Business (3) [GE] F,S

*Prerequisite:* ENG 114. Alternate to ENG 214. Understanding of the communication process in business organizations; training in composition introducing principles and mechanics of written communication through letters, memos, and essays. ABC/NC grading.

#### 320 Legal Aspects of Business Transactions (3)

*Prerequisite:* BUS 120. Rights, duties, and obligations arising out of common business events and transactions such as agency, employment, business organizations, ownership of property, and negotiable instruments. Uniform commercial code.

#### 360 Business Communication (3)

*Prerequisites:* SPCH 150, BUS 214, JEPET or equivalents: all C- or better. Written and oral communication including theory, business writing, oral reports, problem-solving, data analysis, use of visual aids in communication, and ethical/legal issues.

#### 440 Ethics at Work II: Business (3) [GE]

*Prerequisite:* PHIL 440. Ethical theory in the business enterprise from a variety of perspectives. Role of work, co-workers, superiors, and environment.

#### 450 Greening of Business (3) [GE]

*Prerequisites:* ENG 214, SPCH 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.

#### 514 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.

#### 682 Seminar in the Environment of Business (3) F,S

*Prerequisites:* MGMT 405, BUS 360. Evolution of business and its interaction with the political, legal, social, and ethical environments. Effects of environment upon managing the business enterprise.

#### 690 Seminar in Business Policy and Strategic Management (3) F,S

*Prerequisites:* average grade of C in BUS 682, MKTG 431, ISYS 363, BA 412, FIN 350, BUS 360, and MGMT 405. Capstone seminar in business policy and strategic management. Emphasizes international environment. Solutions to organizational and functional problems through case studies.

#### 699 Special Projects in Business (1-3) F,S

*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.

### Graduate Courses

#### 781 Financial and Managerial Accounting (4)

*Prerequisite:* passing mathematics proficiency test or BA 510. Financial and managerial accounting. Financial statement preparation; use of accounting information in planning, control, and decision making. Measurement and reporting of financial position and income.

#### 782 Information Systems for Management (3)

*Prerequisite:* BA 510. 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.

#### 783 Economics for Managers (3) F,S

*Prerequisite:* BA 510 or equivalent mathematical literacy; ECON 100 and ECON 101 or equivalent economics literacy. 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.

#### 784 The Political, Social, and Legal Environment of Business (3)

Contemporary social, political, and legal issues that demonstrate the mutual impacts of economic and non-economic institutions both here and abroad.

#### 785 Financial Management (2) F,S

*Prerequisites:* BUS 781, BA 510, BA 512. Conceptual, analytical, and institutional aspects of financial decision making using valuation as a theme. Cash flow analysis, capital budgeting, capital structure, risk-analysis, and working capital management.

#### 786 Operations Analysis (3)

*Prerequisites:* BUS 782 and BA 512. Production management and control with related computer applications: production and distribution planning, inventory control, and demand forecasting. Quantitative analysis.

#### 787 Marketing Management and Multi-national Operations (3) F,S

*Prerequisite:* BUS 783. Marketing concepts, theories, techniques, and marketing environmental parameters, both domestic and international.

#### 788 Management Principles and Organizational Behavior (3) F,S

Management, organization theory, and behavioral analysis applied to conventional management problems in domestic and international environments.

#### 857 Business Management, Ecology, and Environmental Leadership (3)

Impact of business organizations on the natural environment. Approaches to effectively respond to environmental issues.

#### 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. (Also offered as IBUS 859.)

#### 867 Graduate Internship in Business (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.

#### 870 The Wise Manager Seminar: Managing Yourself and Others Wisely (3) F

*Prerequisite:* BUS 788 or consent of instructor. Focuses on personal growth related to difficult situations, interpersonal relations, career management, transformative management, enlightened leadership, centered decision making, humane management, ethics, conflicting values, and team-building.

#### 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.

**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.

**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.

**884 The Political, Social, and Legal Environment of Business (2)**

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.

**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.

**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.

**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.

**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.

**890 Seminar in Strategic Management (3) F,S**

*Prerequisites:* foundation courses; 2 courses from BA/ISYS 814, FIN 819, MGMT 842, or MKTG 860; 2 additional 800-level business courses. Managerial policy and strategy formulation, communication and decision-making within the uncertainties and con-

straints of behavioral, social, and economic environment.

**895 Research Project in Business (3)**

*Prerequisites:* FIN 819, MGMT 842, MKTG 860, and one additional 800-level business course; 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.

**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.

**899 Special Study (1 or 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.

**BUSINESS ANALYSIS**

*Undergraduate Courses*

**110 Mathematical Analysis for Business (3) [GE]**

*Prerequisite:* score of 550 or above on Entry Level Mathematics (ELM) examination or an approved exemption. Basic quantitative reasoning and employment of fundamental mathematical principles to solve business problems. Elements of calculus, probability, mathematics of finance, and decision-making.

**199 Business Analysis Make-up (1)**

*Prerequisite:* consent of instructor. Additional study to make-up for partial equivalents in Business Analysis courses. May be repeated for a total of 2 units.

**212 Business Statistics I (3) F,S**

*Prerequisites:* grade of C- or better in BA 110, MATH 110 or 226. Statistical methods essential in solving business problems including probability distributions, estimation and tests of hypotheses, regression analysis, and index numbers.

**312 Data Analysis with Computer Applications (3) F,S**

*Prerequisite:* BA 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.

**408 Computer Simulation (3) F,S**

*Prerequisites:* BA 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 for-

mulation, execution, and interpretation of results. Classwork, 2 units; laboratory, 1 unit.

**412 Operations Management (3)**

*Prerequisites:* BA 110, BA 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. Management of manufacturing and service operations. Use of computer-based models. Decision analysis, linear programming, forecasting, material requirements planning, project scheduling, quality and inventory management.

**467 Business Analysis Internship (1-3)**

*Prerequisites:* two of the following: BA 312, BA 408, BA 601, BA 604, BA 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 BA concentration. CR/NC grading only.

**510 Elements of Quantitative Analysis (3)**

*Prerequisite:* classified graduate status in business. For students not meeting minimum equivalency standards. Probability, mathematics of finance, and elementary calculus with business applications. May not be used for master's degree GAP requirements.

**512 Elements of Business Statistics (3) F,S**

*Prerequisite:* classified graduate status in business; BA 510 (may be taken concurrently). Estimation, hypothesis tests, regression, and correlation. May not be used for master's degree GAP requirements.

**567 Business Analysis Internship (3) F,S**

*Prerequisites:* consent of instructor, completed application form, 3.0 GPA, and two courses selected from BA 312, 408, 601, 604, and 624. For course description, see ISYS 567.

**601 Applied Management Science (3) F,S**

*Prerequisites:* BA 110, BA 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.

**604 Applied Business Forecasting (3)**

*Prerequisites:* BA 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.

**624 Quality Management (3)**

*Prerequisite:* BA 412. 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.

**699 Special Projects in Business Analysis (1-3)**

*Prerequisites:* consent of instructor, adviser, and department chair. Intensive problem analysis under the direction of a business analysis faculty member. Open only to upper division students who have demonstrated ability to do independent work.

*Graduate Courses***767 Business Analysis Internship (1-3)**

*Prerequisites:* one 800-level BA 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.

**816 Seminar in Business Forecasting (3)**

*Prerequisites:* foundation courses. Theory and practice of short-, medium-, and long-range forecasting within business environments. Quantitative and qualitative forecasting methods. The nature and role of the forecasting function.

**851 Computer Simulation and Decision-making (3)**

*Prerequisite:* BUS 786; BICS 265 recommended. Design and use of computer simulation models in business decision-making. Application to selected problems in various areas of business.

**852 Seminar: Management Science (3)**

*Prerequisites:* BUS 781-BUS 788. Management science techniques focusing on decision analysis and mathematical programming topics. Problem formulation, solution implementation, and operations control.

**853 Seminar in Data Analysis (3)**

*Prerequisite:* BUS 786. Sampling techniques and exploratory methods of data analysis: principle components, factor analysis, discriminant analysis, clustering, discrete multi-variate analysis, multi-dimensional scalings applied to business problems.

**854 Total Quality Systems (3)**

*Prerequisites:* BUS 783, BUS 785, BUS 786, BUS 788. 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.

**855 Supply Chain Management (3)**

*Prerequisites:* BUS 786 and classified graduate status in business. Supply chain design, planning, and operation. Concepts of competitive strategy; aggregate planning and management of the marketing/operations interface; inventory management and procurement strategy; design of supply chain networks; the role of information technology; applications to e-commerce.

**856 Seminar in Project Management (3)**

*Prerequisites:* BUS 786 and classified graduate status in 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.

**899 Special Study in Business Analysis (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.

**CEEL****Credit by Evaluation for Experiential Learning***Undergraduate Course***300 Learning From Prior Experiences (1-6) F,S**

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.

**CHEMISTRY***Undergraduate Courses***100 Preparation for Chemistry (3) F,S**

Elementary concepts of chemistry. Development of skills in applying mathematics to chemistry concepts. Preparation for CHEM 111 or 115. CR/NC grading only.

**101 Survey of Chemistry (3) [GE] F,S**

Basic principles of chemistry. Discussion of compounds (alcohols, ethers, esters, carbohydrates, fats, proteins, enzymes) related to the elementary processes of the human body. Course recommended to accompany CHEM 102.

**102 Survey of Chemistry Laboratory (1) [GE]F,S**

Laboratory to accompany or follow CHEM 101.

**105 Chemistry in the Biosphere (3) [GE]**

Basic chemistry concepts, their relationships to everyday life, and their applications to current controversial issues including nuclear power and genetic engineering.

**107 Exploration of the Chemistry of Plants (3) [GE]**

Chemistry of plants and living organisms. Plant nutrients, soils, photosynthesis, respiration. Primary and secondary plant metabolites. Plant attractants. Plant defenses. Plants and humans: foods from plants, toxic plants, medicinal plants.

**108 Exploration of the Chemistry of Plants Laboratory (1) [GE]**

*Must be taken concurrently with CHEM 107.* Solubilities of plants and related compounds. Structure of soils. Water testing. Molecular modeling of plant related molecules. Plant odors. Plant pigments and defenses: anthocyanins, tannins, alkaloids pH of plant saps. Saponins in plants. CR/NC grading only. Laboratory.

**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.

**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.

**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. Classwork, 3 units; laboratory, 2 units. (Formerly CHEM 111.)

**120 The Nature of Cancer: Molecular Perspective on the Disease and Treatments (3) [GE]**

*Prerequisite:* course in college biology. Examination of the nature of cancer, focusing on three particular cancers (leukemia, prostate cancer, and breast cancer) to study the course and treatment of the disease and the human dimensions of the experience. Appropriate for non-science majors.

**121 Chemistry in the Causes and Prevention of Cancer (3) [GE]**

*Prerequisite:* course in college biology. Introduction to ways in which chemical exposure causes cancer and the essential role of chemicals in cancer prevention. Pathways of exposure to carcinogens. Role of toxicology and epidemiology in assessing cancer risk. Sources of carcinogens. Chemicals as protective agents.

**130 General Organic Chemistry (3) F,S**

*Prerequisite:* CHEM 113 or 115 with a grade of C- or better. Common organic compounds and basic principles. For laboratory, see CHEM 334. Students who have completed CHEM 333 may not take CHEM 130 later for credit. Cannot be used for the chemistry or biochemistry degrees.

**215 General Chemistry II: Quantitative Applications of Chemistry Concepts (3)**

*Prerequisite:* C- or better in CHEM 115 and in 2 of the following courses: PHYS 111, PHYS 121; PHYS 220, PHYS 230, or PHYS 240; MATH 226, MATH 227; or consent of instructor. Quantitative aspects of nuclear, coordination, and quantum chemistry; kinetics; equilibria (acid-base, solubility and buffer); thermodynamics; electrochemistry; spectroscopy; states of matter. (Formerly CHEM 113.)

**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. Laboratory. (Formerly CHEM 114.)

### 280 Chemistry Behind Environmental Pollution (3)

*Prerequisites:* CHEM 111, CHEM 115, or the equivalent. Understanding the various chemical principles and processes which underlie the environmental problems facing society.

### 300 General Physical Chemistry I (3)

*Prerequisites:* CHEM 320 and CHEM 333, PHYS 121 or PHYS 240, MATH 227 or MATH 221, each with a grade of C- or better. Chemical thermodynamics; kinetic theory of gases; properties of solutions. Designed for students in biology, preprofessional curricula, and for biochemistry and chemistry majors.

### 301 General Physical Chemistry II (3)

*Prerequisite:* CHEM 300 with a grade of C- or better. Quantum mechanics, spectroscopy, and statistical mechanics.

### 310 Chemicals: Enticing, Dangerous, Essential (3)

*Prerequisites:* upper division standing and consent of instructor. Provides a working knowledge of modern chemistry and demystifies the field of chemistry as it relates to drug design and disease, choices about food, the environment, and ethical issues that the new technologies bring to society.

### 320 Modern Methods of Quantitative Chemical Analysis (4) F,S

*Prerequisites:* CHEM 113 and 114 or CHEM 215 and 216 with a grade of C- or better. Volumetric, titrimetric, potentiometric, and spectrophotometric analysis; atomic absorption spectroscopy and chromatography. Classwork, 2 units; laboratory, 2 units.

### 333 Organic Chemistry I (3) F,S

*Prerequisites:* CHEM 113 and 114, or CHEM 115 with a grade of C- or better. Principles of organic chemistry. Primarily for students majoring in chemistry and biochemistry.

### 334 Organic Chemistry I Laboratory (2) F,S

*Prerequisite:* CHEM 333 or 130 with a grade of C- or better, or concurrent enrollment in either. Techniques and selected experiments in organic chemistry. Extra fee required. Classwork, 1 unit; laboratory, 1 unit.

### 335 Organic Chemistry II (3) F,S

*Prerequisite:* CHEM 333 with a grade of C- or better. Continuation of CHEM 333.

### 336 Organic Chemistry II Laboratory (3) F,S

*Prerequisites:* CHEM 334 and 335 with a grade of C- or better, or concurrent enrollment in CHEM 335. Experiments in organic synthesis and other areas of organic chemistry. Classwork, 1 unit; laboratory, 2 units.

### 338 Organic Chemistry II: Special Projects Laboratory (3) S

*Prerequisites:* CHEM 334 and 335 with a grade of C- or better, or concurrent enrollment in CHEM 335.

Substitute for CHEM 336. Experiments in organic synthesis and analysis plus a research project directed by faculty. Classwork, 1 unit; laboratory, 2 units.

### 340 Biochemistry I (3) F,S

*Prerequisites:* CHEM 113 or 215, 333, and 335, each with a grade of C- or better. Protein structure and function; carbohydrate metabolism; enzyme kinetics and thermodynamics; electron transport chain.

### 341 Biochemistry II (3) F,S

*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.

### 343 Biochemistry I Laboratory (3) F,S

*Prerequisites:* CHEM 334 and 340 or 349 with a grade of C- or better; CHEM 320 recommended. Chemical and enzymatic experiments involving proteins, carbohydrates, and nucleic acids with emphasis on enzyme kinetics. Utilization of standard and modern biochemical techniques. Extra fee required. Classwork, 1 unit; laboratory, 2 units.

### 347 Clinical Biochemistry (2)

*Prerequisite:* CHEM 340 or 349 with a grade of C- or better. Biochemistry of electrolytes, acid-base balance, hormones, carbohydrates, lipids, proteins, and other substances as they relate to nutrition, disease, and homeostasis of blood components.

### 348 Clinical Biochemistry Laboratory (2)

*Prerequisite:* CHEM 320 with a grade of C- or better. Must be taken concurrently with CHEM 347. Biochemical analysis of blood components using modern instrumentation and techniques. Experimental procedures and clinical significance of abnormal levels of blood components. Extra fee required.

### 349 General Biochemistry (3) F,S

*Prerequisites:* CHEM 113 or 215, and CHEM 130 or 333 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.

### 351 Physical Chemistry I (3) F

*Prerequisite:* PHYS 230 with a grade of C- or better. *Corequisites (may be taken before or concurrently):* CHEM 320, PHYS 240, and MATH 228 or 223. Quantum chemistry, spectroscopy of atoms and molecules, statistical thermodynamics.

### 353 Physical Chemistry II (3) S

*Prerequisites:* CHEM 320, CHEM 351, PHYS 240, and MATH 228 or 223 each with a grade of C- or better. Continuation of CHEM 351. Thermodynamics and kinetic theory.

### 361 Elementary Glass Blowing (1) F,S

*Prerequisite:* one year of college chemistry or consent of instructor. Building scientific glass apparatus. CR/NC grading only. Individualized supervised instruction.

### 370 Computer Applications in Chemistry and Biochemistry (3)

*Prerequisite:* CHEM 320 or CHEM 334. Data acquisition, manipulation, and presentation with emphasis on applications used in CHEM 343 and 452. Computational chemistry applications and networks. Classwork, 2 units; laboratory, 1 unit.

### 380 Chemistry Behind Environmental Pollution (3) [GE]

*Prerequisite:* CHEM 111 or 115. Traditional and contemporary topics in environmental chemistry. Understanding and appreciation of various chemical processes and principles underlying environmental problems facing society.

### 420 Instrumental Analysis of Environmental Samples and Complex Mixtures (3)

*Prerequisite:* CHEM 320. Practical analysis of real world environmental (air, water, and soil) and biochemical (biological fluids, foods) samples using advanced instrumental techniques. Classwork, 2 units; laboratory, 1 unit.

### 425 Inorganic Chemistry (3) S

*Prerequisites:* CHEM 335, CHEM 300 or 351, and CHEM 301 or 353, all with a grade of C- or better. Theories of chemical bonding and their application to inorganic systems with emphasis on transition metal complexes. Structure, physical-chemical properties, and reactivity of metal complexes and organometallic compounds.

### 433 Advanced Organic Chemistry (3) A

*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.

### 443 Molecular Biophysics Laboratory (4)

*Prerequisites:* CHEM 320, CHEM 343, and either CHEM 301 or CHEM 351, all with grades of C+ or better. Experiments using modern biochemical and biophysical techniques to study biological macromolecules. Classwork, 2 units; laboratory, 2 units.

### 452 Integrated Laboratory I (4) F,S

*Prerequisites:* CHEM 320, CHEM 336 or 338, and CHEM 300 or 351 each with a grade of C- or better. Integrated laboratory experiments designed to apply physical-chemical principles and instrumental techniques to the quantitative investigation of chemical systems. Extra fee required. Classwork, 2 units; laboratory, 2 units.

### 453 Integrated Laboratory II (3) F,S

*Prerequisites:* CHEM 425, CHEM 452, CHEM 300 or 351, and CHEM 301 or 353 with a grade of C- or better. CHEM 425 may be taken concurrently. Advanced experiments and data analysis in physical and inorganic chemistry. Extra fee required. Classwork, 1 unit; laboratory, 2 units.

### 470 Research (3) F,S

*Prerequisites:* CHEM 320, 336, and 300 or 351, and consent of instructor. Intended for superior students. Laboratory and library research work focused on chemistry or biochemistry problems. Formal



written report required. May be repeated for a maximum of 6 units. Laboratory.

**599 Chemistry, Its Evolution Through the Centuries (3) [GE]** **F**

*Prerequisites:* one year of college chemistry and upper division standing. Evolution of chemistry as a science. Great chemists and their contributions to society. Chemical theories and discoveries which have changed the course of history.

**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.

**641 Advanced Topics in Chemistry (1-3)**

*Prerequisite:* upper division standing. Topics to be specified in Class Schedule. May be repeated for a total of 9 units as topics vary.

**693 Cooperative Education Program (6 or 12)**

*Prerequisite:* SCI 293 or 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.

**694 Cooperative Education in Chemistry (1)**

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.

**699 Special Study in Chemistry (1-3) F,S**

*Prerequisites:* consent of the department and the instructor. 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*

**800 Special Topics in Chemistry (1-3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**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.

**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).

**825 Theoretical Inorganic Chemistry (3)**

*Prerequisites:* classified graduate standing in chemistry and CHEM 425 and 850, or consent of instructor. Valence-bond, molecular orbital, and ligand field theories; magnetic and spectroscopic properties of transition metal complexes; thermodynamics; mechanisms of inorganic reactions in aqueous and non-aqueous media.

**831 Theoretical Organic Chemistry (3) A**

*Prerequisites:* classified graduate standing in chemistry, and CHEM 433 and 850 or equivalent, or consent of instructor. Advanced topics and problems on ionic and free radical mechanisms of organic reactions.

**832 Organic Synthesis (3) A**

*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.

**834 Organic Spectroscopic Methods (3) A**

*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.

**841 Enzymology (3) A**

*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.

**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.

**843 Membrane Biochemistry (3)**

*Prerequisites:* classified graduate standing in chemistry and CHEM 341, or consent of instructor. Structure and dynamics of biological membranes. Structure of membrane proteins, glycoproteins, and phospholipids and their biosynthesis and assembly into functional units.

**844 Bioinorganic Chemistry (3)**

*Prerequisites:* classified graduate standing in chemistry, and CHEM 340 or 349, and 425, or consent of instructor. Structure and functions of metalloproteins including electron transport and heme proteins. Spectroscopy and model systems to investigate the mechanism of their action.

**846 Biology and Chemistry of Signaling Pathways (3)**

*Prerequisite:* classified graduate status or consent of instructor. For course description, see BIOL 732.

**850 Valency and Spectroscopy (3) F**

*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.

**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.

**852 Statistical Mechanics: Molecular Relaxation (3)**

*Prerequisites:* CHEM 351, CHEM 353, or equivalent. Ensembles in statistical thermodynamics. Irreversible statistical mechanics and correlation functions. Brownian motion. Relaxation processes probed by dynamic light scattering, hydrodynamics, magnetic resonance, and transient electric birefringence.

**861 Advanced Glass Blowing (1) F,S**

*Prerequisite:* CHEM 361. Building of intricate and complicated pieces of glass apparatus and methods of working special glasses. CR/NC grading only.

**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.

**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.

**898 Master's Thesis (3) F,S**

*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*

**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.

**600 Child and Adolescent Development Internship Seminar (2)**

*Prerequisites:* completion of 30 units of the major. Must be taken concurrently with CAD 601. Application of theoretical concepts in cross-disciplinary communication and collaboration, leadership, interprofessional program development, and outcomes-based evaluations.

**601 Child and Adolescent Development Internship (2)**

*Prerequisites:* completion of 30 units of the major. 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.

**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.

**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.

**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.

**Undergraduate Courses****101 First Semester Chinese (5) [GE] F,S**

Understanding, speaking, reading, and writing modern Mandarin Chinese. Emphasis on the spoken language. Laboratory attendance required. (Page reference for the Department of Foreign Languages statement can be found in the Index.)

**102 Second Semester Chinese (5) [GE] F,S**

*Prerequisite:* CHIN 101 or equivalent. Continuation of First Semester Chinese. Laboratory attendance required.

**103 Third Semester Chinese (5) [GE] F,S**

*Prerequisite:* CHIN 102 or equivalent. Understanding, speaking, reading, and writing modern Mandarin Chinese at the intermediate level.

**251 Chinese Conversation (3) [GE]**

*Prerequisite:* CHIN 102 or equivalent or consent of instructor. Developing students' oral fluency in Mandarin: expanding vocabulary and correcting pronunciation.

**252 Chinese Characters (3) [GE]**

*Prerequisite:* CHIN 101 or equivalent or consent of instructor. Comprehending and producing Chinese characters commonly taught in elementary/intermediate levels. Developing skills in reading basic texts written in Chinese characters and in writing sentences with Chinese characters.

**311 Conversation and Reading (3) [GE]**

*Prerequisites:* CHIN 103 and 251 or 252 or consent of instructor. May be taken concurrently with CHIN 312. Developing proficiency in spoken Mandarin and written Chinese. Review of basic sentence patterns, vocabulary expansion, and acquisition of Chinese characters.

**312 Speech and Writing (3) [GE]**

*Prerequisites:* CHIN 103 and 251 or 252 or consent of instructor. May be taken concurrently with CHIN 311. Developing proficiency in spoken Mandarin and written Chinese. Vocabulary expansion, acquisition, and retention of Chinese characters; speaking and writing skills in interactive context.

**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).

**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.

**501 Introduction to Classical Chinese (3) [GE] F**

*Prerequisite:* CHIN 311 or 312 or consent of instructor. Stylistic and structural characteristics of classical Chinese; problems of interpretation.

**507 Traditional Chinese Culture (3) [GE]**

*Prerequisite:* CHIN 311 or 312 or consent of instructor. Highlights of the development of Chinese culture from antiquity to the 19th century. Selected readings, films, slides, and field trips.

**521 Twentieth Century Fiction (3) [GE] A**

*Prerequisite:* CHIN 311 or 312 or consent of instructor. The period after the 1919 Literary Revolution.

**525 Chinese Applied Linguistics (3) [GE]**

*Prerequisite:* CHIN 311 or 312 or consent of instructor. Application of modern descriptive linguistics to the analysis of phonological, morphological, and syntactic structures of Mandarin.

**580 Topics in Chinese Language and Literature (3) [GE]**

*Prerequisite:* CHIN 104 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**600 Topics in Chinese Language, Literature, and Culture in English (3)**

*Prerequisite:* ENG 416 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**601 Chinese Literature in Translation: The Poetic Tradition (3)**

*Prerequisite:* ENG 416 or consent of instructor. Major Chinese poets from antiquity to the 13th century.

Generic and stylistic evolutions of the literary tradition and the aesthetic achievements of individual poets. Taught in English.

**602 Chinese Literature in Translation: The Narrative Tradition (3)**

*Prerequisite:* ENG 416 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. Taught in English.

**699 Special Study (1-3) F,S**

*Prerequisites:* consent of department chair and instructor. Special topics in Chinese. Written projects requiring critical analysis and interpretation of linguistic or literary problems. Material adapted to individual needs and interests.

**Graduate Courses**

*Prerequisite for each graduate course in Chinese:* admission to Chinese program or consent of instructor.

**700 Seminar in Research Methods (3) F**

Problems and methods of research. Bibliography, criticism, and exercises in writing scholarly, critical papers on Chinese studies.

**821 Seminar in Modern Chinese Literature (3) S**

Reading, discussion of, and critical papers on full-length modern novels and plays.

**822 Seminar in Classical Chinese (3) S**

Classical philosophical, historical, and belletristic writings.

**825 Chinese Linguistics and Chinese as a Second Language (3)**

*Prerequisite:* CHIN 525 or equivalents. Seminar in the theoretical and practical issues in the study of the Chinese language.

**826 Seminar in Chinese Discourse (3)**

*Prerequisite:* CHIN 825. Theoretical issues in the linguistic variation across Chinese spoken and written discourse types such as casual conversation, personal letter, public lecture, and expository essay.

**880 Seminar: Special Topics (3) F**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**899 Special Study (1-3) F,S**

*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. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**CINEMA****Undergraduate Courses****102 Introduction to Contemporary Cinema (3) [GE]**

Studies in filmmaking since 1960. Dominant forms (Hollywood, Europe) and alternative modes (documentary, experimental). How films reflect and contribute to the values and culture of a society.

**200 Introduction to Cinema Studies (3) [GE] F**

Expressive properties and codes of cinema. Mainstream and alternative traditions of film: Hollywood, the art film, documentary, third cinema, the avant-garde. Basic critical methods and perspectives.

**202 Introduction to Filmmaking (3) F**

Operation, function, and creative use of the tools of motion picture production through equipment common to areas of cinematography, sound recording, editing, and post-production.

**300 Film History I (3)**

*Prerequisite: upper division standing.* Narrative, documentary, and experimental films (1895-1945), including such directors as Griffith, Murnau, Eisenstein, Pudovkin, Bunuel, Chaplin, Richter, Dreyer, Pabst, Lorentz, Deren, Cocteau.

**302 Film History II (3)**

*Prerequisite: upper division standing.* Narrative, documentary and experimental films since 1945, including such directors as de Sica, Rossellini, Clair, Bergman, Fellini, Brakhage, Kurosawa, Ray, Truffaut, Antonioni, Rouch, and Godard.

**305 Workshop in Film Production (3)**

*Prerequisite: consent of instructor.* Theory and practice of filmmaking for the non-professional who wishes to learn basic techniques of film production as applied to various film forms. Students must provide Super 8mm or video cameras and editing equipment. Extra fee required.

**308 Third World Cinema (3) [GE]**

*Prerequisite: upper division standing.* Critical perspectives on the cultural and social values of third world societies.

**310 Workshop in Film Production (3) F**

*Prerequisites: cinema major, 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.

**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.

**316 Film Production Laboratory (1)**

*Must be taken concurrently with CINE 310.* Experience in 16mm production, including use of camera, lighting, sound, and editing equipment.

**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.

**327 Anthropology and Film (4)**

*Prerequisite: upper division standing.* For course description, see ANTH 327.

**340 Critical Studies (3)**

*Prerequisite: upper division standing and completion of second year written composition (ENG 214 or equivalent) with a grade of B or passage of the JEPET or equivalent. Must be taken concurrently with CINE 341.* Critical approaches for analyzing cinema.

**341 Critical Studies Discussion Group (1)**

*Prerequisite: upper division standing. Must be taken concurrently with CINE 340.* Applied critical studies, including writing, discussion, and research about cinema.

**342 Documentary Film (3) [GE]**

*Prerequisite: upper division standing.* Development and shifting roles of non-fiction, live action film; significant work of such figures as Flaherty, Vertov, Riefenstahl, Grierson, Leacock-Pennebaker, and Marker.

**344 Film Genre (3)**

*Prerequisite: CINE 372. Topic to be specified in Class Schedule.* May be repeated for a total of 9 units as topics vary.

**350 Production Planning (3)**

*Prerequisites: upper division standing and consent of instructor.* Scripting, budgeting, and production planning for short films in both standard and experimental formats.

**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.

**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.

**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.

**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.

**364 Animation Pre-production (3)**

*Prerequisites: upper division standing and consent of instructor.* Scripting, storyboarding, soundtrack design and production. Visual planning and picture/sound relationship.

**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.

**370 Contemporary Animators (3)**

*Prerequisite: upper division standing or consent of instructor.* The rapidly evolving contemporary animation scene: guest artists working in all aspects of animation, from traditional cell techniques to computerized cinema.

**372 Film Theory (3)**

*Prerequisites: CINE 101, 300 or 302, 340.* Seminar in aesthetics with an analysis of theoretical and critical writing on film.

**373 Film and Society (3) [GE]**

*Prerequisite: upper division standing.* Major social issues through analysis of film texts: race, class, gender and sexual role, feminism, ideology, political movements, social and historical change.

**400 American Film (3)**

*Prerequisite: CINE 372. Topic to be specified in Class Schedule.* May be repeated for a total of 9 units as topics vary.

**401 National Cinema (3)**

*Prerequisite: CINE 372. Topic to be specified in Class Schedule.* May be repeated for a total of 9 units as topics vary.

**404 Gender and Film (3) [GE]**

*Prerequisites: upper division standing and consent of instructor. Topic to be specified in Class Schedule.* May be repeated for a total of 9 units as topics vary.

**405 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.

**406 Ethnicity and Film (3)**

*Prerequisite: upper division standing and consent of instructor. Topic to be specified in Class Schedule.* May be repeated for a total of 9 units as topics vary.

**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.

**442 Producing and Financing Films (3)**

*Prerequisites: upper division standing and consent of instructor.* Economics of production, budgeting, breakdowns, financing and contracts, distribution and exhibition, censorship, copyright, libel and slander, law of privacy, releases.

**455 Screenwriting II (3)**

*Prerequisite: CINE 354 or 355 or equivalent.* Advanced practice in conceptualizing and writing scripts.

**465 Contemporary Animation (3)**

*Prerequisites: upper division standing and consent of instructor.* International animation from 1970 to present. Short films created by independent artists in a wide variety of classic art media and new technologies. Social content, historical significance, and artistic technique.

**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.

**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.

**502 Avant Garde Cinema (3)****F**

*Prerequisite:* CINE 372. Radical experimentalism in film emphasizing social aesthetic modes (e.g., Dada, structuralist-materialist cinema), periods, and artists.

**506 Cinematheque Management (3)**

*Prerequisites:* upper division standing and consent of instructor. 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.

**507 Cinema Curating and Exhibition (1)**

*Prerequisites:* upper division standing and consent of instructor. Practical issues of organizing the exhibition of film and video work involving actual screenings and events. May be repeated once.

**508 Film Authors (3)**

*Prerequisite:* CINE 372. Topic to be specified in Class Schedule. May be repeated for a total of 9 units as topics vary.

**509 Shadow Crew (1)**

*Prerequisites:* CINE 310 and consent of instructor. Practical experience in sound stage practices related to gripping, gaffing, and set construction in support of CINE 510. For those intending to enroll in CINE 510. May be repeated for a total of 2 units.

**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.

**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.

**513 Distribution for the Independent Filmmaker (1)**

*Prerequisites:* CINE 310 or CINE 710 and consent of instructor. Distribution, exhibition, and finance for independent filmmakers. Economics of production, national and international markets and audiences. Censorship, copyright, releases, translations, study guides, and new formats. May be repeated for a total of 3 units.

**518 Titles and Graphics Workshop (1)**

*Prerequisites:* upper division standing and consent of instructor. Laboratory in titling and graphics for film. Techniques of animation and precision camera work. Extra fee required.

**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.

**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 track utilizing studio recordings consoles, reverbation, limiters, graphic equalizers. Evaluation of sound/picture relationships. Extra fee required.

**521 Optical Printing Workshop (1)**

*Prerequisites:* CINE 310 or CINE 710 or equivalent and consent of instructor. Workshop in optical printing for motion pictures. May be repeated for a total of 3 units.

**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.

**523 Exploration in Interactive Cinema (3)**

*Prerequisites:* CINE 423 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.

**524 Digital Sound for Film (3)**

*Prerequisites:* CINE 310 and consent of instructor. Design, production, and analysis of sound for cinema using computer-based technologies.

**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.

**526 Optical Printing (3)**

*Prerequisites:* CINE 310 or CINE 710 or equivalent and consent of instructor. Optical printing for motion pictures.

**529 Stagecraft and Art Direction for Film (3)**

*Prerequisites:* CINE 310 or CINE 710 or equivalent and consent of instructor. Filmmaking workshop: skills and aesthetics of art direction for cinema. Extra fee required.

**555 Writing and Performing in Film and Theatre (3)**

*Prerequisite:* consent of instructor. Projects in writing and performance for cinema and theatre. Study of interrelationships of art forms. Creation and in-class presentation of the written script. (Also offered as TH A 558. May not be repeated under alternate prefix.)

**560 Alternative Representation in Documentary Production (3)**

*Prerequisites:* upper division standing and consent of instructor. Hands-on filmmaking exercises combined with historical, theoretical, and stylistic considerations of cultural representation employed by documentary filmmakers. (Also offered as ETHS/WOMS 560. May not be repeated under alternate prefix.)

**561 Special Effects and Graphics Workshop (3)**

*Prerequisites:* CINE 361 or 423 and consent of instructor. Cinema projects employing a variety of visual effects. Emphasis on aesthetic integration of effects into a live action or animation project. Priority enrollment for cinema majors.

**595 Visual Anthropology I (6)**

*Prerequisites:* CINE 305 or 310 and consent of instructor. For course description, see ANTH 595. May not be repeated under alternate prefix. Classwork, 3 units; fieldwork, 3 units.

**596 Visual Anthropology II (6)**

*Prerequisites:* CINE/ANTH 595 and consent of instructor. For course description, see ANTH 596. Classwork, 3 units; activity, 3 units. (May not be repeated under alternate prefix.)

**597 Digital Editing for Visual Anthropology (1)**

*Prerequisites:* cinema or anthropology major, upper division standing, and consent of instructor. Must be taken concurrently with CINE 595 and CINE 596. Digital editing with emphasis on conceptualization and aesthetics of editing. Production of ethnographic media in still photography audio, film, and video. May be repeated once. (Also offered as ANTH 597.)

**610 Senior Critical Studies Seminar (3)****F**

*Prerequisites:* minimum GPA of B+ (3.3) in 24 units of cinema studies courses, including CINE 372, and consent of instructor. Original research, seminar reports, close analysis. Refining critical skills, developing project outline for work to be produced within a independent studies format in the following semester.

**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.

**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.

**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.

**623 Exploration in Cinema as an On-Line Medium (3)**

*Prerequisites:* CINE 423 and consent of instructor. Conceptualization, programming, production, and presentation of cinema on the Internet, using digi-

tal tools and processes. May be repeated for a total of 6 units.

#### 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.

#### 625 Post Production Workshop (3)

*Prerequisites:* upper division standing 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.

#### 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.

#### 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.

#### 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.

#### 690 Production Practice (3)

*Prerequisites:* upper division standing and consent of supervising instructor. Individual projects in film production pursued under supervision. May be repeated for a total of 9 units.

#### 692 Internship (3)

*Prerequisites:* upper division standing and consent of supervising instructor. Field experience in cinema production. May be repeated once with instructor's consent. CR/NC grading only.

#### 695 Independent Critical Studies (3)

*Prerequisites:* CINE 610 and consent of supervising faculty. 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.

#### 699 Independent Study (1)

*Prerequisites:* upper division standing and consent of supervising instructor. Selected projects in cinema studies or production. May be repeated for a total of 3 units.

#### Graduate Courses

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.)

#### 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.

#### 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.

#### 721 Cross-cultural Representation (3)

*Prerequisite:* admission to the M.A. or M.F.A. in Cinema. Issues and concepts related to non-fiction, documentary, and ethnographic film in a cross-cultural context. A hypothesis film project proposal forms the major written assignments.

#### 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.

#### 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.

#### 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.

#### 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.

#### 745 Seminar in Film History and Criticism (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.

#### 750 Graduate Colloquium (3)

*Prerequisites:* second year standing and consent of instructor. Current research and creative issues. Presentation of work-in-progress, critiques, and discussion. May be repeated for a total of 6 units.

#### 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.

#### 761 Writing and 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.

#### 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.

#### 763 Cinema Laboratory II and Avid Editing (3)

*Prerequisites:* CINE 724, 761, 762, and advancement to second year M.F.A. Must be taken concurrently with CINE 726 and CINE 770. Non-linear editing with a focus on techniques and aesthetics of film editing. Students learn Avid Xpress and work on short creative projects in editing.

#### 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.

**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.

**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.

**825 Seminar in Film Production (3)**

*Prerequisites:* CINE 712 and consent of instructor. Topic to be specified in Class Schedule. May be repeated for a total of 6 units as topics vary.

**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.

**890 Graduate Program Services (3)**

*Prerequisites:* CINE 894 or 898 with grade of RP and consent of graduate adviser. Supervised direction of independent creative work and/or research with direct application to the creative work project or master's thesis. May be repeated 9 times, but may not be used for the Graduate Approved Program. CR/NC grading only.

**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.

**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.

**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.

**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***250 Archaeology of the Ancient World (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Archaeology of the ancient world. Artistic and cultural achieve-

ments of Egypt, the Ancient Near East, Greece and Rome, and interaction of the art with society.

**450 Archaeology of Istanbul (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. The city of Istanbul, including its phases as Byzantium and Constantinople. Material culture of Istanbul against a background of historical, political, and religious aspects and the interaction between ancient and modern, Oriental and European, Christian and Islamic cultures.

**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.

**502 Ancient Egyptian Language and Literature (3) [GE]**

Understanding, reading, and writing of the ancient Egyptian language in its hieroglyphic script. Prose tales, poetry, religious, and scientific documents. May be repeated.

**507-508 Ancient Roman Civilization (3 each)**

*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.

**515-516 Ancient Greek Civilization (3 each)**

*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.

**524 The Ages of Homer (3)**

*Prerequisite:* ENG 214 or equivalent. 1500 to 1100 BCE marked evolution of Greek culture, recorded in archaeological record and epic poems of Homer. Concentrates on physical remains of period; e.g., Troy, Mycenae. Paired with CLAR 824. Students who have completed CLAR 524 may not take CLAR 824 for credit.

**525 Monuments of Athens (3)**

*Prerequisite:* ENG 214 or equivalent. Architectural and cultural development of Athens from Bronze Age to Modern Era. Major monuments of Athens as currently preserved. Architectural significance and relation to cultural developments. Paired with CLAR 825. Students who have completed CLAR 525 may not take CLAR 825 for credit.

**526 Rome in the East (3)**

*Prerequisite:* ENG 214 or equivalent. Cultural influence of Rome reflected in archaeological remains of eastern Mediterranean: Greece, Egypt, Anatolia. Students who have completed CLAR 526 may not take CLAR 826 for credit.

**530 Roman Britain (3)**

*Prerequisite:* ENG 214 or equivalent. Historical, artistic, cultural, economic development of Roman Brit-

ain: Celtic background, Roman conquest, intermixing of Celtic and Roman cultures. All students expected to use computers and have Internet access. Paired with CLAR 830. Students who have completed CLAR 530 may not take CLAR 830 for credit.

**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.

**540 Civilizations of Ancient Anatolia (3)**

*Prerequisite:* ENG 214 or equivalent. Archaeological and literary exploration of western Asia Minor, including the kingdoms of Midas (Phrygia) and Croesus (Lydia); famous cities of the Ionian Greeks: Ephesos and Miletos. Paired with CLAR 840. Students who have completed CLAR 540 may not take CLAR 840 for credit.

**555 Cities of Syria (3)**

*Prerequisite:* ENG 214 or equivalent. Archaeological and literary investigation of the development of urbanism in Syria from 4th millennium BCE to end of 3rd century CE: Ebla, Mari, Damascus, Aleppo, Dura-Europas, and Palmyra. Paired with CLAR 855. Students who have completed CLAR 555 may not take CLAR 855 for credit.

**580 Linear B and the Mycenaeans (3)**

*Prerequisite:* ENG 214 or equivalent. Study of Linear B script (1450-1100 BCE), examination of tablets discovered in palaces. Linear B documents and evidence used to reconstruct operations of Mycenaean palace. Paired with CLAR 880. Students who have completed CLAR 580 may not take CLAR 880 for credit.

**585 Archaeology of Death (3)**

*Prerequisite:* ENG 214 or equivalent. Cemeteries, funerary architecture, grave furnishings, inscriptions, and literary texts; beliefs about death and the afterlife in ancient Mediterranean and Near Eastern cultures. Paired with CLAR 885. Students who have completed CLAR 585 may not take CLAR 885 for credit.

**590 Myth in Ancient Art (3)**

*Prerequisite:* ENG 214 or equivalent. Myths depicted in art of ancient Greece and Rome. Use of art in illuminating literary myths and reflecting changes in myths over time. Paired with CLAR 890. Students who have completed CLAR 590 may not take CLAR 890 for credit.

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

*Prerequisite:* consent of instructor. Supervised study of a special archaeological problem to be selected by the student.

*Graduate Courses***730 Museum Exhibit Design and Curation (3)**

For course description, see M S 730. May be repeated for a total of 6 units.

**820 Seminar in Classical Archaeology--Cultures and Civilizations (3)**

*Prerequisite: graduate status or consent of instructor. Topic to be specified in Class Schedule. May be repeated when different areas or periods are studied.*

**824 The Ages of Homer (3)**

*Prerequisite: graduate status or consent of instructor. For course description, see CLAR 524. Paired with CLAR 524. Students who have completed CLAR 824 may not take CLAR 524 for credit.*

**825 Monuments of Athens (3)**

*Prerequisite: ENG 214 or equivalent. For course description, see CLAR 525. Paired with CLAR 525. Students who have completed CLAR 825 may not take CLAR 525 for credit.*

**826 Rome in the East (3)**

*Prerequisite: graduate status or consent of instructor. For course description, see CLAR 526. Paired with CLAR 526. Students who have completed CLAR 826 may not take CLAR 526 for credit.*

**830 Roman Britain (3)**

*Prerequisite: graduate status or consent of instructor. For course description, see CLAR 530. Paired with CLAR 530. Students who have taken CLAR 830 may not take CLAR 530 for credit.*

**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.*

**840 Civilizations of Ancient Anatolia (3)**

*Prerequisite: graduate status or consent of instructor. For course description, see CLAR 540. Paired with CLAR 540. Students who have completed CLAR 840 may not take CLAR 540 for credit.*

**855 Cities of Syria (3)**

*Prerequisite: graduate status or consent of instructor. For course description, see CLAR 555. Paired with CLAR 555. Students who have completed CLAR 855 may not take CLAR 555 for credit.*

**885 Archaeology of Death (3)**

*Prerequisite: reading knowledge of one ancient language. For course description, see CLAR 585. Paired with CLAR 585. Students who have completed CLAR 885 may not take CLAR 585 for credit.*

**890 Myth in Ancient Art (3)**

*Prerequisite: ENG 214 or equivalent. For course description, see CLAR 590. Paired with CLAR 590. Students who have completed CLAR 890 may not take CLAR 590 for credit.*

**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***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.*

**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.*

**380 Myth, History, and Movies (3)**

*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.*

**390 Greek and Latin Roots in the English Language: A Self-paced Web-based Course (3)**

*Prerequisite: ENG 214 or equivalent. Self-paced Internet-based course. Principles of etymological analysis; productive Greek and Latin roots in English language.*

**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. (Also offered as HUM 401. May not be repeated under alternate prefix.)*

**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. (Also offered as HUM 402. May not be repeated under alternate prefix.)*

**416 Bible and Ethics: The Moral of the Story (3) [GE]**

*Prerequisite: ENG 214. For course description, see JS 516. (Also offered as PHIL 551/CWL 416. May not be repeated under an alternate prefix.)*

**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.*

**510 The Byzantine Empire (3)**

*Prerequisite: ENG 214 or equivalent. For course description, see MGS 510. Also offered as HIST 326. May not be repeated under alternate prefix.*

**520 Roman Law (3)**

*Prerequisite: ENG 214 or equivalent. Roman government, judicial system, law of persons, property law, delict, law of obligations, criminal law, law and non-Roman ethnic groups, Roman law in the 20th century. Paired with CLAS 820. Students who have completed CLAS 820 may not take CLAS 520 for credit.*

**530 Gender and Sexuality in Ancient Greece and Rome (3)**

*Prerequisite: ENG 214 or equivalent. Role of gender and sexuality in the ancient world. Areas of inquiry: women's bodies and social roles; homosexuality; and the socialization of adolescents into adult gender/sex roles. (Also offered as HM SX 530.)*

**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 and CLAS 890 may be repeated for a total of 6 units. CR/NC grading only.*

**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.*

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

*Prerequisites: 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***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).*

**720 Seminar in Classical Languages and Literature (3)**

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

**820 Roman Law (3)**

*Prerequisite: ENG 214 or equivalent. For course description, see CLAS 520. Paired with CLAS 520. Students who have completed CLAS 820 may not take CLAS 520 for credit.*

**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 and 890 may be repeated for a total of 6 units. CR/NC grading only.*

**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.*

**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.

**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.

**COMMUNICATIVE DISORDERS***Undergraduate Courses***300 Human Communicative Development and Disorders (3) [GE] F,S**

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.

**651 Anatomy and Physiology of the Speech Mechanism (3) F**

*Prerequisites:* communicative disorders major, C D 655 or concurrent enrollment. Normal structures and functioning of respiration, phonation, resonance, and articulation.

**652 Audiology (3) F**

*Prerequisite:* communicative disorders major or consent of instructor. Structure and function of the ear; sound related to hearing mechanism; causes, implications, and techniques of determination of hearing impairment.

**653 Aural Rehabilitation (3) S**

*Prerequisite:* C D 652. Psychological, educational, and sociological implications of hearing loss. Aural rehabilitation: speech reading, auditory training, amplification, and speech conservation and/or improvement.

**654 Audiometry (3) S**

*Prerequisite:* C D 652. Pure tone and bone conduction hearing testing. Masking, immittance testing, electrophysiological testing, pediatric audiology, speech audiometry and public school hearing/conversation programs.

**655 Dynamics of Communication Development (3) F**

*Prerequisite:* communicative disorders major or consent of instructor. Psychosocial and sociological determinants of communication. Theories of language development; understanding the language acquisition process of verbal and non-verbal communication.

**656 Diagnosis of Communicative Disorders (3) F**

*Prerequisites:* C D 655 and 658. Diagnosis of communicative disorders. Observation, language sample analysis, and distinctive feature analysis.

**658 Communication Development and Disorders (3) F**

*Prerequisites:* C D 655; communicative disorders major or consent of instructor. Language acquisition, disorders and their causes in school age children. Application of diagnostic and intervention techniques.

**659 Articulatory and Phonological Disorders (3)**

*Prerequisites:* SPCH 410, C D 651 or equivalent. Disordered articulation; accent/dialectal differences; normal phonological processes; phonological disorders and distinctive features. Practicum for diagnosis and therapy for articulation, phonological, and accent problems.

**660 Communicative Disorders (3) S**

*Prerequisites:* C D 651; communicative disorders major or consent of instructor. Voice disorders, adult neurogenic disorders, stuttering, cerebral palsy, and cranio-facial anomalies. Etiology, pathology, diagnosis, and intervention techniques.

**661 Neurolinguistics (3) S**

*Prerequisites:* C D 658, 651, 652, and 655. Cortical and sub-cortical components of language processing; current research on the central nervous system and its application to speech, language, and hearing.

**663 Clinical Instrumentation in Communicative Disorders (3)**

Instrumentation used in communicative disorders; microcomputer use in speech/language pathology and audiology. Augmentative communication devices used by clients with speech/language disorders. Acoustics and speech signal analysis in therapy.

**667 Sensory Systems and Aging (3) [GE]**

*Prerequisites:* upper division standing and consent of instructor. Sensory systems, age related changes, their consequences, and treatment, medical and non-medical. Anticipated changes in hearing, vision, touch, smell, taste, and awareness of movement with aging. Rarer pathological alterations in these senses.

**668 Clinical Observation (3)**

*Prerequisites:* C D 655 and 658. Clinical methodology, analysis of videotaped examples of therapy, and direct guided clinical observations.

**680 Practicum in Communication Therapy (2) F,S**

*Concurrent enrollment in C D 611, 612, or 613 required.* 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.

**699 Special Study in Communicative Disorders (1-3) F,S**

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***700 Human Auditory Systems (3)**

Anatomy and physiology of the auditory system, auditory pathologies, bone conduction, and masking.

**701 Language Differences and Disorders in Children (3) F,S**

*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.

**702 Seminar: Advanced Audiology I (2)**

*Prerequisites:* C D 652, 654, or consent of instructor. Development of auditory systems; causes, consequences, and techniques of assessing hearing impairment in infants and children; audiologist's role in making recommendations for children and in interaction with parents and professionals.

**703 Seminar: Advanced Audiology II (3)**

*Prerequisites:* admission to C D program; C D 652, 654, or consent of instructor. Acoustics and psychoacoustics. Calibration of equipment. Test environment. Electrophysiological measurements.

**704 Seminar: Advanced Audiology III (3)**

*Prerequisites:* admission to C D program; C D 702 and 703. Tests for site of lesion, for central auditory dysfunction, and for functional auditory disorders. Advanced immittance measurements.

**705 Seminar in Problems of Stuttering (3) F**

*Prerequisite:* C D 660 or consent of instructor. The causes of stuttering; current theories and therapies relative to stuttering in children and adults.

**706 Counseling in Communicative Disorders (3) S**

*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.

**707 Advanced Seminar in Language Disorders in Children (3)**

*Prerequisites:* C D 701 or consent of instructor; admission to C D program. Assessment, intervention, and organizational procedures for use with classes that include children of various ages with language disorders.

**708 Neurogenic Disorders of Language (3) F**

*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.

**709 Seminar in Voice Disorders (3) S**

*Prerequisite:* admission to program. Habilitation and rehabilitation of children and adults with organic and non-organic voice disorders.



**710 Seminar in Neurogenic Disorders of Speech (3)**

*Prerequisite:* admission to C D program or consent of instructor. Assessment and rehabilitation of adults and children who have neurogenic disorders: apraxia, the dysarthrias, and dysphagia.

**711 Seminar in Therapy for Functional Communicative Disorders (1) F,S**

*Prerequisites:* admission to C D program and C D 650. Must be taken concurrently with C D 880. Communication therapy with functional speech and language disorders: articulation, delayed speech, and stuttering. May be repeated for a total of 3 units.

**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.

**713 Seminar in Therapy for Organic Communicative Disorders (1) F,S**

*Prerequisites:* admission to C D program and C D 655. Must be taken concurrently with C D 880. Therapy with speech and language disorders resulting from central nervous system and/or other organic dysfunction. May be repeated for a total of 3 units.

**715 Clinical/Rehabilitative Experience in the School (5 or 8) F,S**

*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.

**716 Student Teaching: Severe Language Disabilities (4) F,S**

*Prerequisites:* C D 707 and consent of adviser. Student teaching children with severe language handicaps. Open only to credential candidates who have completed prerequisites.

**725 Student Teaching Workshop: Communication Disabilities (1) F,S**

*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.

**754 Seminar: Advanced Audiology IV (3)**

*Prerequisites:* admission to C D program; C D 652, 653, or consent of instructor. Theories and procedures in constructing and implementing models for aural rehabilitative or rehabilitative programs. Theories of tinnitus management; audiological procedures for an industrial setting.

**756 Advanced Diagnosis of Communicative Disabilities (3) F**

*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.

**757 Speech Audiometry and Hearing Aids (3)**

*Prerequisites:* C D 652, 654, or consent of instructor. Theory, procedures, and interpretation of speech audiometric measurements; characteristics, measurements, fitting, and dispensing of amplification systems for individuals with auditory disorders.

**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.

**851 Clinical Applications of Computers in Communicative Disorders (3)**

*Prerequisite:* graduate status in C D. Computer technology for speech/language pathologists. Application of technological tools as they relate to assessment and treatment in communicative disorders.

**880 Advanced Communication Therapy (2) F,S**

*Prerequisites:* C D 668 or equivalent. Supervised clinical methods and practice in communication rehabilitation. May be repeated for a total of 10 units.

**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.

**882 Internship in Communicative Disorders II (3-6) F,S**

*Prerequisites:* consent of adviser. Practicum in hospital or agency settings.

**883 Practicum in Hearing Diagnostics (2) F,S**

*Prerequisites:* C D 657 and consent of adviser. Clinical diagnosis of hearing disorders. May be repeated for a total of 4 units.

**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.

**899 Special Study (1-3) F,S**

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***214 Second Year Written Composition: World Literature (3) [GE]**

*Prerequisite:* ENG 114. Selected focus on a major author, genre, or theme germane to 20th century experience. Critical understanding of the novels, plays, and poems selected. Training in expository and analytic writing. Must be taken after student has completed 24 units and before completing 60 units. ABC/NC grading. (Formerly WCL 214.)

**230 Introduction to 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. (Formerly WCL 230.)

**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. (Formerly WCL 250.)

**260 Myths of the World (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Different mythologies, their interpretation and significance to world literature. (Formerly WCL 260.)

**400 Approaches to Comparative Literature (3)**

*Prerequisite:* ENG 214. Gateway to undergraduate study in comparative literature. History of comparing literature, contemporary methods, materials for comparative literary studies, literary and critical theory and practice. (Formerly WCL 400.)

**410 The Bible as Literature (3)**

*Prerequisite:* ENG 214 or equivalent. The composition, translation, and content of the Bible as a whole, with attention given to various types of literature found herein and to the literary qualities of those portions that have contributed to our literary heritage. (Formerly WCL 410.)

**415 The Literary Use of Legend (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary. (Formerly WCL 415.)

**416 Bible and Ethics: The Moral of the Story (3) [GE]**

*Prerequisite:* ENG 214. For course description, see JS 516. (Also offered as CLAS 416/PHIL 551. May not be repeated under an alternate prefix.) (Formerly WCL 416.)

**420 Studies in Comparative Literature (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary. (Formerly WCL 420.)

**421 Celtic Literature (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Literature of the Celtic peoples from early mythology to modern literature: the continuity of ideas, philosophies, beliefs, and attitudes over a 3,000 year time span. (Formerly WCL 421.)

**425 Individual Authors (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in Class Schedule. May be repeated when different authors are studied. (Formerly WCL 425.)

**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. (Formerly WCL 430.)

**437 Holocaust and Literature (3) [GE]**

*Prerequisite:* ENG 214. For course description, see JS 437. (Also offered as ENG 533. May not be repeated under alternate prefix.) (Formerly WCL 437.)

**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. (Formerly WCL 440.)

**445 National Literatures (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in the Class Schedule. May be repeated as topics vary. (Formerly WCL 445.)

**450 Contemporary Arabic and Arab American Literature (3)**

*Prerequisite:* upper division standing or consent of instructor. For course description, see ETHS 450. (Also offered as ARAB 450. May not be repeated under alternate prefix.)

**455 Translation Workshop (3)**

*Prerequisites:* ENG 214 or equivalent and reading knowledge of one foreign language. Theory and practice of literary translation; nature and methods of literary translation and practice of this art. Paired with CWL 755. Students who have completed CWL 455 may not take CWL 755 for credit. (Formerly WCL 455.)

**495 Short Fiction (3)**

*Prerequisite:* ENG 214 or equivalent. Topic to be specified in the Class Schedule. May be repeated as topics vary. (Formerly WCL 495.)

**605 Women's Voices in Russian Literature in English (3)**

*Prerequisite:* ENG 416 or consent of instructor. For course description, see RUSS 605. (May not be repeated under alternate prefix.) (Formerly WCL 605.)

**636 Greek and Roman Myth and Modern Literature (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. For course description, see ENG 636. (May not be repeated under alternate prefix.) (Formerly WCL 636.)

**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.

**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.

**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. (Formerly WCL 699.)

**Graduate Courses****755 Translation Workshop (3)**

*Prerequisites:* ENG 214 or equivalent and reading knowledge of one foreign language. For course description, see CWL 455. Paired with CWL 455. Students who have completed CWL 755 may not take CWL 455 for credit. (Formerly WCL 755.)

**800 Introduction to Graduate Study in Comparative Literature (3)**

*Prerequisite:* classified graduate status in comparative literature or consent of instructor. Methodology and problems of comparative literature; theory of literature as it relates to comparative studies. (Formerly WCL 800.)

**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. (Formerly WCL 815.)

**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. (Formerly WCL 820.)

**825 Advanced Study in Comparative Literature (3)**

*Prerequisite:* CWL 800. Reading and writing in context of literary canon, synthesizing prior knowledge about theory and practice of comparative literature, addressing issues of canon formation. Development of scholarly and professional skills. (Formerly WCL 825.)

**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.

**896 Directed Reading in Comparative Literature (3)**

*Prerequisites:* approved GAP 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. (Formerly WCL 896.)

**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. (Formerly WCL 898.)

**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). (Formerly WCL 899.)

**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****201 Introduction to Computer Programming for Non-majors (3) F,S**

*Prerequisite:* grade of C or better in General Education quantitative reasoning requirement. Algorithms and basic programming concepts. May not be taken by computer science majors.

**210 Introduction to Computer Programming (3) F,S**

*Prerequisites:* a grade of C or better in MATH 226. Computer science majors and minors must take CSC 212 concurrently or prior to CSC 210. 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.

**212 Introduction to Software Development in UNIX (2)**

*Prerequisite:* consent of instructor. Laboratory activities to supplement and amplify the material covered in CSC 210. Introduction to UNIX and program development in the UNIX environment. Proper and improper use of computer networks. CR/NC grading only.

**213 Fundamentals of Computer Science (3)**

*Prerequisites:* grade of C or better in MATH 227 and CSC 210, passing grade in CSC 212. Transfer students may take CSC 212 concurrently. Fundamental algorithm concepts, computer organization, data structures and abstractions, programming methodologies, distributed and parallel computation, areas of application; artificial intelligence and database systems.

**271 Introduction to Oracle: SQL and PL/SQL Using Procedure Builder (3)**

*Prerequisites:* CSC 210 or ISYS 265, with grade C or better. Oracle tools and methodologies to fulfill real-world business information requirements. Design and creation of database structures to store, retrieve, update, and display data in relational databases. May not be used to satisfy major elective requirements. (Also offered as ENGR/ISYS 271. May not be repeated under alternate prefix.)

**305 Social and Ethical Implications of Computing (1)**

*Prerequisite:* CSC 210. Privacy and security. Censorship and freedom of Internet use. Social issues related to cryptography and the use of Internet. Ethical issues in software development. Legal issues of intellectual property, copyright, public domain software, shareware, patents, licenses, trademarks, and trade secrets.

**310 Assembly Language Programming and Introduction to Computer Organization (3) F,S**

*Prerequisite:* ENGR 356 with grade of C or better. Data representation. Assembly language programming. Subroutine linkage. Machine language encoding. Interrupt/exception handling. CPU datapath and control design.

**313 Data Structures (3)**

*Prerequisites:* CSC 301 and 330 with grades of C or better. Linear and non-linear data structures; linked lists, stacks, queues, trees, tables, and graphs. Dynamic memory allocation and deallocation. Design of algorithms and programs for creating and processing data structures.

**330 Discrete Mathematical Structures for Computer Science (3) F,S**

*Prerequisites:* CSC 210 and MATH 227 with grades of C or better. Review of set algebra, relations, and functions. Permutations. Propositional logic. Proof techniques. Graph theory. Infinite sets. Applications to computer science.

**413 Software Development (3)**

*Prerequisites:* CSC 313 with grade of C or better. 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.

**415 Operating System Principles (3) F,S**

*Prerequisites:* PHYS 230, PHYS 232, CSC 310, CSC 313, and MATH 324 with grades of C or better. Operating system concepts: concurrent processes, basic synchronization techniques, deadlock, memory management, file systems, security, networks, distributed processing.

**510 Analysis of Algorithms I (3) F,S**

*Prerequisites:* CSC 313, MATH 324, and MATH 325 with grades of C or better. Notions of the design of algorithms and the underlying data structures. Measures of complexity. Structure, complexity, and efficiency of algorithms. Numerical and non-numerical computations.

**520 Theory of Computing (3) F,S**

*Prerequisites:* CSC 213, MATH 325, and MATH 330 or CSC 330 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. Computable and recursive functions, universal turing machines. Unsolvable problems.

**600 Programming Language Design (3) F,S**

*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.

**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.

**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.

**630 Computer Graphics Systems Design (3) F,S**

*Prerequisites:* CSC 313 and MATH 325 with grades of C or better. Graphics display hardware architecture. Structure of device independent graphics systems. Two- and three-dimensional viewing pipelines, transformations, and projections. Hidden line and surface removal algorithms. Raster graphics techniques and color space models. Extra fee required.

**635 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.

**640 Software Engineering (3)**

*Prerequisite:* CSC 413 or consent of instructor. Stages of software development, management issues, automated software development tools, programming methodologies, programming tools. Extra fee required.

**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.

**642 Human Computer Interaction (3)**

*Prerequisite:* CSC 413 with grade of C or better. The design, implementation, and evaluation of human/computer interfaces. Topics include interface devices, interface metaphors, interaction styles, User Centered Design, testing, and quality assessment. Paired with CSC 842. Students who have completed CSC 642 may not take CSC 842 for credit.

**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.

**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.

**650 Secure Networked Systems (3)**

*Prerequisite:* CSC 415 or consent of instructor. Analysis, planning, construction, and operation of secure networked computing systems: security for environments connected to the Internet, encryption, assets, risk, authentication, trust, controls, defense, routers, firewalls, law, ethics.

**651 System Administration (3)**

*Prerequisites:* CSC 413 and 415 (CSC 415 may be taken concurrently). User administration. Operating system installation, tuning, and control. Network administration. Security management. Performance tuning and management.

**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.

**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.

**667 Internet Application Design and Development (3)**

*Prerequisite:* CSC 415 or consent of instructor. Issues in application design specific to Internet hardware, software, and users. HTML integration, client server, and database applications.

**668 Object-oriented Programming (3)**

*Prerequisites:* CSC 413 with grade of C or better, senior or graduate standing, or consent of instructor. Object-oriented programming paradigm. Notion of an "object-world" with programming abstractions such as iteration, classes, polymorphic functions, and inheritance. Notion of reusable software components. Paired with CSC 868. Students who have completed CSC 668 may not take CSC 868 for credit. Extra fee required.

**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.

### 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.

### 690 Undergraduate Seminar (3) S

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary. Extra fee required.

### 693 Cooperative Education Program (6 or 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.

### 694 Cooperative Education: Computer Science (1-3) F,S

*Prerequisite:* consent of instructor. Projects undertaken in a business, government, or industrial position of at least one semester's duration. CR/NC grading only.

### 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.

### 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.

### 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

### 720 Advanced Operating Systems (3) S

*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.

### 730 Advanced Database Systems (3) F

*Prerequisites:* CSC 413 and CSC 675 with grades of C or better. Standard SQL, query optimization, concurrency control, crash recovery, authorization and in-

tegrity enforcement; object-oriented, extensible, deductive, and/or distributed database systems.

### 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.

### 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.

### 810 Analysis of Algorithms II (3) S

*Prerequisite:* satisfaction of Written English Proficiency Level I or concurrent enrollment in SCI 614; grade of B or better in CSC 510 or consent of instructor. Theory of NP Completeness.

### 815 Graph Theory Algorithms (3)

*Prerequisite:* graduate status or consent of instructor. Selected topics from graph theory, matching theory, flows in networks and game playing programs. Emphasis is on algorithms. Correctness proofs and computational efficiency discussed. On game playing programs the emphasis is on the alpha-beta pruning algorithms and heuristics, and is illustrated by a completed game.

### 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.

### 830 Advanced Computer Graphics (3)

*Prerequisite:* CSC 630 or consent of instructor. Raster graphics principles and scanning algorithms, pixel fill algorithms, anti-aliasing, clipping, hidden line, and surface display, rendering of surfaces and fractal techniques.

### 840 Software Metrics (3)

*Prerequisite:* CSC 640 or consent of instructor. Software measurement and experimentation. Data collection techniques and tools. Software engineering measurements. Quality attributes and standards. Internal and external product attributes. Software reliability. System evaluation methods.

### 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.

### 842 Human Computer Interaction (3)

*Prerequisite:* CSC 413 with grade of C or better or consent of instructor. For course description, see CSC 642. Paired with CSC 642. Students who have completed CSC 842 may not take CSC 642 for credit.

### 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).

### 850 Compiler Design (3)

*Prerequisites:* B or better in CSC 413 and consent of instructor. Design and implementation of compilers including lexical scanners, top down and bottom up parsers, precedence grammars, symbol table manipulation, LR (k) grammars, semantics routines, and code generators.

### 856 Advanced Computer Architecture (3) F

*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.

### 865 Artificial Intelligence (3)

*Prerequisite:* CSC 413 with grade of C or better. For course description, see CSC 665. Paired with CSC 665. Students who have completed CSC 665 may not take CSC 865 for credit.

### 868 Object-oriented Programming (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.

### 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.

### 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.

### 878 Advanced Object Oriented Programming (3)

*Prerequisite:* CSC 668/868 or consent of instructor. Current topics in object-oriented analysis and design, design patterns and Java environments (JDK, SWING, etc.). Development of applications applying the principles. Design reviews will be conducted to provide critical analyses in a group setting.

### 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.

### 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.

**895 Applied Research Project (3)**

*Prerequisites:* CSC 720, 810, 856, plus two other courses as approved by graduate adviser. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**897 Research (3-6) F,S**

*Prerequisite:* consent of Computer Science Department. Independent and original investigation under supervision of a faculty member.

**898 Master's Thesis (3) F,S**

*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.

**899 Special Study (1-3) F,S**

*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***161 Clothing Analysis (3) F**

Style features, construction techniques, and quality of ready-to-wear apparel in different price lines. Principles and elements of design related to ready-to-wear apparel. Personal fashion analysis.

**200 Introduction and Communication in Apparel and Interior Design (3)**

Introduction to communication techniques for apparel and interior design professionals. Problem solving techniques using rapid visualization and computers for concept development and presentations.

**256 Weight Control and Nutrition (3)**

Application of nutrition knowledge to weight control. Theories, costs, controls, prevention, and treatment of weight related problems. Current research and literature on nutrition/food and weight control.

**312 Families, Individuals, and Environments (3) F,S**

*Prerequisite:* upper division standing. Family and consumer sciences through understanding common knowledge base from study of clothing/textiles, child/family development over the life span, foodservice management/nutrition, interior design/housing, and resource management.

**320 Children and Families (3) [GE] F,S**

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.

**321 Adolescents and Families (3) [GE] F,S**

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.

**322 Early Childhood Education Curriculum (Birth to Five) (3) F**

*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.

**323 Infant/Toddler Development (3) [GE] F**

*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.

**324 Administration of Infant/Toddler Programs (3) S**

*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.

**325 Transitions in the Family Life Cycle (3) [GE] F,S**

Transitions in relationships throughout the family life cycle; dynamics of family interactions within family systems. Implications of recent research for personal and family decisions.

**330 Family and Consumer Economics (3)**

*Prerequisites:* ECON 100, 101. Socio-psychological, economic, and demographic characteristics as determinants of consumption. Expenditures for individual and family well-being; possible impact on societal resources and the environment.

**351 Asian Food, Culture, and Hospitality (3) [GE]**

*Prerequisite:* ENG 214. For course description, see HM 351. May not be repeated under alternate prefix.

**352 Foods, Production, and Service (3) [GE]**

*Prerequisite:* ENG 214. 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. (Also offered as DFM/HM 352. May not be repeated under alternate prefix.)

**353 Foodservice Systems Management (3) F,S**

*Prerequisite:* upper division standing. 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/HM 353.)

**354 Foods, Nutrition, and the Consumer (3)**

*Prerequisites:* CFS 352. Food production and distribution as they relate to consumption and to nutrient values. Factors affecting price and quality. Consumer decision-making. Selection, comparison, and purchasing for home and institutions.

**355 Nutrition for Wellness (3) [GE] F,S**

*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.

**356 Foods and World Culture (3) [GE]**

*Prerequisite:* ENG 214. 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.

**360 Clothing Study II (3) F**

*Prerequisite:* CFS 160 or consent of instructor. Advanced clothing construction; focus on (a) couturier or (b) tailoring processes. Emphasizes fit, pattern alterations, fabric handle and shaping, and construction processes. May be repeated once for credit with different focus.

**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.

**421 Children and Stress (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Issues and research concerning parental characteristics, pervasive influences, social forces, and situations that stress the child and hinder development. Application of positive strategies for emotional support and nurture concerning divorce, death, family change, and other areas of stress.

**423 Administration of Programs for Young Children (3) F**

*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.

**424 Supervised Experiences with Young Children (3) F,S**

*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.

**426 Family Crises (3) [GE]**

Crisis and crisis intervention theories; common disruptions in family experience; new directions in solutions that re-establish family functioning.

**427 Families with Alcohol/Drug Dependency and Eating Disorders (3)**

*Prerequisite:* upper division standing or consent of instructor. Roles and relationship perspectives in families with alcohol/drug dependency and eating disorders; codependency. Recovery issues; intervention services for families.

**428 Families with Violence, Abuse, and Neglect (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Patterns of victimization in families with violence, abuse, and neglect; profiles of victims and perpetrators; family relationship perspectives; inter-generational patterns of victimization. Intervention issues; services for families.

**429 Divorce, Remarriage, and Stepfamilies (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Relationship perspectives in divorce, remarriage, and stepfamilies; social, economic, legal trends and issues. Role of divorce professionals.

**430 Management Dynamics: Life Goals and Decisions (3) [GE] A**

Needs, values, goals, standards, policies, and decision-making processes central to the dynamics of managing resources in the performance of family and professional roles.

**453 Nutrition in the Life Cycle (3) [GE]**

*Prerequisite:* college-level course in nutrition. 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.

**466 Textile Analysis and Testing (3) A**

*Prerequisites:* CFS 366 and 367 or equivalent; CFS 460, MATH or BA 110. Physical and chemical analysis of textile fibers, dyes, finishes, and fabrics. Consumer textile problems and textile product quality. Classwork, 2 units; laboratory, 1 unit.

**481 Consumer and Family Studies/Dietetics Field Experience (3) F,S**

*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.

**481 Consumer and Family Studies/Dietetics Field Experience (2) F,S**

*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.

**481 Consumer and Family Studies/Dietetics Field Experience (4) F,S**

*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.

**487 Seminar: Fashion Merchandising (2)**

*Prerequisite:* CFS 369. Must be taken concurrently with CFS 486. Methods and policies used by retail establishments engaged in the merchandising of ready-to-wear clothing.

**522 Childhood Policies and Issues (3) [GE]**

*Prerequisites:* CFS 320 or equivalent, and upper division standing. Policies, trends, issues, research concerning children: effects of ecological systems, various types of care, and education in the U.S.

**557 Restaurant and Catering Management (3)**

*Prerequisites:* CFS 352, CFS 353. Standards and theories dealing with restaurant and catering operations, including marketing strategies, food purchasing, production, meat merchandising, and services. Classwork, 2 units; laboratory, 1 unit. (Also offered as DFM/HM 557. May not be repeated under alternate prefix.)

**600 Professional Development (3)**

*Prerequisites:* senior standing and passing score on JEPET or ENG 411/414. Enrollment limited to majors or consent of instructor. 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. (Also offered as ADM/ID 600. May not be repeated under alternate prefix.) (Formerly CFS 412.)

**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.

**685 Projects in Teaching of Consumer and Family Studies/Dietetics (1-4)**

*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. May be repeated for a total of 4 units.

**699 Special Study (1-3) F,S**

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****700 Seminar: Trends and Issues in Family and Consumer Sciences (3) S**

Trends and issues in family and consumer sciences. New concepts; review of research; and application of findings to problems of families, individuals, and curricula.

**720 Child Development and Family Relations: Research Theory and Current Issues (3)**

*Prerequisite:* CFS 320 or 325, or equivalent. Child development and family relations; current trends and issues: social, cultural, and intra-familial forces that influence family function; evaluation of resources. Opportunity for individual study in areas of special interest.

**740 Seminar in Housing and Interior Design (3) A**

*Prerequisites:* CFS 540 and 541 or equivalent. Selected topics in housing and/or interior design.

**750 Seminar in Human Nutrition and Food Technology (3) A**

*Prerequisites:* six upper division units related to topic emphasis. Topic to be specified in Class Schedule. May be repeated once when topic varies.

**760 Seminar in Clothing and Textiles (3) A**

*Prerequisites:* six upper division units related to topic emphasis. Topic to be specified in Class Schedule. May be repeated once when topic varies.

**794 Seminar in Research (3)**

For course description, see NURS 794.

**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.

**890 Seminar in Selected Studies in Family and Consumer Sciences/Dietetics (3)**

*Prerequisite:* departmental permission. Topic to be specified in Class Schedule. May be repeated for a total of 6 units when topics vary.

**891 Directed Readings in Family and Consumer Sciences/Dietetics (3) F,S**

*Prerequisite:* M.A. candidacy in Family and Consumer Sciences. Directed reading under supervision of a faculty member in the department.

**895 Field Study (3) F,S**

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**897 Research in Family and Consumer Sciences/Dietetics (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.

**898 Master's Thesis (3) F,S**

*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.

**899 Special Study (2-4) F,S**

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***280 Empowering Poor Families to Graduate Out of Poverty (2-3)**

For course description, see H ED 280. Open to all students. May be repeated for a total of 6 units. CR/NC grading only.

**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.

**326 Work and Leadership Issues of Bisexual, Lesbian, and Gays (3)**

*Prerequisite:* ENG 114. For course description, see HMSX 326.

**333 From Classroom to Career (1)**

Using current work as a "laboratory," students explore relationship among classroom, individual talents, and current or future job search. Must have part-time job, internship, or volunteer employment concurrently.

**334 Career Success Skills (2)**

*Prerequisite:* ENG 214 or equivalent. Students assess personal skills, interests, values, and personality traits and use this knowledge to research their career/major interest areas. Effective job search skills, including resumé/cover letter writing and interview preparation.

**366 Introduction to Independent Living Services (3)**

*Prerequisite:* consent of instructor. Strategies utilized in independent living centers to empower persons with disabilities; training, peer counseling, referral; accessing resources, individual systems change advocacy. Problems and strategies are viewed within social-political context. Paired with COUN 866. Students who have completed COUN 366 may not take COUN 866 later for credit.

**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.

**450 AIDS and People of Color in the U.S. (3) [GE]**

*Prerequisites:* BIOL 327 and H ED 370. The political, psychological, social, and economical impact of AIDS/HIV infection on diverse cultural backgrounds. Prevention and educational strategies. (Also offered as ETHS 460. May not be repeated under alternate prefix.)

**604 Psychosocial Aspects of Disability (3)**

*Prerequisite:* consent of instructor. Psychosocial reactions to physical disability. Includes disability experience, loss, mourning, social-environmental impacts on disability, self-concept, interpersonal relations, culture, and coping. Issues related to mental illness also discussed. Paired with COUN 704. Students who have completed COUN 604 may not take COUN 704 later for credit.

**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.

**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.

**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.

**614 Interpersonal Issues in Sexuality (3) [GE]**

*Prerequisites:* upper division standing and consent of instructor. Interpersonal issues regarding their sexuality in a supportive atmosphere; individual development and greater self-understanding.

**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.

**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.

**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.

**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.

**690 Field of Counseling I (3)**

*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.

**691 Field of Counseling II (3)**

*Prerequisites:* SW 410 or PSY 431, COUN 690, or graduate status, or consent of instructor. Basic counseling methods for different career stages, students, persons with disabilities and mental illnesses; gay, lesbian, bi-sexual, transgendered, and ethnic groups. Computers integrated with counseling methods.

**695 Americans with Disabilities Act Training (3)**

*Prerequisite:* consent of instructor. ADA's legislative history, regulations, enforcement mechanisms, technical and community resources, and advocacy techniques.

**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***700 Theories of Counseling (3)**

*Prerequisite:* undergraduate course in personality theories and consent of instructor; must be taken prior to or concurrently with COUN 736. Theories of counseling and personality. Counseling process and practice relating to major approaches; therapeutic practices with illustration of relevant techniques and cases.

**702 Developmental Foundations for Counselors (3)**

*Prerequisite:* undergraduate course in lifespan human development and consent of instructor. May be taken concurrently with COUN 706. 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.

**703 Psychological Foundations for Counselors (3)**

*Prerequisite:* undergraduate course in psychopathology or abnormal behavior and consent of instructor. May be taken concurrently with COUN 706. 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.

**704 Psychosocial Aspects of Disability (3)**

*Prerequisite:* COUN 703 and consent of instructor. For course description, see COUN 604. Paired with COUN 604. Students who have completed COUN 704 may not take COUN 604 for credit.

**705 Practicum and Internship (2-3)**

*Prerequisite:* consent of instructor. Must be taken concurrently with COUN 706. Initial practicum and intern experience for counseling students. CR/NC grading only.

**706 Counseling Process (3)**

*Prerequisites:* COUN 702 and 703 (may be taken concurrently); consent of instructor. Must be taken concurrently with COUN 705. Clinical interviewing skills; individual growth in clinical processes.

**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.

**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.

**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.

**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.

**720 Career Counseling (1 or 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.

**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.

**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.

**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 a week minimum in appropriate clinical facilities. CR/NC grading only.

**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. Clinical analysis of counseling cases; individual counselor growth in assessment, management, and disposition of clients.

**738 Substance Abuse (2-3)**

*Prerequisite:* consent of instructor. Dynamics, behaviors, and treatment interventions related to substance abuse; legal and clinical aspects.

**748 Rehabilitation Engineering Technology (1-3)**

*Prerequisite:* consent of instructor. Utilization and application of existing technologies to solve client rehabilitation problems in communication, mobility, daily living, and work.

**749 Rehabilitation Engineering Technology II (3)**

*Prerequisite:* COUN 748. Review of technology in selected areas of rehabilitation; techniques for evaluating user feedback; field testing and follow-up; criteria for future designs.

**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.

**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.

**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.

**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.

**754 Special Conditions in Mental Health Assessment of Deaf and Hard of Hearing Persons (1)**

*Prerequisite:* COUN 753. Mental health assessment of deaf and hard of hearing individuals; dual diagnosis, learning disabilities, HIV/AIDS, problems with social cognition skills. Strategies for optimizing a vocational plan. May be repeated for a total of 2 units.

**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.

**756 Coping Strategies: Hearing Loss and Work (1)**

*Prerequisite:* COUN 755. Aural rehabilitation service paradigms, hearing aids, assistive listening devices, myths and realities associated with speech and reading; communication strategies for vocational settings, job site accommodations, consumer group resources, relevant legislation for vocational placement/retention. May be repeated for a total of 2 units.

**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.

**758 Psychological Testing of Deaf and Hard of Hearing Persons--Applications and Critiquing Test Reports (1)**

*Prerequisites:* COUN 715 and COUN 757. Critique test reports, become informed consumers, implementation issues regarding report recommendations, understanding test results on a practical, applied level. May be repeated for a total of 2 units.

**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.

**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.

**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.

**766 Medical/Social Aspects of Rehabilitation Counseling (3)**

*Prerequisite:* consent of instructor. 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.

**778 Occupational Information, Dynamics, and Placement in Rehabilitation Counseling (3)**

*Prerequisite:* consent of instructor. Use of occupational information in the vocational development and adjustment process; problems and procedures in job placement of disabled persons.

**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.

**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.

**794 Seminar in Health and Human Services 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.

**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.

**814 Practicum on Interpersonal Development (2)**

*Prerequisite:* consent of instructor. Group practicum with professional peers involving interaction among members to investigate the relationship among personal attitudes, values, and professional development.

**820 Counseling the Older Adult (2)**

*Prerequisite:* consent of instructor. Individual and group counseling; couples and family counseling

with the older adult; sexuality, lifestyle, and economics of older adults.

**821 Mental Health Assessment with the Older Adult (1)**

*Prerequisite:* consent of instructor. Psychological tests and interview assessment techniques for use with older adults; administration, adaptation, and interpretation of psychological tests.

**825 Seminar on Selected Problems in Counseling (1-3)**

*Prerequisite:* consent of adviser and instructor. Topic to be specified in *Class Schedule*.

**827 The Consultation Process (1)**

*Prerequisite:* COUN 706, COUN 736, and consent of instructor. Dynamics of the consultation process; implications for various specialists in developing effective working relationships with teachers and parents.

**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.

**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.

**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.

**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.

**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.

**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.

**861 Seminar on Child Treatment (3)**

*Prerequisites:* COUN 702, 703, 736, and consent of instructor. Concepts, processes, techniques of child

and adolescent treatment, crisis intervention, supportive counseling, and psychotherapeutic treatment.

**866 Introduction to Independent Living Services (3)**

*Prerequisite:* consent of instructor. For course description, see COUN 366. Paired with COUN 366. Students who have completed COUN 866 may not take COUN 366 for credit.

**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.

**880 Rehabilitation Counseling Fieldwork and Internship (1)**

*Prerequisites:* COUN 735 and consent of instructor. Supervised field experience in community rehabilitation agency. Evaluation of counselor effectiveness, analysis of professional problems.

**885 Advanced Communication Skills (3)**

*Prerequisites:* COUN 736 or equivalent and advanced graduate status. Utilizing cognitive and emotional aspects of communication in interviewing, counseling, consulting, and supervising.

**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.

**887 Advanced Theoretical Foundations in Counseling (3)**

*Prerequisites:* COUN 700, 703, or equivalents, and advanced graduate status. Theories of inter- and intra-personal behavior and behavior change, applications to change, processes for individuals and organizations.

**889 Supervision and Consultation in Counseling (3)**

*Prerequisites:* COUN 885 and consent of instructor. Role and impact of supervision and consultation in the counseling process.

**890 Integrative Counseling (3)**

*Prerequisites:* COUN 736. Must be taken concurrently with COUN 892. Integrate and apply counseling constructs: assessment and diagnosis, treatment planning, clinical interventions, law and ethics, and therapeutic relationships.

**891 Case Studies and Internship Seminar (3)**

*Prerequisites:* COUN 811 and consent of instructor. Must be taken concurrently with COUN 892. Analysis of problems in assessment, management, and disposition. Application of methods and procedures to counseling specializations.

**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.

tiveness; analysis of professional problems. May be repeated for a total of 8 units. CR/NC grading only.

### 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

#### 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. CR/NC grading only.

#### 300 Video Art: New Modes of Production (3) [GE]

*Prerequisite:* ENG 114 or equivalent. Historical and contemporary practices of video making. All production stages from initial ideas through final video, using analogue, digital, and hybrid methods. Laboratory. May be repeated for a total of 6 units.

#### 301 Introduction to Computers as Arts Media (3)

*Prerequisites:* upper division standing and creative arts major. Arts applications such as graphics, music, computer-aided design, word processing, and information networks; principles of computer software and hardware; programming skills. Preparation for use of computers in expressive activities. Laboratory. Extra fee required.

#### 370 Arts and Artists of San Francisco (3) [GE]

Contemporary artistic issues and styles of San Francisco. Discussions with working artists, demonstrations of current techniques and practices in art, music, theatre, film, video, and design.

#### 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.

#### 426 Thought and Image II (3) [GE]

*Prerequisite:* ENG 114 or equivalent. Works in the arts and humanities studied as central expressions of the meanings and values of their respective cultures. Works are paired from differing cultures on a global scale for cross-cultural comparison.

#### 440 Survival Strategies for Artists (3) [GE]

*Prerequisite:* upper division standing. Artists' rights/ethics, censorship, traditional and alternative spaces, arts funding, exhibition/performance opportunities, arts-related careers, resumes, bios, artists' statements, press releases. Visits to arts organizations.

#### 514 Preparation for Graduate Writing (3) F

*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.

## CREATIVE WRITING

### Undergraduate Courses

#### 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.

#### 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.

#### 403 Short Story Writing One (3) F,S

*Prerequisite:* C W 301 or C W 101 with a grade of C or better. Enrollment limited to creative writing majors. Non-majors admitted with consent of instructor. Writing and analysis of short stories in a workshop setting. Problems of style, form, intention, and technique. May be repeated for a total of 6 units.

#### 404 Poetry Writing One (3) F,S

*Prerequisite:* C W 301 or C W 101 with a grade of C or better. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Writing and analysis of poems in a workshop setting. Problems of style, form, voice, and craft. May be repeated for a total of 6 units.

#### 405 Playwriting (3) F,S

*Prerequisite:* C W 301 or C W 101 with a grade of C or better. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Writing and analysis of plays. Problems of such craft aspects as voice, form, characterization, and dialogue. May be repeated for a total of 9 units.

#### 506 The Business of Creative Writing (3)

*Prerequisite:* C W 101 or C W 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 C W 806. Students who have completed C W 806 may not take C W 506 for credit.

#### 507 Writing on the Body (3) [GE]

*Prerequisites:* C W 101 or C W 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.

#### 509 Jewish Writers in the American Poetry Archives (3)

*Prerequisites:* ENG 114 or CW 301 or 101. Jewish poets and fiction writers videotaped in the American Poetry Archives. Meaningful Jewish issues; analysis of each writer's artistic endeavor. (Also offered as JS 509.)

#### 510 The Creative Process (3)

*Prerequisite:* C W 301 or C W 101 with a 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.

#### 511 Craft of Poetry (3)

*Prerequisite:* C W 301 or C W 101 with a grade of C or better. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Basic craft elements of poetry: diction, imagery, rhythm, voice, and form. Discussion of student and professional writing.

#### 512 Craft of Fiction (3)

*Prerequisite:* C W 301 or C W 101 with a grade of C or better. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Basic craft elements of fiction: plot, dialogue, character, point of view, and place. Discussion of student and professional writing.

#### 513 Craft of Playwriting (3)

*Prerequisite:* C W 301 or C W 101 with a grade of C or better. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Basic craft elements of playwriting: scene, story, dialogue, character, and conflict. Discussion of student and professional writing.

#### 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 C W 820. Students who have completed C W 520 may not take C W 820 for credit.

#### 550 Poetry Center Workshop (3)

*Prerequisite:* ENG 214 or C W 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 C W 850. Students who have completed C W 550 may not take C W 850 for credit.

#### 600 Special Topics in Writing (3)

*Prerequisite:* C W 301 or C W 101 with a 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.

#### 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.

#### 603 Short Story Writing Two (3)

*Prerequisites:* C W 301 and C W 403. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Writing and analysis of

short fiction. Developing character and voice. May be repeated for a total of 9 units.

#### 604 Poetry Writing Two (3)

*Prerequisites:* C W 301 and C W 404. Enrollment limited to creative writing majors; non-majors admitted with consent of instructor. Writing and analysis of poetry. Techniques used in poetry: rhythm, rhyme, meter, imagery, metaphor, etc. May be repeated for a total of 9 units.

#### 605 Writing and Performing Monologues (3)

*Prerequisite:* C W 301 or TH A 130 or consent of instructor. For course description, see TH A 605.

#### 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.

#### 640 Transfer Literary Magazine (3)

*Prerequisites:* C W 301 and either C W 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 C W 510 requirement.

#### 675 Community Projects in Literature (3)

*Prerequisites:* C W 301 or C W 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 C W 875. May be repeated for a total of 6 units.

#### 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. May be repeated for a total of 4 units.

#### 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

#### 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; consent of instructor. Application of previously acquired knowledge through assisting instruction and learning pedagogical strategies. MFA students may repeat for a total of 9 units; MA students can take no more than 3 units for degree credit.

#### 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.

ative and critical abilities. May be repeated for a total of 9 units.

#### 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.

#### 806 The Business of Creative Writing (3)

*Prerequisite:* classified graduate status in creative writing or consent of instructor. For course description, see C W 506. Graduate students write a longer research paper and organize panel discussions. Paired with C W 506. Students who have completed C W 506 may not take C W 806 for credit.

#### 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.

#### 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.

#### 810 Seminar in the Creative Process (3)

*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.

#### 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.

#### 824 Advanced Novel Workshop (6)

*Prerequisites:* classified graduate status in creative writing and consent of instructor. Advanced writing workshop for students who have made substantial progress with a promising novel and are ready to make a concentrated effort towards revision and completion. May be taken once for degree credit by M.A. students, and twice for degree credit by M.F.A. students.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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.

#### 875 Community Projects in Literature (3)

*Prerequisite:* classified creative writing graduate status or consent of instructor. Paired with C W 675. For course description, see C W 675. May be repeated for a total of 6 units.

#### 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.

**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.

**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.

**893 Written M.F.A. Creative Work (6)**

*Prerequisites:* advancement to candidacy for the Master of Fine 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.

**893 Written M.A. Creative Project (3)**

*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.

**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).

**CRIMINAL JUSTICE***Undergraduate Courses***300 Criminal Justice: A Cross-disciplinary Perspective (4) [GE]**

*Prerequisite:* upper division standing. Analysis and critique of the contemporary criminal justice system. Includes field observation and guest lecturers. Classwork, 3 units; fieldwork, 1 unit.

**320 Literature in Criminal Justice (4)**

*Prerequisite:* upper division standing. Critical appraisal of basic perspectives on criminal process as reflected in published sources; primarily, non-fiction. Literature is selected for its value in clarifying and pursuing the basic perspectives of crime control, due process, and class justice. Classwork, 3 units; fieldwork, 1 unit.

**330 Heuristics in Criminal Justice (4)**

*Prerequisite:* upper division standing. "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. Classwork, 3 units; fieldwork, 1 unit.

**335 Legal Writing and Research (4)**

*Prerequisites:* CJ 300 and CJ 330 or consent of instructor. The legal brief as the focus of strong inference writing in criminal justice. Classwork, 3 units; fieldwork, 1 unit.

**340 Comparative Criminal Justice Systems (4) F**

*Prerequisite:* upper division standing. 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. Classwork, 3 units; fieldwork, 1 unit.

**400 Police and Public Policy (4)**

*Prerequisite:* upper division standing. 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. Classwork, 3 units; fieldwork, 1 unit.

**401 Criminal Profiling (4)**

*Prerequisite:* upper division standing or consent of instructor. Analysis of the application of personality studies in homicide, arson, rape, and terrorist cases. Classwork, 3 units; fieldwork, 1 unit.

**405 Organized Crime: A Comparative Study (4)**

*Prerequisite:* upper division standing or consent of instructor. Organized criminal enterprise recognizes no geographic, legal, or moral boundaries. Salient characteristics and impact of criminal organizations in various settings; crime control strategies. Classwork, 3 units; fieldwork, 1 unit.

**420 Community Policing (4)**

*Prerequisite:* upper division standing. Trend in law enforcement toward decentralization of administration and enhancement of neighborhood interaction between police and citizens on a proactive, preventative basis. Classwork, 3 units; fieldwork, 1 unit.

**430 Women in Policing (4)**

*Prerequisite:* upper division standing. Increasing scale and impact of women in law enforcement. Controversies over physical strength on the job, feminist views on policing, and the connections with community policing. Classwork, 3 units; fieldwork, 1 unit.

**450 Jails and Prisons (4)**

*Prerequisite:* upper division standing. Political economy of the prison industry in the U.S.; the jail as well as the prison. Field study at San Quentin and the San Francisco jails. Classwork, 3 units; fieldwork, 1 unit.

**451 The Architecture of Incarceration (4)**

*Prerequisite:* upper division standing or consent of instructor. The connections between architectural design and management of U.S. jails and prisons. Classwork, 3 units; fieldwork, 1 unit.

**455 Incarceration Study (4)**

*Prerequisites:* CJ 450 or CJ 681, or consent of instructor. Supervised application of theory regarding in-

carceration as policy and practice in the U.S. Focus on clinical approaches to incarceration based upon study of lives of inmates. Classwork, 3 units; fieldwork, 1 unit.

**460 Community Corrections and Sentencing (4)**

F

*Prerequisite:* upper division standing. Deinstitutionalization movement within the prison industry in the U.S. Development of the scale and reach of the prison industry, incarceration rates relative to violent and non-violent offenses, incarceration rates for drug offenses, development of decentralized, community-related sentencing. Classwork, 3 units; fieldwork, 1 unit.

**461 Terrorism and Covert Political Warfare (4)**

*Prerequisite:* upper division standing or consent of instructor. For course description, see I R 361. (May not be repeated under alternate prefix.)

**470 Juvenile Justice (4)**

*Prerequisite:* upper division standing. For course description, see SOC 452. Classwork, 3 units; fieldwork, 1 unit.

**501 Criminal Law (4)**

*Prerequisites:* upper division standing. 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. Classwork, 3 units; fieldwork, 1 unit.

**502 Criminal Procedure (4)**

F

*Prerequisite:* upper division standing. 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. Classwork, 3 units; fieldwork, 1 unit.

**503 Criminal Adjudication in the U.S. (4)**

*Prerequisite:* upper division standing or consent of instructor. Case law emerging from appellate review of criminal trials, and the more frequent process of plea bargaining. Observations in criminal courts. Classwork, 3 units; fieldwork, 1 unit.

**505 International Criminal Law (3)**

*Prerequisite:* upper division standing or consent of instructor. Comparative legal systems and the U.S. system of criminal law. Classwork, 3 units; fieldwork, 1 unit. (Also offered as IR 332. May not be repeated under alternate prefix.)

**515 Extremism as Crime (4)**

*Prerequisite:* upper division standing or consent of instructor. Domestic extremism in the U.S. (militia, hate crimes, terrorism). Classwork, 3 units; fieldwork, 1 unit.

**520 Construction of Crime and Justice (4)**

*Prerequisite:* upper division standing or consent of instructor. Critical analysis of the images and realities, mythological construction of crime and the criminal justice system in the U.S. Classwork, 3 units; fieldwork, 1 unit.

**540 Classic Cinema in Criminal Justice (4)**

*Prerequisite:* upper division standing or consent of instructor. A repertoire of 25 films--"Public Enemy" and "I Was a Fugitive From a Chain Gang" to "Godfather"--introduce students to issues, concepts, theories, and practices in criminal justice; crime control, due process, class justice, race and racism. Classwork, 3 units; fieldwork, 1 unit.

**550 Current Issues in Criminal Justice (4)**

*Prerequisite:* upper division standing. Topic to be specified in Class Schedule. May be repeated for a total of 12 units when topics vary. Classwork, 3 units; fieldwork, 1 unit.

**680 Field Course in Criminal Justice (4)**

*Prerequisite:* upper division standing. Data gathering, organization, and presentation of research to students engaged in field studies in any criminal justice system setting.

**681 Internships in Criminal Justice (4) F**

*Prerequisites:* C J 300 and two courses selected from C J 320, 330, and 340. A formal internship must have been secured prior to enrollment. An internship within an agency central to criminal justice. Agency supervisor must accept responsibility for supervision and evaluation of student intern's development, in conjunction with the campus faculty supervisor. May be repeated once for a total of 8 units.

**685 Projects in the Teaching of 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.

**699 Special Study (1-4)**

*Prerequisites:* upper division standing; consent of instructor, major adviser, and department chair. Supervised study of a particular criminal justice issue selected by student.

**CRITICAL SOCIAL THOUGHT***Undergraduate Courses***300 Introduction to Critical Social Thought (3)**

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.

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

For course description, see ANTH 320.

**400 Topics in Critical Social Thought (3)**

Topic to be specified in Class Schedule. Selected special topics in critical social thought. May be repeated when topics vary.

**403 Critical Social Theory and Postmodern Society (3)**

*Prerequisite:* upper division standing or consent of instructor. For course description, see SS 403. May not be repeated under alternate prefix.

**585 Multinational Corporations and World Cultures (3) [GE]**

*Prerequisite:* ANTH 120. For course description, see ANTH 585.

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

*Prerequisite:* ENG 114 or equivalent. For course description, see ANTH 590. (Also offered as WOMS 595.)

**DANCE***Undergraduate Courses*

A total of 4 units may be earned in any course numbered 100-199, 206-209, 236, or 308.

**Dance Studies****160 African Haitian Dance I (1) [GE]****161 African Haitian Dance II (1)****163 Ballet I (1) [GE]****164 Ballet II (2)****166 Ballroom Dance I (1) [GE]****167 Ballroom Dance II (1)**

*Prerequisite:* DANC 166 or consent of instructor.

**173 Modern Dance I (1) [GE]****174 Modern Dance II (2)****176 Modern Jazz Dance I (1) [GE]****177 Modern Jazz Dance II (2)****203 Introduction to Dance Ethnology (2)**

*Prerequisites:* DANC 169, DANC 207, ANTH 120, or consent of instructor. Basic concepts, theories, and methods of the ethnology of dance. (Also offered as ANTH 203. May not be repeated under alternate prefix.)

**206 Ballet III (2)**

*Prerequisite:* DANC 164 or consent of instructor.

**207 Dance in Cultural Context (2) [GE]**

Topic to be specified in Class Schedule. May be repeated when topics vary. Classwork, 1 unit; laboratory, 1 unit.

**208 Modern Dance III (2)**

*Prerequisite:* DANC 174 or consent of instructor.

**209 Modern Jazz Dance III (2)**

*Prerequisite:* DANC 177 or consent of instructor.

**231 Fundamentals of Dance Movement Theories (2)**

Basic dance elements: movement qualities, locomotor and non-locomotor movement, vocabulary, rhythmic structures, force and body placement in conjunction with kinesthetic awareness, improvisation, and pre-composition.

**232 Dance Composition: Choreography I (3) [GE]**

*Prerequisite:* DANC 231 or consent of instructor. Choreography and creative process in dance: improvisation, exploration, form, and content in the formation of solo works. Classwork, 1 unit; activity, 2 units.

**234 Social and Ballroom Dances of the U.S. (2)**

History and practice of social and ballroom dances of the U.S. and the relationship of their origins to music and culture. Practice of the dances and recognition of the music. Classwork, 1 unit; activity, 1 unit.

**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; activity, 1 unit.

**300 Seminar in Dance (2)**

*Prerequisite:* ENG 114 and upper division standing. Philosophies of dance, legal issues, new developments, organizations, courses, grantsmanship, dance therapy, and dance education. Classwork, 1 unit; activity, 1 unit.

**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.

**306 Issues in Dance Medicine II (3)**

*Prerequisite:* DANC 304 or equivalent. Anatomical and kinesiological analysis of dance technique and common dance injuries. Personal technique analysis. Classwork, 2 units; activity, 1 unit.

**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.

**308 Modern Dance IV (2)**

*Prerequisites:* DANC 208 and DANC 400 or consent of instructor.

**310 Dance Conditioning/Pilates (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Enrollment priority for dance majors. Physical conditioning through dance and pilates techniques including strength, flexibility, weight control, nutrition, cardiovascular issues. Classwork, 2 units; activity, 1 unit.

**316 Dunham Dance Technique (2) [GE]**

*Prerequisites:* DANC 160, DANC 161, DANC 176 or DANC 177, or consent of instructor. Intermediate level Dunham dance technique: movement patterns, isolation, progression, and Barre exercises based on studies in African Haitian and modern dance and developed by Katherine Dunham School of Dance. May be repeated for a total of 4 units.

**340 Creative 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.

**350 Dance Watching (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Dance for the viewer. Cross-cultural and

aesthetic exploration of dance's various theatre and folk forms and its place in the arts and culture.

### 399 Repertory in Performance (2)

*Prerequisites:* audition and Level III or equivalent of Modern, Ballet, or Jazz, or ethnic dance forms. Year-long repertory experience with faculty or guest artist choreographic works. Work in rehearsal during Fall; performance tour during Spring. May be repeated for a total of 4 units.

### 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.

### 415 Dance in Magic and Religion (3) [GE]

*Prerequisite:* upper division standing or consent of instructor. Dance ritual and its role in the religions of selected cultures.

### 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.

### 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.

### 432 Dunham Technique: History, Theory, and Philosophy (3) [GE]

*Prerequisite:* upper division standing or consent of instructor. Study of the Dunham technique through the history of Katherine Dunham's life, her philosophy and theory of dance, and its relationship "to a way of life."

### 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.

### 461 Principles of Dance Production and Management (3)

*Prerequisite:* upper division standing or consent of instructor. Production planning and management related to dance production. Public relations, marketing, program development, budgetary planning, undraising, stage management, costuming, touring are applied in producing a departmental dance production. May be repeated for a total of 6 units.

### 463 Performance in Dance Production (1)

*Prerequisites:* intermediate technique level and audition. Rehearsal and performance in contemporary dance concert. May be repeated for a total of 2 units. CR/NC grading only.

### 545 Traditional Kulintang Music and Dance of the Southern Philippines (3)

*Prerequisite:* upper division standing or consent of instructor. For course description, see ETHS 545. May be repeated once. (Also offered as MUS 545.)

### 560 Theory and Practice of Dance Education (3)

*Prerequisites:* upper division standing and consent of instructor. Role of dance in education and society. Information, interpretation of materials, and means of organization: ways of presenting this material to others. May be repeated for a total of 6 units.

### 617 Black Dance Experience (3) [GE]

For course description, see BLS 617. (May not be repeated under alternate prefix.)

### 640 Movement, Intermedia, and Virtual Response (3)

*Prerequisites:* intermediate level dance technique and DANC 232, or 12 units in Creative Arts courses. Methods for creating new cohesive forms of expression combining choreography, dance, and movement with such intermedia forms as video, film, projection, text, computer graphics.

### 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. (Also offered as ANTH 657. May not be repeated under alternate prefix.)

### 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.

## DESIGN AND INDUSTRY

### Undergraduate Courses

#### 110 The Arts of Industry (3) [GE]

*Priority enrollment 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.

#### 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. Classwork, 2 units; laboratory and fieldwork, 1 unit.

#### 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.

#### 300 Design I (3) [GE]

*Prerequisite:* 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.

#### 320 Drafting and Sketching for Design (3) [GE]

*Prerequisite:* 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.

#### 321 Introduction to Computer-Aided Drafting (3) [GE]

Fundamentals of two-dimensional geometric image generation techniques to familiarize the student with computer-aided drafting (CAD). Micro-computer CAD hardware and software. Laboratory. Extra fee required.

#### 322 Computer Graphic Imaging (3) [GE]

*Prerequisite:* 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.

#### 324 Communications/Presentations (3)

*Prerequisite:* ENG 214 or consent of instructor. Forms of technical writing and speaking. Brief documents such as memos and letters with movement toward extended and formal technical documents and presentations.

#### 325 Graphic Design I: Introduction (3)

*Prerequisite:* DAI 322 or equivalent 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.

#### 326 Graphic Reproduction Technology I (3) [GE]

*Prerequisite:* upper division standing or consent of instructor. *Priority enrollment given to DAI majors.* Processes of contemporary print production theories and print-based media. Contemporary relief and offset reproduction. Laboratory. Extra fee required.

#### 327 Digital Media I: Introduction (3)

*Prerequisite:* upper division standing or consent of instructor. Introduction to digital media design for multimedia presentations and screen-based design. Conceptual approaches to designing new media, basic graphic design considerations germane to this medium, and production skills using digital media applications. Laboratory. Extra fee required.

#### 332 Electric Energy (3) [GE]

*Prerequisite:* upper division standing or consent of instructor. Fundamentals of A/C and D/C circuit theory. Principles of generation, power distribution, and motors. Practical problems in home and industry. Classwork, 2 units; laboratory, 1 unit. Extra fee required.

**342 Metals Manufacturing (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Priority enrollment given to DAI majors. Contemporary metals design and manufacturing processes. Evolution of metal forming practices from traditional to computer-based automated processes. Laboratory. Extra fee required.

**344 Plastics Technology I (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. History and development of the plastics industry including basic materials, processes, and technology. Laboratory. Extra fee required.

**356 A History of Design and Technology (3) [GE]**

*Prerequisite:* 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.

**370 Colloquium (3)**

*Prerequisite:* junior 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.

**400 Design II (3)**

*Prerequisite:* DAI 300 or equivalent. Two- and three-dimensional design through renderings, displays, pictorials, exhibits, charts, graphs, printouts, and visuals. Development of style. Laboratory.

**405 How to Develop, Patent, and Market an Idea (3)**

Presentations by experts from the field concerning consumer trends, procedures, pitfalls, advantages, and disadvantages involved in developing, patenting, and marketing new ideas or products.

**406 Model Development Laboratory (3)**

*Prerequisite:* DAI 300 or equivalent 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.

**424 Rapid Visualization (3)**

*Prerequisite:* upper division standing. Illustration of product and graphic design ideas. Three-dimensional sketching and rendering techniques. Classroom, 2 units; laboratory, 1 unit.

**425 Graphic Design II (3)**

*Prerequisite:* DAI 325 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.

**427 Digital Media II: Graphical User Interface Design (3)**

*Prerequisites:* DAI 323, DAI 325, or consent of instructor. Design and prototyping of graphical interfaces for human-computer interaction. Audience research, information structures, interaction design, visual theme, media. Analysis of applications: Inter-

net, software, instructional media, on-line communities. Laboratory.

**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.

**432 Electronics I (3)**

*Prerequisite:* DAI 332 or equivalent. Study of DC/AC motors, generators, control components, analysis and design of relay and solid-state control circuits. Laboratory. Extra fee required.

**440 Manufacturing Process and Systems (2)**

*Prerequisite:* upper division standing or consent of instructor. Major mechanical equipment and systems for manufacturing processes. Site selection, facility planning and development, process flow and system operation, and maintenance/service functions.

**450 Industrial Safety (2)**

Principles of safety in industrial, occupational, and school situations. California OSHA legislation, inspections, chemical hazards, chemical waste handling, environmental considerations, machinery conditions, fire, lighting, and general safety.

**460 Automated Manufacturing Systems (2)**

*Prerequisite:* DAI 321, 430, or equivalent, or consent of instructor. Computer Integrated Manufacturing system; Manufacturing Resource Planning (MRP), integration methodologies, flexible manufacturing systems, MAP/TOP, and group technology.

**470 Portfolio Preparation (1)**

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.

**475 Topics in Design and Industry (1-3)**

*Topic and units to be specified in Class Schedule.* May be repeated when topics vary.

**505 Research and Development Laboratory (3)**

*Prerequisites:* completion of all core courses. Culminating DAI problem solving experience. Students are responsible for initiating an industrial research and development project and conducting all phases of design development from initial research to prototyping and cost analysis.

**510 Industrial Quality Control (2)**

*Prerequisites:* BA 212 or MATH 124, and BA 110 or MATH 110. Applications at the supervisory level of the overall quality plan for manufacturing. Quality assurance, testing, shop and field inspection techniques, material review, source inspection, vendor surveillance, and quality audit.

**521 Industrial Computer-Aided Design (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.

**524 Presentations and Exhibits (3)**

*Prerequisite:* 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.

**525 Graphic Design III (3)**

*Prerequisite:* DAI 425 or consent of instructor. Application of design principles in the solution of complex design projects. Laboratory.

**526 Graphic Reproduction Technology III (3)**

*Prerequisite:* DAI 326 or consent of instructor. Print-based media: advanced photomechanics for photolithography and development of advanced capabilities in graphics technology. Laboratory. Extra fee required.

**527 Digital Media III: Web Design (3)**

*Prerequisites:* HTML, DAI 323, DAI 325, or consent of instructor. Web site building focusing on navigation design, interface, and information architecture.

**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.

**533 Microcomputers and Microprocessors (3)**

*Prerequisites:* DAI 333 and DAI 532 or consent of instructor. Microcomputer hardware systems, their functions and operations. Overview of microcomputers and microprocessors, peripheral devices, hardware technology, software program and interfacing. Laboratory.

**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.

**576 Supervised Experience (3)**

*Prerequisite:* senior 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 10 units.

**627 Digital Media IV: Advanced Projects (3)**

*Prerequisites:* upper division standing, DAI 327, or consent of instructor. Projects for any digital media delivery technology. Projects involve research, design documentation, regular progress presentations, and follow production schedules.

**Graduate Courses****700 Introduction to Graduate Study (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.

**705 Seminar in Industrial Technology (3)**

*Prerequisite:* DAI 700 or equivalent. Current curricular philosophies, programs, problems, and issues in industrial technology.

**755 Design Seminar in Project Management (3)**

*Prerequisites:* DAI 700, DAI 805, or consent of instructor. Students create a production using their project management skills throughout the experience.

**800 Seminar in Design (3)**

*Prerequisite:* DAI 700 or equivalent. Design theory and practice. Special techniques in individual and group approaches to problem solving.

**805 Selected Problems in Design (3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**810 Advanced Research Seminar (3)**

*Prerequisites:* DAI 700 and consent of instructor. Tools of research; review of the literature; analysis, evaluation, and design of proposal.

**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.

**855 Case Study Review (3)**

*Prerequisite:* graduate status or consent of instructor. Commercial world of design practices. Aspects of conceptualization, construction, production, promotion, presentation, and management.

**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.

**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.

**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.

**DIETETICS AND FOOD MANAGEMENT***Undergraduate Courses***152 Computer Applications in Foodservice Management and Nutrition (3)**

Computer systems and software for problem solving in foodservice system management, menu planning and cost control, nutrition analysis of menus and diets. Classwork, 2 units; laboratory, 1 unit.

**253 Nutrition in Health and Disease (3) F,S**

*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.

**352 Foods, Production, and Service (3) [GE]**

*Prerequisite:* ENG 214. For course description, see CFS 352. (Also offered as HM 352. May not be repeated under alternate prefix.)

**353 Foodservice Systems Management (3)**

*Prerequisite:* upper division standing. For course description, see CFS 353. (Also offered as HM 353.)

**357 Experimental Food Study (4)**

*Prerequisites:* DFM 352, CHEM 130, CHEM 215, and MATH 124. 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.

**450 Advanced Nutrition (3) S**

*Prerequisites:* BIOL 610/611, CHEM 349, DFM 152/253, and MATH 124. Research in human nutrient requirements and metabolic interrelationships of proteins, carbohydrates, lipids, vitamins, minerals, and non-nutritive substances found in foods.

**451 Nutritional Assessment in the Community (3)**

*Prerequisite:* DFM 450 (may be taken concurrently). 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.

**452 Foodservice Layout and Design (3) F**

*Prerequisites:* DFM 250, 353, and 458. Structural and environmental principles in the design of food production facilities from receiving to dining services. Selection and placement of foodservice equipment. Classwork, 2 units; laboratory, 1 unit.

**458 Management of Quantity Food Purchasing and Production (3) F**

*Prerequisites:* DFM 152, 250, and 353. 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.

**484 Clinical Dietetics (3)**

*Prerequisites:* DFM 253, CHEM 349, BIOL 610/611. 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.

**485 Seminar in Clinical Nutrition and Patient Care (3) S**

*Prerequisites:* BIOL 610 and 611, CHEM 349, DFM 152, 253, 484, 450 or concurrent enrollment. 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.

**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.

**557 Restaurant and Catering Management (3)**

*Prerequisites:* DFM 352, 353. For course description, see CFS 557. (Also offered as HM 557. May not be repeated under alternate prefix.)

**653 Nutrition Education Experiences for Young Children (1)**

*Prerequisite:* upper division standing. Nutrition education for children. Influences affecting development of positive food habits. Learning activities for integration of food concepts with regular classroom activities. Preschool to age 12.

**655 Professional Communication in Dietetics (3)**

*Prerequisites:* completion of foundation requirements and passing score on JEPET or ENG 411/414; senior standing. 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***751 Seminar in Nutritional Assessment of Older Adults (2)**

*Prerequisite:* admission to the certificate program/dietetic internship. Nutritional factors which aggravate, modify, or retard the aging process. Nutritional assessment of older adults in home, community, and custodial care settings. Screening initiative and minimal data sets (MDS). Support for dementia, osteoporosis, and hospice.

**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.

**758 Seminar in Foodservice Systems in Facilities for Older Adults (3)**

*Prerequisite:* Baccalaureate degree in dietetics and admission to certificate program/dietetic internship.



Organization and administration of quantity food-service 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.

### 785 Nutritional Care for Older Adults (3)

*Prerequisites:* baccalaureate degree and admission to the certificate program. Dietary components of patient/client care plans in acute, skilled, and residential care settings for older adults. Planning and analyzing care strategies in congregate and home-delivered meals.

### 881 Internship (7-8)

*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 18 units. CR/NC grading only.

## ECONOMICS

### Undergraduate Courses

#### 100 Introduction to Macroeconomic Analysis (3) [GE]

F,S

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.

#### 101 Introduction to Microeconomic Analysis (3) [GE]

F,S

*Prerequisite:* ECON 100. Basic analysis of prices and markets; consumer behavior; behavior of the firm; factor markets.

#### 300 Intermediate Macroeconomic Theory (3)

*Prerequisites:* ECON 100, 101, and MATH 110 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.

#### 301 Intermediate Microeconomic Theory (3)

*Prerequisites:* ECON 100, 101, and MATH 110 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.

#### 305 Economic Analysis for Non-majors (3) [GE]

Macro- and microeconomic theories and their applications to the problems of resource allocation, employment, inflation, economic growth; competition and monopoly. Not open to students who have completed ECON 100 and 101.

#### 310 Mathematics for Economists (3)

*Prerequisite:* completion of General Education quantitative reasoning requirement. Mathematical tools

employed by the economist: set theory, relations and functions, vectors and matrices, differential calculus. Classwork, 2 units; laboratory, 1 unit.

#### 311 Statistical Methods and Interpretation I (3)

F,S

*Prerequisite:* MATH 110 or equivalent. Statistical methods essential in solving economic and business problems under uncertainty, including probability theory, methods of statistical description and inference, sampling theory, estimation, hypothesis testing, and statistical software applications. Classwork, 2 units; laboratory, 1 unit.

#### 312 Statistical Method and Interpretation II (3)

F,S

*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.

#### 325 Economic Modeling and Computer Simulation (3)

*Prerequisites:* ECON 100, ECON 101, ECON 310, ECON 311, or equivalents. Quantitative modeling of economic systems. Application of computer methods to economic modeling and simulation. Computer software with specific applications in economic modeling, time series, regression, and simulation methods. Classwork, 2 unit; laboratory, 1 units.

#### 400 Economic and Social History of the United States (3) [US]

F,S

*Prerequisite:* ECON 100 or 305. Economic and social development of the United States. (Page reference for U.S. history requirement can be found in the Index.)

#### 404 Economic History of Latin America Since Independence (3)

*Prerequisites:* ECON 100 and 101. Examines the development of Latin American economies from independence to the present. Applies economic theory to analyze changes in the Latin American economies. Issues include agricultural development, industrial development, international trade, stabilization policies, debt, and inequality.

#### 425 Economic Geography (4)

For course description, see GEOG 425. Classwork, 3 units; fieldwork, 1 unit.

#### 474 History of Labor in the United States (3) S

For course description, see HIST 474. (Also offered as LABR 474.)

#### 500 Money and Banking (3)

*Prerequisite:* ECON 300 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.

#### 501 Money and Capital Markets (3)

*Prerequisite:* 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.

#### 505 Public Finance (3)

*Prerequisites:* ECON 100, 101, or equivalents. 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.

#### 508 Economics and Public Policy (3)

*Prerequisite:* ECON 101. Public policy as a problem in institutional choice. Topics include assessing transactions costs, the economics of non-profits, rent seeking, principle agent analysis, and privatization. A service learning module course.

#### 510 Labor Economics (3)

F,S

*Prerequisite:* consent of instructor. Wage and employment theory; legislation and control of industrial conflict.

#### 511 Collective Bargaining (3)

F,S

Collective bargaining, legislation; case studies in labor law. (Also offered as LABR 511.)

#### 512 Economics of Poverty and Discrimination (3)

S

*Prerequisites:* ECON 100 and ECON 101 or equivalents. 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.

#### 515 Economics of Crime and Justice (3)

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.

#### 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.

#### 520 Industrial Organization (3)

*Prerequisites:* ECON 100 and 101 or equivalents. Market structure, conduct and performance of selected industries; problems of property rights, law, contract, organization, ownership, and control; problems of product quality, advertising, and consumer sovereignty.

#### 530 Political Economy of the San Francisco Bay Area (3)

*Prerequisite:* upper division standing. Economic, social, political, and institutional analysis of the fifth largest and second richest metropolitan area in the U.S. Historic overview, institutional highlights, industries and occupations, demographics, migration

and immigration, regional economic development, infrastructure, and educational policy.

### 535 Urban Economics (3) [GE]

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. (Also offered as URBS 535.)

### 550 Economics of Energy and the Environment (3)

The economics of resource utilization and conservation; the economics of energy, including petroleum; recreation area economics; economic growth and population growth analysis; analysis of the economic impact of pollution; income redistribution effects of environmental change; the environment and price theory.

### 600 International Economics (3)

*Prerequisites:* ECON 100 and 101 or equivalents. Theoretical, historical, and institutional aspects of international trade, investment, and the international monetary system. Focuses on current issues such as multinational corporations, international cartels, and the evolving structure of the world economy.

### 601 Applied Microeconomics (3)

*Prerequisite:* ECON 301. Intertemporal microeconomic theory applied to problems of investment and capital budgeting; application of microeconomic theory to policy problems in private and public sector; extensive use of microcomputers in development of problem solutions.

### 605 History of Economic Thought (3)

*Prerequisite:* ECON 301. Development of economic thought. Reports and discussions based on the works of classical, neoclassical, and contemporary economists.

### 615 Mathematical Economics (3)

*Prerequisite:* MATH 226 or equivalent. Optimization, equilibrium analysis, and decision-making. Classwork, 2 units; laboratory, 1 unit.

### 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.

### 630 Introduction to Econometrics (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.

### 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, inter-

national trade and multinationalization production, integration of financial markets. (Also offered as I R 635. May not be repeated under alternate prefix.)

### 690 Senior Seminar: Economic Inquiry and Analysis (3)

*Prerequisite:* senior standing in economics or 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.

### 699 Special Study (1-3) F,S

*Prerequisites:* consent of instructor, major adviser, and department chair. Supervised study of a particular problem selected by the student.

### Graduate Courses

### 700 Seminar: Macroeconomic Theory I (3) F,S

*Prerequisites:* ECON 300 and 301. National income and employment determination: income distribution; wages, prices and economic growth; government policy.

### 701 Seminar: Microeconomic Theory I (3) F,S

*Prerequisites:* ECON 300 and 301. Behavior of firms and households; determination of prices and resource allocation in a decentralized economy.

### 710 Seminar: Macroeconomic Theory II (3)

Contemporary macroeconomic topics: comparative-state analysis; neoclassical and endogenous growth theory; advanced computational techniques; research in business cycle dynamics; open economy macroeconomics; analysis of modern macroeconomic schools of thought.

### 711 Seminar: Microeconomic Theory II (3)

*Prerequisites:* ECON 701 and classified graduate status in economics. Theory of welfare economics within general equilibrium framework, theory of externalities, theory of public goods, risk and uncertainty, inter-temporal choice.

### 720 Seminar: Applied Quantitative Techniques (3)

*Prerequisite:* consent of instructor. Statistical analysis in economics. Individual research.

### 730 Seminar: Econometric Methods (3) F

*Prerequisite:* ECON 720 or consent of instructor. Application of statistical methods to mathematical economic models. Econometric research.

### 800 Applications of Monetary Analysis (3) S

*Prerequisite:* ECON 300 and 301. Modeling in macro and money; monetary and real sector interactions; finance and policies, growth and stabilization. Portfolio theory, risk, models of bank behavior, level and structure of interest rates; Federal Reserve System and government regulation of financial intermediaries.

### 860 Seminar: International Economics (3)

*Prerequisites:* ECON 300 and 301 or equivalent. Analysis of the major theoretical and empirical issues in the international economy including commercial

policy, foreign exchange regimes, and trade-induced growth. Role of the private and public international institutions.

### 865 Applied Analysis of Trade and Development (3)

Economic problems of developing countries analyzed both from a theoretical and case study approach; modeling and empirical evidence. Money, finance, capital and economic development in open economies. Exchange rate problems, inflation, government policy; LDC trade relations with industrialized nations.

### 898 Master's Thesis (6) F,S

*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.

### 899 Special Study (1-3) F,S

Open to graduate students who have demonstrated ability to do independent work. Enrollment by petition to department.

## EDUCATION

### Undergraduate Courses

### 333 Exploring Teaching as a Career (1)

*Prerequisite:* ENG 114. Exploration of teaching profession as a career, learn about various settings for teaching, talents for teaching, and job prospects. Must have E-mail address; class meets on Internet only. Open to all students.

### 600 Foundations of Education: Diverse Sources of Theory and Practice (3)

*Prerequisites:* upper division standing and consent of instructor. World sources of educational theory and practice; historical development of U.S. education; recent and current educational theories and practices prevalent in the U.S.

### 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. (Also offered as BSS 603; may not be repeated under alternative prefix.)

### 614 Elements of Writing in Education (3)

*Prerequisite:* GET and classified graduate status in the College of Education. For students not meeting minimum written English proficiency requirement. Integrates basic writing skills appropriate to education. May not be used for master's degree GAP requirements. CR/NC grading only.

### 620 Contemporary Issues in California Education (3)

*Prerequisites:* upper division standing and consent of instructor. Current educational issues in California:

bilingual education, phonics/whole language, gender, race, class size, special education, early learning, technology integration, middle level education, and curricular integration; analysis of how public opinion, legislative policy, and educational theory and practice interact.

#### 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

#### 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. (Also offered as BSS 703. May not be repeated for credit under alternate prefix.)

#### 780 Middle School (3)

*Must be taken concurrently with EDUC 781 and 782.* Orientation to the middle school. The role of the middle school in the history of public education and school reform. Instructional programs and structures of the middle school.

#### 782 Middle Level I (3)

*Must be taken concurrently with EDUC 780 and 781.* Focus on typical and atypical early adolescent development. Special emphasis given to issues of communicative competence, social skills, family relationships, gender roles, peer group functions, moral development, and self concept and identity.

#### 784 Language Arts/Reading at the Middle Level (3)

*Prerequisites:* EDUC 780, 781, and 782. *Must be taken concurrently with EDUC 783.* Focus on the teaching of language arts and reading to typical and atypical middle level learners.

#### 785 Student Teaching Workshop (1)

*Prerequisites:* EDUC 780, 781, 782, 783, and 784. *Must be taken concurrently with SPED 730 and EDUC 682.* Discussion and reflection on student teaching activities. Problem orientated course centering on classroom experiences and needs.

#### 786 Advisory Roles, Diversity, and Collaboration (3)

*Prerequisites:* EDUC 780, EDUC 781, EDUC 782, EDUC 783, and EDUC 784. Focus on skills needed for serving in an advisory role, for working with diverse learners, and for collaborating with school personnel and parents.

#### 787 Cultural and Social Foundations of Secondary Education (3)

Introduces students to theory and practice of multi-lingual, cross-cultural (CLAD), socioeconomic, and gender diversity in secondary education (high school, 9-12 grades) school programs. Fulfills the requirement for S ED 785 in the secondary education program. Focuses on classroom management strategies.

#### 788 Cultural and Social Foundations of Elementary Education (3)

Introduces students to theory and practice of multi-lingual, cross-cultural, socioeconomic, and gender diversity in elementary education K-8 classrooms. Fulfills the requirement for E ED 678 in the multiple subjects program. Also, focuses on classroom management strategies and cross-cultural language and academic development (CLAD).

#### 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. (Also offered as BSS 803.)

#### 805 Sexuality Education and Policy (3)

*Prerequisite:* graduate status or consent of instructor. For course description, see HMSX 805. (May not be repeated under alternate prefix.)

#### Joint Doctoral Courses

#### 900 Issues in Urban Educational Leadership (1)

*Prerequisite:* admission to joint doctoral program or consent of instructor. Introduction to issues faced by district and county school leaders in contemporary urban settings. Identification of initial themes to be addressed for research and practice in joint doctoral study.

#### 901 Conceptions of Urban District Leadership (1)

*Prerequisite:* admission to joint doctoral program or consent of instructor. Continuation of focus on issues faced by district and county school leaders in contemporary urban settings. Synopsis of major topics addressed during initial summer doctoral session.

#### 960 Vision, Purposes, and Values in Education (3)

*Prerequisite:* admission to joint doctoral program or consent of instructor. Development of personal vision, beliefs, and values in the context of urban educational leadership research literature. Practices and conflicting purposes of public education are addressed in the context of evolving value schemas.

#### 969 Urban School Reform (3)

*Prerequisite:* admission to joint doctoral program or consent of instructor. The place of school reform in the institutional structure of schooling and its relationship to wider political relations and activity. A range of reform agents and practices are examined, with particular attention to race and class.

#### 983 Urban Education (3)

*Prerequisite:* admission to joint doctoral program or consent of instructor. The relationship between macroeconomic and political trends and public education in inner city schools; impacts on dropout rates, school climate, teacher morale, and academic achievement. Examination and evaluation of current proposals for reform of urban schools is included.

### EDUCATIONAL ADMINISTRATION

#### Graduate Courses

#### 713 Administrative Processes (3) F,S

Leadership of faculty groups, problem analysis, problem solution, decision-making, communication in school settings.

#### 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.

#### 723 School Administration (3)

Various organizational and managerial roles of school administrators; the examination of a wide range of responsibilities. Case analysis of problems.

#### 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.

#### 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.

#### 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.

#### 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.

#### 774 Change Processes and Education (3)

Alternative models of change, how and why change is necessary as an organizational process: underlying

ing conflicts and tasks of leaders in restructuring alternative teaching and learning environments. Initiatives and models used to examine change issues in school settings.

#### 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.

#### 822 Practicum: Leadership in Supervision and Curriculum Development (3) F,S

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.

#### 823 Practicum: Evaluation, Research, and Planning (3) F,S

*Prerequisite:* EDAD 743. Organization of evaluation programs, staffing, interpreting data to public and budgetary considerations. Application and testing in classroom and field assignment situations.

#### 824 Practicum: Personnel Management (3)

Planning, conflict resolution, and selected personnel procedures. Application and testing the field under the supervision of specialists.

#### 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.

#### 851 Curricular Policy in Multicultural Contexts (3)

Recent societal and cultural changes concerning diversity and responsibilities for learners' development in multicultural society. Technological changes and changing student and community characteristics. Strategies for infusion of multiculturalism into curricula.

#### 852 Policy Analysis for Educational Policy Development (3)

Achievement of educational goals by initiation or implementation of public policy. Developing cogent skills in analyzing, evaluating, and communicating issues/problems/policies which impact education. Strategies for formulating educational policies.

#### 855 Ethics and Administrative Leadership for Educational Change (3)

Skills in ethical reasoning, reformulating views that are thoroughly considered: to think carefully, sensitively, and systematically about ethical dimensions of socio-cultural context of schooling and implications for educational practice.

#### 859 Emerging Complex Organizations in Multicultural Environments (3)

Alternative theories of organization with applications to the structuring of schooling in multicultural settings. Traditional and emerging roles played by educational personnel. Implications of socio-cultural diversity for organizing effective learning/teaching environments.

#### 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.

#### 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.

#### 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.

#### 895 Field Study (3)

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

#### 898 Master's Thesis (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. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

#### 899 Special Study (1-3) F,S

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.

### ELEMENTARY EDUCATION

#### Undergraduate Courses

#### 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.

#### 306 Understanding and Working with Children and Families (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.

#### 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.

#### 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.

#### 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.

#### 605 Supervised Fieldwork in a Preschool (3)

*Prerequisite:* EED 600 (may be taken concurrently) or a class in childhood development. Supervised field experience in an infant, preschool, or school-age daycare program. Techniques of observation used to develop individualized learning experiences based on assessed developmental needs.

#### 607 Preschool Administration: Developing Team Relationships (3)

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.

#### 608 Supervised Fieldwork: Preschool Curriculum Development (3)

*Prerequisite:* EED 602 (may be taken concurrently). Field experience in an infant, toddler, preschool, or school-age daycare setting. Implementation of curriculum.

#### 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.

**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.

**612 Development: The School-aged Child (3)**

*Prerequisite: upper division standing.* Examination of theories of child development at 5-8 age level related to their implications for conducting a program.

**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.

**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.

**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.

**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.

**617 Motor Development: Play and Creative Movement for Children (3)**

*Prerequisite: E ED 602 or equivalent.* Motor development through design of play and creative movement curriculum and environments for children aged 0-11 years. Functions of play, creativity, and sensory experience. Significance of cultural variation. Focus on early childhood years.

**645 Directed Experiences with Children (1) A**

Individually guided observation and participation experiences with children in elementary school. Registration by recommendation of adviser and consent of instructor. May be repeated for a total of 5 units. CR/NC grading only.

**645 Directed Experiences with Children (2) A**

Individually guided observation and participation experiences with children in elementary school. Registration by recommendation of adviser and consent of instructor. May be repeated for a total of 5 units. CR/NC grading only.

**645 Directed Experiences with Children (3) A**

Individually guided observation and participation experiences with children in elementary school.

Registration by recommendation of adviser and consent of instructor. May be repeated for a total of 5 units. CR/NC grading only.

**646 Seminar: Classroom Observation (1-3)**

*Prerequisite: enrollment in Liberal Studies waiver program.* Provides an opportunity to discuss observations: teaching strategies, working with students with limited English, content of the curriculum, and classroom organization. May be repeated for a total of 5 units.

**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.

**678 Cultural and Linguistic Diversity in the Elementary Classroom (3)**

*Prerequisite: upper division standing or consent of instructor.* Cross-cultural understandings and teaching strategies. Language, culture, socio-economic status, and gender in relation to teaching.

**679 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.

**681 Curriculum: Elementary Social Studies (3)**

*Prerequisite: admission to Multiple Subject Credential program.* Planning and instruction common to all subject matter. Emphasis on social studies and teaching in culturally and linguistically diverse school settings. Guided experience in schools.

**682 Teaching Reading/Language Arts (3)**

*Prerequisite: admission to Multiple Subjects Credential program.* Methods and materials in teaching reading/language arts to linguistically and culturally diverse students. Developmental strategies for second language learners; classroom organization; assessment; guided experiences in schools.

**684 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.

**685 Student Teaching: Self-contained Classroom (1-4,6,9,12)**

*Prerequisite: consent of department.* Teaching experience in selected schools under guidance of resident teacher with direct supervision by university instructor. Includes performance based objectives. May be repeated for a total of 12 units on advisement. CR/NC grading only.

**686 Student Teaching Seminar: Self-contained Classroom (1-3)**

*Must be taken concurrently with E ED 685.* Understanding the multiple roles of the teacher: classroom instruction, professional responsibilities, community relationships. Guiding and evaluating learning opportunities. Performance based objectives. CR/NC grading only.

**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.

**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.

**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****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).

**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. (Also offered as S ED 701. May not be repeated under alternate prefix.)

**702 Creative Experiences with Preschool Children (3)**

*Prerequisite: admission to Multiple Subject Credential program.* Creativity in the curriculum for young children. Through utilization of art, music, creative dramatics, sciences, etc.

**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.

**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: multicultural, home influences, and the exceptional child.

**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.

**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.

**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.

**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.

**720 Research and Practice in Language and Literacy Education (3)<sup>1</sup>**

*Prerequisite: basic reading course.* Teaching language and literacy to diverse learners; instructional strategies to motivate literature study, writing, recreational reading; second language literacy instruction; classroom organization; assessment.

**723 Inservice Leadership in Reading (2)<sup>1</sup>**

*Prerequisites: consent of adviser and course instructor.* Development of professional growth in reading; determining staff needs; designing programs of inservice education; problems of consultation and program development, aiding in development of curriculum and improvement of instruction. (Also offered as S ED 723.)

**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; implica-

tions of research for culturally responsive teaching and classroom organization.

**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.

**730 Teaching Mathematics, Science, and Technology in the Elementary School (7)**

*Prerequisite: admission to Multiple Subjects Credential program.* Integrating mathematics, science, and technology in multicultural elementary school classrooms. Theory and methods of development of mathematical understanding and scientific literacy. Use of technology as tool for facilitating knowledge growth.

**732 Teaching Reading, Language Arts, and Social Studies in the Elementary School (3,4,6)**

*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.

**749 Second Language Acquisition in the Elementary School (3)**

For course description, see IS ED 749.

**Seminars in Elementary School Subjects**

The 760-level seminars emphasize five major strands that are initially developed on a generic level through EED 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.*

**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.

**761 School Mathematics: Problem Solving (3)**

*Prerequisite: consent of instructor.* Curriculum development in mathematics. Problem solving strategies as a unifying theme for content selection. (Also offered as S ED 761. May not be repeated under alternate prefix.)

**763 Integrating Language, Literacy, and Technology in Elementary School Curriculum (3)**

*Prerequisite: consent of Elementary Education adviser or instructor.* Curriculum development in reading methods, materials, and curriculum sequence.

**764 Elementary School Social Studies (3)**

*Prerequisite: consent of Elementary Education adviser or instructor.* Curriculum development in social studies methods, materials, and curriculum sequence.

**765 Elementary School Science (3)**

*Prerequisite: consent of Elementary Education adviser or instructor.* Curriculum development in science methods, materials, and curriculum sequence.

**767 Elementary School Creative Arts (3)**

*Prerequisite: consent of Elementary Education adviser or instructor.* Curriculum development in creative arts methods, materials, and curriculum sequence.

**768 Foundations of Bilingual Education for the Elementary Classroom (3)**

*Prerequisite: enrollment in bilingual multiple subject credential program.* Seminar in the foundations of Cantonese and Spanish bilingual education in the elementary classroom in the U.S.

**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.

**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.

**782 Literacy Development in Elementary School (3)**

*Prerequisite: admission to Multiple Subjects Credential program. Must be taken concurrently with E ED 682.* Research and theory on literacy development in native and non-native languages. Teaching skills in meaningful context; assessment; early intervention.

**783 Analyzing Child Behavior in a Culturally and Linguistically Diverse School Setting (3)**

*Prerequisite: admission to Multiple Subjects Credential program.* Cognitive, language, social-emotional, and self-concept development of children in multicultural/multilingual society, as they are affected by family, peer, culture, school, community, etc. Guided experience in schools.

<sup>1</sup>Highly recommended as initial courses to be taken in fulfilling the 30-unit clear credential requirement.

**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. (Also offered as S ED 796. May not be repeated under alternate prefix.)

**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.

**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.

**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.

**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.

**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. (Also offered as S ED 807. May not be repeated under alternate prefix.)

**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.

**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.

**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. (Also offered as S ED 856. May not be repeated under alternate prefix.)

**866 The Early Adolescent in School (3)**

*Prerequisite:* admission to Middle School Certificate Program or consent of instructor and adviser. Learning theory and social behavior; emotional and cognitive development of the early adolescent as pertaining to middle school teaching and learning. (Also offered as S ED 866.)

**868 Gender, Identity, and Curriculum (3)**

*Prerequisite:* multiple subject credential or consent of instructor. Perspectives on gender and cultural influences. Theory and practice that supports access and equity in elementary curriculum and instruction.

**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.

**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.

**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.

**890 Seminar on Research in Multiple Subject Classrooms (3)**

*Prerequisite:* ISED 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.

**895 Field Study (3) F,S**

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.

**898 Master's Thesis (3) F,S**

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.

**899 Special Study (1-3) F,S**

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***101 Concepts of Engineering (2)**

*Prerequisites:* high school algebra and trigonometry. Principles of engineering graphics and their applications in engineering communication. Introduction to a major computer-aided design and drafting package (CAD), in addition to Matlab and Excel software. Professional practices in various fields of engineering. Classwork, 1 unit; laboratory, 1 unit.

**102 Statics (3) F,S**

*Prerequisites:* MATH 227, PHYS 220. Vector treatment of force systems acting on particles and rigid bodies. Two- and three-dimensional problems. Centroids and moments of inertia. Shear and moment diagrams for beams. Fluid statics. Equilibrium of internal stresses. Applications to structural and mechanical problems.

**103 Introduction to Computers (1) F,S**

*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.

**111 Engineering Orientation (3) F**

*Prerequisite:* enrollment in the minority or women engineering program or consent of instructor. Designed to strengthen students' communication, problem-solving, leadership, and study skills; motivates students through exposure to opportunities and rewards of careers in engineering. No credit towards Engineering degree.

**200 Materials of Engineering (3) F,S**

*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.

**201 Dynamics (3) F,S**

*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.

**205 Electric Circuits (3)****F,S**

*Prerequisite:* PHYS 230. Must be taken concurrently with MATH 245 and ENGR 206. 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.

**206 Circuits and Instrumentation (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.

**210 Introduction to Environmental Engineering (3) [GE]**

*Prerequisites:* high school chemistry, physics, and mathematics. Water resource systems, wastewater, and hazardous waste systems. Fundamentals of chemistry, processes, water quality, treatment processes, wastewater characterization, air pollution fundamentals, hazardous waste management, ground water pollution, solid waste management, and brownfields.

**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.

**230 Evolution of Science and Technology (3)**

Evolution of science and technology from ancient times to the present. Study of selected ancient scientific endeavors and methods of inquiry, the Industrial Revolution, and major technical advances in recent times. The role of technology as a catalyst for social change. Government policy and social change.

**271 Introduction to Oracle: SQL and PL/SQL Using Procedure Builder (3)**

*Prerequisites:* CSC 210 with grade of C or better. For course description, see CSC 271. (Also offered as ISYS 271. May not be repeated under alternate prefix.)

**290 Modular Elective (1)**

*Prerequisites:* sophomore standing and required by instructor. Topic to be specified in Class Schedule. May be repeated for a total of 3 units when topics vary.

**300 Engineering Experimentation (3)****F,S**

*Prerequisites:* ENGR 103, 200, 206, and PHYS 240. 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.

**301 Electronics Laboratory (1)****F,S**

*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 op amps, diodes, BJTs, and FETs. Diode circuits, transistor amplifiers, simple logic gates. Laboratory. Extra fee required.

**302 Experimental Analysis (1)****F,S**

*Prerequisites:* ENGR 300, 309, and 304 (ENGR 304 may be taken concurrently). Experimental investigation and analysis of engineering systems: structural elements, fluid devices, and thermal systems. Use of computers for data acquisition. Laboratory. Extra fee required.

**303 Engineering Thermodynamics (3)****F,S**

*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; heat transfer mechanisms.

**304 Mechanics of Fluids (3)****F,S**

*Prerequisites:* ENGR 201 and 303. Statics and dynamics of incompressible fluids, dimensional analysis, and similitude; fluid friction, laminar, and turbulent flow in pipes; forces on submerged structures; fluid measurements.

**305 Linear Systems Analysis (3)****F,S**

*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.

**306 Electromechanical Systems (3)****F,S**

*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.

**308 Computer Methods in Engineering (3)****F,S**

*Prerequisites:* ENGR 103, ENGR 201 or 305, and MATH 245. Methods of numerical analysis commonly used in engineering. Design and development of computer programs.

**309 Mechanics of Solids (3)****F,S**

*Prerequisites:* ENGR 102 and 200; ENGR 200 may be taken concurrently. Stress and deformation analysis for members under axial load, torsion, flexure, and combined forces; columns, strain energy. Elastic and ultimate resistance of materials.

**323 Structural Analysis (3)****S**

*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.

**335 Surveying and Highway Design (3)****F**

*Prerequisites:* ENGR 101, 103, 200; MATH 228. 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. Classwork, 2 units; laboratory, 1 unit.

**350 Introduction to Engineering Electromagnetics (3)****F,S**

*Prerequisites:* MATH 245 and PHYS 240. Transmission lines. Static electric and magnetic fields. Boundary value problems. Steady electric currents and relationship between field and circuit theory. Maxwell's equations. Electromagnetic waves, energy and power flow.

**353 Electronics (3)****F,S**

*Prerequisites:* grades of C or better in ENGR 205 and ENGR 206. Op amps: theory, applications, practical limitations. Diode characteristics, models, applications. BJT and FET characteristics, models, biasing, amplifier and logic gate design. Design project, PSpice simulation.

**356 Basic Computer Architecture (3)****F,S**

*Prerequisite:* ENGR 205 or CSC 210 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.

**357 Basic Digital Laboratory (1)****F,S**

*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.

**364 Materials and Manufacturing Processes (3)****F**

*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.

**378 Digital Systems Design (3)****S**

*Prerequisite:* grade of C or better in ENGR 356. 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.

**393 Cooperative Education Special Studies (1)**

*Prerequisites:* 2.5 GPA and consent of instructor. Career development, occupational experience, community service, and educational subsidy when available.

**410 Process Instrumentation and Control (3)****S**

*Prerequisites:* ENGR 300 and 305. Principles of control and instrumentation. Control of level, flow, temperature, and pressure. Actuators and transducers. Process modeling.



**411 Instrumentation and Process Control Laboratory (1) S**

*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.

**415 Mechatronics (3) S**

*Prerequisites:* ENGR 201 and 305. Three-dimensional kinematics and dynamics. Essential electrical and computational concepts. Sensors and CCD vision systems. Mechanical and electrical actuators. Trajectory planning and control.

**416 Mechatronics Laboratory (1) S**

*Must be taken concurrently with ENGR 415.* Experiments connected with mechatronic concepts. Programming robot tasks. Comparison and analysis of human and robot motion. Optical encoders, motor selection and tuning.

**425 Reinforced Concrete Structures (3) S**

*Prerequisite:* ENGR 323. 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.

**426 Steel Structures (3) F**

*Prerequisite:* ENGR 323. 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.

**428 Applied Stress Analysis (3) S**

*Prerequisites:* ENGR 302 and 309. Solutions of practical stress analysis problems related to mechanical and structural design. Experimental and computer-based stress analysis techniques. Classwork, 2 units; laboratory, 1 unit.

**429 Construction Management (3) S**

*Prerequisite:* ENGR 309. Construction engineering and management; professional practice and ethics; planning and scheduling, network diagrams, scheduling computations, resource management, computer applications; cost estimating; bidding and contracting.

**430 Soil Mechanics (3) S**

*Prerequisite:* ENGR 309. Soil as an engineering material: identification, physical and mechanical properties, concepts of bearing capacity, slope stability and lateral earth pressures and their application to foundation design. Types of foundations. Classwork, 2 units; laboratory, 1 unit.

**431 Foundation Engineering (3) F**

*Prerequisite:* ENGR 430. Analysis and design of walls and deep and shallow foundations. Settlement analysis, stability of excavations. Slope stability. Design of slopes and embankments.

**432 Finite Element Methods in Structural and Continuum Mechanics (3) F**

*Prerequisites:* ENGR 308 and 309. Fundamental concepts of the finite element method for one- and two-dimensional elements. Applications in the ar-

eas of structural analysis, plane stress and plane strain, and two-dimensional groundwater flow. Computer implementation of finite element techniques.

**434 Principles of Environmental Engineering (3) F**

*Prerequisites:* CHEM 111 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.

**435 Environmental Engineering Design (3)**

*Prerequisite:* ENGR 434. Design concepts for environmental engineering systems relating to municipal and industrial wastewater treatment, disposal, and reuse. Laboratory includes environmental analysis techniques to determine design parameters. Classwork, 2 units; laboratory, 1 unit.

**439 Construction Engineering (3)**

*Prerequisite:* ENGR 309. 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.

**442 Operational Amplifier Systems Design (3) F**

*Prerequisites:* ENGR 305 and ENGR 353 with grades 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. Sine-wave oscillators, multivibrators, timers.

**445 Analog Integrated Circuit Design (4) F**

*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.

**446 Control Systems Laboratory (1) F**

*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.

**447 Control Systems (3) F**

*Prerequisite:* ENGR 305. 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.

**448 Electrical Power Systems (3) F**

*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.

**449 Communication Systems (3) F,S**

*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.

**450 Electromagnetic Waves (3) F**

*Prerequisites:* ENGR 350. Propagation, reflection, refraction and diffraction of plane electromagnetic waves. Guided electromagnetic waves in transmission lines and waveguides. Analysis and design of antennas and microwave systems.

**451 Digital Signal Processing (4) F,S**

*Prerequisites:* CSC 210 and grade of C or better in ENGR 305. 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.

**452 Communication Systems Laboratory (1) S**

*Prerequisites:* ENGR 449 and 450 (may be taken concurrently). RF and microwave communication systems. Oscillators and amplifiers. Amplitude and angular modulation and demodulation. Transmission lines, waveguides, resonant cavities, and antennas.

**453 Digital Integrated Circuit Design (4) S**

*Prerequisites:* grades of C or better in ENGR 301, 353, and 356. 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.

**455 Power Electronics (4) F**

*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.

**456 Computer Systems (3) F,S**

*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.

**457 Electromagnetic Compatibility (3) S**

*Prerequisite:* ENGR 350. Electromagnetic compatibility (EMC) requirements and standards. Non-ideal behavior components. Signal spectra. Radiated emission and radiated susceptibility. Conducted emission and susceptibility. Crosstalk, shielding and electrostatic discharge. EMC system design.

**458 Industrial and Commercial Power Systems (3) S**

*Prerequisite:* ENGR 306 with a grade of C or better. Electrical power system design for industrial and commercial facilities. Available protective devices. Commercial programs to conduct load flow and voltage drop analysis, short circuit current calculation, and coordination study. Power quality issues. Causes and mitigation techniques for power quality problems.

**459 Power Engineering Laboratory (1) S**

*Prerequisite:* ENGR 306 with a grade of C or better. Advanced instrumentation to monitor electrical power systems of commercial and industrial facilities. Computer experiments, instrumentation, and equipment. Programmable logic controller. Motion control applications and experiments. Laboratory.

**461 Mechanical and Structural Vibrations (3) F**

*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.

**463 Thermal Power Systems (3) S**

*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.

**464 Mechanical Design (3) F**

*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.

**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.

**466 Gas Dynamics and Boundary Layer Flow (3) F**

*Prerequisite:* 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.

**467 Heat Transfer (3) F**

*Prerequisites:* ENGR 304 and 308 (308 may be taken concurrently). Fundamental principles of heat transfer with applications to design. Conduction, transient and steady state; free and forced convection; radiation. Heat exchangers.

**468 Applied Fluid Mechanics and Hydraulics (3) S**

*Prerequisite:* ENGR 304. Fluid mechanics: incompressible flow to steady and transient flow problems in piping networks, turbo-machines, and open channels.

**476 Computer Communication Network (3) S**

*Prerequisites:* ENGR 103; a grade of C or better in ENGR 356. Technological precedents and alternatives in setting up a computer communication. OSI reference model, ISDN, Ethernet, FDDI, X.25, Frame Relay, ATM, and SONET topics. Classwork, 2 units; laboratory, 1 unit.

**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.

**610 Engineering Cost Analysis (3) F,S**

*Prerequisites:* ENGR 103 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.

**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.

**693 Cooperative Education Program (6 or 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.

**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.

**696 Engineering Design Project I (1) F**

*Prerequisites:* completion of at least 21 upper division units in engineering and passing score on JEPET or concurrent enrollment in ENG 414. Selection of design project, methods of research, time management, engineering professional practice and ethics.

**697 Engineering Design Project II (2) S**

*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.

**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.

**699 Special Study in Engineering (1-3) F,S**

*Prerequisites:* approval of the division and the instructor. Special study in the laboratory, field, or li-

brary under the direction of a member of the division. The student must present a detailed written report of the work accomplished. May be repeated 3 times.

**Graduate Courses****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.

**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.

**803 Applied Probability and Statistics for Engineers (3)**

*Prerequisite:* graduate status in engineering or consent of instructor. Concepts and theorems of probability; distributions commonly encountered in engineering; joint probability distribution. Statistical inferencing. Stochastic processes; time series analysis. Reliability engineering. Case studies.

**828 Advanced Stress Analysis (3)**

*Prerequisites:* ENGR 309 or graduate status in engineering, and consent of instructor. Solutions of stress analysis problems expected to arise in industry or design offices related to mechanical and structural design. Emphasis is on advanced techniques involving unsymmetrical bending, plate and shell theory. Students are encouraged to use computer software such as ProMechanica.

**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.

**833 Principles of Earthquake Engineering (3)**

*Prerequisites:* ENGR 323, 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.

**834 Hazardous Waste Management (3)**

*Prerequisite:* consent of instructor. Groundwater contamination, contaminant rate and transport, fundamentals of flow, multi-phase flow, quantitative risk assessment, site and subsurface characterization, environment audits, pollution prevention, remedial methods for site cleanup, containment air stripping design.

**836 Structural Design for Earthquakes (3)**

*Prerequisites:* graduate status in engineering with prior courses in steel and concrete design. Earthquake

resisting systems in buildings; seismic design criteria for structures; seismic upgrade and retrofit; computer applications in structural modeling and analysis for seismic forces.

### 837 Geotechnical Earthquake Engineering (3)

*Prerequisite:* ENGR 430. Vibration analysis of discrete and continuous systems. Earthquake engineering. Dynamic soil properties. Deterministic and probabilistic ground response analysis. Evaluation and mitigation of liquefaction hazards.

### 838 Environmental Engineering Information System (3)

*Prerequisite:* graduate or senior standing. Research methods for literature search and for technical approaches. Topics include Environmental Engineering Information System (ENVEIS) and fundamentals of environmental databases (spatial and non-spatial).

### 839 Water Pollution Control Engineering (3)

*Prerequisite:* ENGR 434. Design of treatment systems for domestic waste water. Characteristics of sewage, and sludge. Biological treatment methods.

### 840 Power Systems Simulations and Control (3)

*Prerequisite:* ENGR 448. Methods for system analysis, power matrices, modeling of transmission and distribution systems, control of unbalanced fault and load conditions, network reduction and stochastic power flow.

### 841 Power Systems Transients and Stability (3)

*Prerequisite:* ENGR 448. Power system stability, synchronous machines under transient conditions; transients and harmonics with computer solutions; planning.

### 842 Design with Analog Integrated Circuits (3)

*Prerequisite:* ENGR 442 or consent of instructor. Systems design with analog ICs for audio, instrumentation, and control applications: smoothing and anti-aliasing filters, S/H amplifiers, V/F and F/V converters, phase-locked loops, voltage references and regulators, D/A and A/D converters, logarithmic amplifiers, switched-capacitor circuits, low-noise amplifier design. Computer-aided design and simulation of analog circuits.

### 845 Motion Control Technology (3)

*Prerequisites:* ENGR 306 and 455. DC and AC variable speed motor drives; synchronous, step, and switched reluctance motor drives. Speed and position control systems. Power electronic circuits; controlled rectifiers; PWM inverters; current source inverters; slip energy recovery.

### 846 Power Quality Issues: Problems and Solutions (3)

*Prerequisites:* ENGR 306 and 455. Harmonics problems in power transmission and distribution systems. Causes of voltage and current harmonics; identification of problems; mitigation techniques to problems.

### 847 Switching Mode Power Supply Design (3)

*Prerequisites:* ENGR 306, 353, 445, and 455. Design of circuit topologies used in switching mode power supply: flyback, push-pull, forward, and cuk topolo-

gies. Design of inductor and transformer for high switching frequency applications. Resonant technologies; load-resonant, quasi-resonant, and multi-resonant circuits.

### 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.

### 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.

### 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.

### 860 Advanced Engineering Design—The Human Interface (3)

*Prerequisite:* consent of instructor. Capabilities and limitations of human performance. Application of heuristic and ergonomic principles to the design of appropriate technology for solving human scale problems.

### 862 Deformation and Fracture of Materials (3)

*Prerequisites:* ENGR 200, 309, and consent of instructor. Mechanical behavior of materials; the effects of micro-structure on material response. Mechanical and metallurgical factors affecting deformation and fracture. Yielding, ductile fracture, brittle and fatigue.

### 865 Mechanism Synthesis and Analysis (3)

*Prerequisite:* ENGR 201. Displacement, velocity, and acceleration analysis or linkages. Kinetostatic analysis by complex numbers and matrices. Synthesis of planar linkage systems. CAM synthesis.

### 866 Engineering Aspects of Air Pollution (3)

*Prerequisite:* consent of instructor. Air pollution inventory; air quality standards; regulations; generation, measurement, and control of air pollutants. Generation, destruction, and abatement of air pollutants from engineered systems including process and combustion equipment. Air pollution control systems.

### 890 Graduate Seminar (3)

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

### 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.

### 897 Research (3)

*Prerequisites:* completion of nine units of graduate work, with at least six from ENGR 801, 802, or 803. Independent investigation or significant design project under supervision of an Engineering faculty member. Intended as the research investigation leading to the master's thesis.

### 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.

### 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.

## 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.*

### 048 Introduction to College Writing I (3)

*Prerequisites:* score of 141 or lower on EPT; students must be entering freshmen. Must be taken concurrently with ENG 118. First semester of a two-semester sequence. Work on close and critical reading and on writing clearly organized and logically developed essays. Units do not count toward graduation.

### 049 Intensive Learning English (3)

Development of sentence, paragraph, and essay writing abilities to the level required for admission to ENG 50. Units and grades earned do not count toward graduation requirements. ABC/NC grading. Must be taken concurrently with ENG 115.

### 050 Writing Skills Workshop (3)

*Must be taken concurrently with ENG 115.* Development of sentence, paragraph, and essay writing abilities to the level required in the college writing class. Units and grades earned do not count towards graduation requirements. Plus-minus ABC/NC grading. CR/NC allowed.

### 051 Introduction to College Writing II (3)

*Prerequisite:* score of 142-150 on EPT or successful completion of ENG 48. Must be taken concurrently with ENG 121. Designed to help students develop as academic readers, writers, and critical thinkers. Work on close and critical reading and on writing clearly organized and logically developed essays. Units do not count toward graduation.

**052 Accelerated English I (3)**

*Prerequisite:* entering freshman with EPT score of 141 or below. Must be taken concurrently with ENG 122. Two-semester (with ENG 53/123) accelerated English course equivalent to ENG 48/118, ENG 50/120, and ENG 114. Accelerated course helps students develop as readers, writers, and critical thinkers.

**053 Accelerated English III (3)**

*Prerequisites:* ENG 52 and ENG 122. Must be taken concurrently with ENG 123. Second semester of two-semester (with ENG 52/122) accelerated English course. Equivalent to ENG 48/118, ENG 51/121, and ENG 114. Accelerated course helps students develop as readers, writers, and critical thinkers.

**Undergraduate Courses****111 Reading Comprehension Laboratory (1-3)**

Individualized assistance and practice in reading comprehension, reading rate, library research, vocabulary and study skills. May be repeated for a total of 3 units. CR/NC grading only.

**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.

**114 First Year Written Composition (3)**

*Prerequisites:* see *Written English Requirements in this Bulletin for 114 eligibility*. Training in expository-argumentative composition, emphasizing work on clear and effective sentences and the organization and development of paragraph and essay. Must be taken before student has completed 30 units. ABC/NC grading.

**115 Effective College Reading (1)**

Effective silent reading skills. Instruction and practice in methods of increasing rate and improving reading comprehension, developing recall and interpretation skills, efficient study techniques. May be repeated for a total of 3 units. Must be taken concurrently with either ENG 49 or ENG 50.

**118 Effective College Reading I (1)**

*Must be taken concurrently with ENG 48.* Effective silent reading skills. Instruction and practice in methods of increasing rate and improving comprehension, developing recall and interpretation skills, efficient study techniques.

**121 Effective College Reading II (1)**

*Must be taken concurrently with ENG 51.* Development of skill in analytic reading and thinking, in building connections between existing knowledge and ideas acquired in reading. Teaches a variety of reading strategies, along with vocabulary and work identification skills.

**122 Accelerated English II (1)**

*Prerequisite:* entering freshman with EPT score of 141 or below. Must be taken concurrently with ENG 52. Two-semester (with ENG 52/123) accelerated English course equivalent to ENG 48/118, ENG 51/121, and ENG 114. Develops advanced reading skills and

an understanding of the reading/writing relationship.

**123 Accelerated English IV (1)**

*Prerequisites:* ENG 52 and ENG 122. Must be taken concurrently with ENG 53. Second semester of two-semester (with ENG 52/122) accelerated English course equivalent to ENG 48/118, ENG 51/121, and ENG 114. Students apply reading skills to a range of tasks across all disciplines.

**151 The Short Poem in English (3)<sup>1</sup>**

Major English and American poems ranging from medieval songs to the work of living poets.

**154 Masterworks of Literature in English (3) [GE]**

Critical appreciation of literary masterworks in English by representative authors selected from the vast array of literature in the English language.

**155 Contemporary Literature (3) [GE]**

Selected poetry, fiction, and drama of the late 19th century to the present.

**158 American Literature (3) [GE]**

Selected masterpieces of American literature.

**159 Beginning Shakespeare (3) [GE]**

Shakespeare, for potential English majors who have only slight acquaintance with Shakespeare's work, and for non-majors who are not yet conscious of themselves as heirs of Shakespeare's language and culture, and beneficiaries of his dramatic gifts.

**200 Writing Logically (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Thinking critically and arguing logically in written discourse: analysis of issues, critical assessment of written discourse, construction of written arguments. Development of thinking and writing skills necessary to handle issues which confront us daily.

**English as a Second Language**

English as a Second Language (ESL) courses are designed for foreign students, resident students, and citizens who are non-native speakers of English and who have been in the U.S. for fewer than 6 years. Such students have typically had a majority of their pre-college academic work in a language other than English. The ESL courses are: ENG 201, 202, 204, 208, 209, 210, 212, 310, 410, and 411. Admission to all ESL courses requires either a qualifying score on the English as a Second Language Placement Test (ESLPT) or a recommendation from the instructor of a previously completed ESL course at SFSU. No exceptions.

**201 English as a Second Language: Intensive Academic English 1 (4)**

*Prerequisites:* qualifying scores on EPT and ESLPT. For freshman immigrant ESL students. Academic English skills and proficiency for university course work: reading, vocabulary, test-taking, and writing. Classwork, 3 units; laboratory, 1 unit.

<sup>1</sup>English courses normally earn 3 units of credit. However, courses marked by footnote <sup>1</sup> may be offered for more than 3 units. Consult the *Class Schedule*.

**202 English as a Second Language: Intensive Academic English 2 (4)**

*Prerequisite:* ENG 201. Continuation of ENG 201. Academic English skills and proficiency needed for university work: reading comprehension, critical reading, critical thinking, grammar editing, and composing. Classwork, 3 units; laboratory, 1 unit.

**204 ESL: Effective Literacy Skills for College (3)**

*Prerequisite:* qualifying score on ESLPT. Development of university-level reading, writing, and information literacy skills. May be repeated for a total of six units.

**208 English as a Second Language: Grammar for Writing I (3)**

Grammatical accuracy in written work. Structures typically reviewed and practiced include articles, verb forms and tenses, modal verbs, and sentence structure. ABC/NC grading. May be repeated for a total of 6 units.

**209 English as a Second Language: Composition 1 (3)**

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. May be repeated for a total of 6 units.

**210 English as a Second Language: Oral Communication (3) [GE]**

*Prerequisite:* qualifying score on the SFSU English as a Second Language Placement Test (ESLPT) or recommendation from instructor of ENG 202, 204, or 208. Development of skills in listening, speech delivery, and preparation and presentation of informative and persuasive speeches. Fulfills G.E. Segment I: Oral Communication requirement. ABC/NC grading.

**212 English as a Second Language: Advanced Grammar for Writing (3)**

Grammatical accuracy and variety at the sentence and discourse levels. Readings, grammatical analysis, and compositions with emphasis on editing one's own writing. May be repeated for a total of 6 units.

**214 Second Year Written Composition (3) [GE]**

*Prerequisite:* grade of C or better in ENG 114 or equivalent. Expository-argumentative composition and critical reading skills through the study of literature; special attention to logic, style, and rhetoric. Must be taken after student has completed 24 units and before completing 60 units. ABC/NC grading.

**310 English as a Second Language: Composition 2 (3) [GE]**

Expository argumentative composition and critical reading of nonfiction pieces: supporting arguments with outside sources and developing revising strategies and research skills. Fulfills GE Segment I: Written Communication requirement. May be repeated for a total of 6 units.

**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.

### 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.

### 397 The Journal (1)

Practice in using the journal to define, analyze, and comment upon combinations of work and personal experience. Enrollment by interview only. May be repeated.

### 410 English as a Second Language: Elements of Writing-Bilingual (3)

*Prerequisites:* junior standing, and qualifying score on the SFSU English as a Second Language Placement Test (ESLPT) or ENG 310. Review and practice of the critical reading, writing, and thinking skills necessary for academic writing, including text-based essays, research reporting, and the interpretation of literature. Satisfies upper division literacy requirement; does not serve as prerequisite for ENG 416. ABC/NC grading.

### 411 English as a Second Language: Literature and Composition (3) [GE]

*Prerequisites:* junior standing and qualifying score on the SFSU English as a Second Language Placement Test (ESLPT) or ENG 310. Advanced composition based on critical reading of literature. Designed for non-native speakers of English. Satisfies upper division literacy requirement and General Education Segment II: Humanities requirement; does not serve as a prerequisite for ENG 416. ABC/NC grading.

### 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.

### 415 Literacy and the Writing Process (3)

*Prerequisite:* ENG 214 or equivalent. Writing techniques and text production through collaborative participation in projects in off-campus literacy mentoring work. Students work with children to strengthen their literacy skills.

### 416 Junior Composition (3)

*Prerequisites:* completion of 56 or more units and successful completion of ENG 410, ENG 411, ENG 414, a passing score on JEPET, or post-baccalaureate status. Development of practical expository-argumentative writing skills for upper-division college work. Required for multiple subjects credential, but may not be used to fulfill single subject credential or English major requirements.

### 419 Advanced Composition for Teachers (3)

*Prerequisite:* ENG 657 or consent of instructor. The composing process: purpose, audience, types of discourse, rhetorical strategies, syntactic structures,

uses of response groups, problems in evaluating texts, and apprentice writers.

### 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.

### 421 The Structure of English (3)

Generative-transformational theory of grammar as compared to traditional school grammars. Background for teaching English.

### 422 History of the English Language (3)

Background, sources, and development of English; examinations of writing of historical periods of the language.

### 424 Phonology and Morphology (3)

Analysis of phonological and morphological systems using data drawn from wide range of languages.

### 425 Language in Context (3)

*Prerequisite:* upper division standing. Required for entrance into M.A. TESOL program. Field of sociolinguistics: language variation in relation to age, ethnicity, gender, region, social class, occupation; language and culture; multilingualism; attitudes toward language varieties; discourse analysis.

### 426 Second Language Acquisition (3)

*Concurrent enrollment in a foreign language required.* Diversity of variables affecting second (or foreign) language acquisition by adults or children. Required for entrance into M.A. TESOL program.

### 429 Stylistics (3)

*Prerequisite:* ENG 114 or equivalent. 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.

### 430 Studies in Linguistics and the History of Language (3)

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

### 434 Language, Literacy, and Citizenship (3)

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Working with immigrants in community settings to assist them in learning ESL and preparing for naturalization. Paired with ENG 734. Students who have completed ENG 434 may not take ENG 734 for credit. (Formerly ENG 431.)

### 451 American Jewish Literature (3) [GE]

*Prerequisite:* ENG 214. For course description, see JS 451.

### 475 Fundamentals of Literary Analysis (3)

*Prerequisite:* ENG 214 or equivalent or upper division standing. Training in close reading and mastering the conventions of literary analysis. Investigates multiple genres--poetry, the novel, drama, children's literature--and teaches students to interpret works by examining literary elements. Particularly suitable for students preparing to be teachers.

### 480 Junior Seminar (3)<sup>1</sup>

*Prerequisite:* ENG 214 or equivalent or upper division standing. 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.

### 501 Age of Chaucer (3) [GE]

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Fourteenth century English literature. Major writers of the period.

### 502 Medieval English Literature (3)

*Prerequisite:* ENG 214 or equivalent or consent of instructor. English literature from the beginnings to the Renaissance. Earlier works are read in translation.

### 503 Studies in Medieval Literature (3)<sup>1</sup>

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

### 508 Studies in Seventeenth Century English Literature (3)

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

### 509 Age of Humanism (3)

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Major authors from the Elizabethan Age to the Restoration considered in terms of the development of literary forms and of changes in the humanist tradition during the 17th century.

### 510 The Age of Wit (3)<sup>1</sup>

*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.

### 512 Studies in Eighteenth Century English Literature (3)<sup>1</sup>

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

### 514 Age of the Romantics (3)<sup>1</sup>

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Poetry and prose of Blake, Coleridge, Byron, Wordsworth, Shelley, and Keats.

### 516 Age of the Victorians (3)<sup>1</sup>

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Poetry and prose of major writers of the period; changes in literary forms and ideas and their relationship to changes in society.

### 520 20th Century British Literature (3)<sup>1</sup>

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Major poets, essayists, and fiction writers of Great Britain since the turn of the 20th century; those studied include Hopkins, Wilde, Hardy,

<sup>1</sup>English courses normally earn 3 units of credit. However, courses marked by footnote <sup>1</sup> may be offered for more than 3 units. Consult the *Class Schedule*.

Conrad, Ford, Forster, Lawrence, Joyce, Yeats, Woolf, Auden, and some contemporary authors.

**521 Studies in 20th Century English Literature (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**522 Irish Literature (3)**

*Prerequisite:* ENG 114 or equivalent or consent of instructor. Major writers who emerged in Ireland at the turn of the 20th century: Lady Gregory, Yeats, Synge, and Joyce. The Irish literary revival in the context of social, political, and literary history.

**525 Studies in American Literature (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**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.

**527 American Literature: 1860-1914 (3)<sup>1</sup> [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.

**528 American Literature: 1914-1960 (3)<sup>1</sup>**

*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.

**529 American Literature: 1960-Present (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Poetry, fiction, drama, and criticism by such writers as Allen Ginsberg, Anne Sexton, Robert Creeley, Alice Walker, John Barth, John Hawkes, Vladimir Nabokov, Norman Mailer, Toni Morrison, Carson McCullers, Sam Shepard, Edward Albee, and Tennessee Williams.

**531 Early California Literature (3) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. California literature from Indian oral traditions through Spanish occupation to U.S. acquisition and the Gold Rush to the first decade of the 20th century.

**533 Holocaust and Literature (3) [GE]**

*Prerequisite:* ENG 214. For course description, see JS 437. (Also offered as CWL 437. May not be repeated under an alternate prefix.)

**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.

**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. (Also offered as JS/WOMS 546.)

**550 The Rise of the Novel (3)<sup>1</sup> [GE]**

*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.

**551 Nineteenth Century English Novel (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Developments in the novel from Jane Austen through Scott, Dickens, the Brontës, Thackeray, Trollope, Eliot, and Meredith.

**552 Modern British Novel (3)<sup>1</sup>**

*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.

**553 Classic American Novel (3)<sup>1</sup>**

*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.

**554 Modern American Novel (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Major novelists from Dreiser through Fitzgerald, Hemingway, and Faulkner to the present.

**555 The Short Story (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Short story as a distinctive literary phenomenon. Historical consideration; critical analysis of representative modern stories.

**556 Modern American Poetry (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Poetry from 1900 to the present.

**557 Modern British Poetry (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Poetry from 1900 to the present.

**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.

**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.

**570 Medieval and Renaissance Drama (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Development of dramatic literature in England from the emergence of the mystery and morality plays through the reign of Elizabeth.

**571 The Tragedy of Blood, The Comedy of Humors (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. English drama in the age of Shakespeare, reflecting the social, moral, and religious disorders of a society heading for civil war.

**573 American Drama (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. American drama from the beginnings to the present time.

**580 Individual Authors (3)<sup>1</sup>**

*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.

**583 Shakespeare: Representative Plays (3)<sup>1</sup> [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.

**584 Shakespeare: Selected Plays (3)<sup>1</sup>**

*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.

**589 Milton (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Milton's prose and poetry; examination of techniques, language, imagery, and interpretation. Paired with ENG 789. Students who have completed ENG 589 may not take ENG 789 later for credit.

**600 Theory of Literature (3)<sup>1</sup>**

*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.

<sup>1</sup>English courses normally earn 3 units of credit. However, courses marked by footnote <sup>1</sup> may be offered for more than 3 units. Consult the Class Schedule.

**601 Literature and Psychology (3)<sup>1</sup> [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.

**602 Literature and Society (3)<sup>1</sup> [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.

**603 Literature and the History of Ideas (3)<sup>1</sup> [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Literary analysis using the techniques of history of ideas. Relation of implicit assumptions to the intellectual climate of the age. Conscious and unconscious modes of thought and their influence on the creative process in literature.

**604 Literary Aspects of Contemporary Film (5) [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Literary form and its cinematographic manifestations. Several works, genres, and concurrently, films using equivalent modes, themes, tensions, patterns, or parallel techniques; stylistic transformations. (Also offered as HMSX 604.)

**605 History of Criticism from the Classical Age to the Eighteenth Century (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Through a reading of selected texts in literature and literary criticism, explores how the phenomenon of "literature" has been characterized from the Greeks through the 18th century.

**606 History of Criticism from the Eighteenth Century to the Present (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Through a reading of selected texts in literature and literary criticism, explores how the phenomenon of "literature" has been characterized from the 18th century to the present.

**607 The Comic View in Literature (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**608 The Tragic View in Literature (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**610 History of Criticism (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Development of literary criticism from ancient to recent times.

**611 Modern Criticism (3)<sup>1</sup>**

*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.

**612 Studies in the Theory and Criticism of Literature (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**613 Feminist Literary Criticism (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. For course description, see WOMS 544.

**614 Women in Literature: Authors and Characters (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**615 Imagery, Metaphor, and Symbol (3)<sup>1</sup> [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.

**616 Science Fiction and Fantasy (3)<sup>1</sup> [GE]**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Themes and ideas in science fiction and fantasy literature; relationship between the genre's scientific rationality and literary techniques.

**618 Studies in Gay and Bisexual Literature (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**630 Selected Studies (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**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.

**633 Gay Love in Literature (3)<sup>1</sup> [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. (Also offered as HMSX 633.)

**634 Western Culture: Queer and Canonical (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. For course description, see CHS 635. (Also offered as HMSX 635.)

**635 Coming of Age in America (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Experiences surrounding coming of age in America through literature. Novels, short stories, poems, and memoirs describing the process of growing up in various segments of our society.

**636 Greek and Roman Myth and Modern Literature (3)**

*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. (Also offered as CWL 636. May not be repeated under alternate prefix.)

**651 Teaching English to Speakers of Other Languages: Basic Principles (3)**

*Prerequisite:* ENG 114 or equivalent. Theoretical and practical aspects of TESOL. Linguistics for the beginning teacher; materials and procedures; lesson planning and testing. Designed for in-service teachers and as an introduction to the field.

**652 Principles of Teaching ESOL Through Instructional Technology (3)**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Principles and practices in teaching English to speakers of other languages through the use of computers. Regular participation in electronic form is a required part of class.

**653 TESOL: Pedagogical Grammar (3)**

*Prerequisite:* ENG 421 and completion of upper division written English requirement or graduate status. English grammar for prospective or practicing teachers of English to speakers of other languages, including linguistic description and organization for effective teaching practice.

**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.

**656 Reading Theory and Methods (3)**

*Prerequisite:* consent of instructor. Historical trends and causes of reading disability, testing and diagnostic materials, remedial and developmental reading skills, and approaches to teaching reading.

**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 to raise the grade; units completed are granted only once.

**660 Exploring and Constructing On-line Research and Writing (3)**

*Prerequisites:* ENG 214 and completion of GE library requirement. Traditional and computer-based research, learning to use library databases, hypertext, and library technological resources.

**661 Tutoring Writing in High Schools (3)**

*Prerequisite:* ENG 414, passing JEPET, or graduate status. Theories and methods of tutoring composition at the high school level. Tutoring in Bay Area high schools approximately 10 hours a week.

**670 Graduate Writing for TESOL and Linguistics (3)**

*Prerequisites:* graduate status, or application in progress, in English (TESOL or linguistics); qualifying

<sup>1</sup>English courses normally earn 3 units of credit. However, courses marked by footnote <sup>1</sup> may be offered for more than 3 units. Consult the Class Schedule.

score on the Graduate Essay Test (GET), 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.

**678 Field Experience in the English Secondary Classroom (2)**

*Prerequisite:* ENG 214 or equivalent. Field experience in English and Language Arts public school classrooms. CR/NC grading only.

**688 Assessment in English Language Arts (1)**

*Prerequisites:* senior standing and interview with English Single Subject Credential adviser. Assessment through analysis of strengths and weaknesses of English language arts: oral and written performance, response to literature, applied language concepts. Required for students entering the Single Subject Credential in English. (Also offered as SPCH 688.)

**690 Senior Seminar (3)<sup>1</sup>**

*Prerequisite:* ENG 214 or equivalent or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**695 Community Work Experience (3)<sup>1</sup>**

*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.

**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.

**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.

**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.

**700 Introduction to Composition Theory (3)**

*Prerequisite:* classified graduate status in English. Issues of composition theory, research, and class-

room practice. May be repeated once to raise the grade; units completed are granted only once.

**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.

**702 The Reading-Writing Connection (3)**

*Prerequisite:* ENG 657. Processes of reading and writing and their application to the teaching of composition.

**703 Tutoring Writers Across the Disciplines (1-3)**

*Prerequisite:* graduate status or consent of instructor. Composition tutoring at all levels: contemporary theories; strategies for working with content, organization, genre knowledge, subskills; computer-mediated tutoring strategies. Students receive 1 unit for each 2 students tutored up to a maximum of 3 units per semester. May be repeated for a total of 6 units. CR/NC grading only.

**704 Introduction to the Teaching of Writing (3)**

*Prerequisite:* grade of A or B in ENG 657 or consent of instructor. Teaching sentences and paragraphs, identifying errors and patterns of error in context. May be repeated once to raise the grade; units earned are granted only once.

**705 Seminar in Basic/Developmental Writing (3)**

*Prerequisite:* grade of A or B in ENG 657, or consent of instructor. Theories and practices in post-secondary basic/developmental writing courses. May be repeated once to raise the grade; units earned are granted only once.

**706 Sociolinguistics of Composition (3)**

The sociolinguistics of written communication: differences between oral and written speech; effects of dialect and culture differences on learning writing; functions of writing in and out of school; writer/reader interactions; nature and function of discourse communities.

**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.

**708 Computers and the Teaching of Writing (3)**

*Prerequisite:* ENG 657 and working knowledge of at least one word processing package for the IBM PC/compatible. Exploration of the computer and programs designed for teaching composition.

**709 Seminar in Teaching Integrated Reading/Writing I (3)**

*Prerequisite:* ENG 657 with grade of A or B or consent of instructor. Exploration of the integration of reading and writing from both a theoretical and pedagogical perspective.

**710 Seminar in Teaching Integrated Reading/Writing II (3)**

*Prerequisite:* ENG 709. Exploration of the integration of reading and writing from both a theoretical and pedagogical perspective.

**711 Proseminar: Selected Genres and Major Authors (3)**

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

**712 Proseminar: Survey Studies in English and American Literature (3)**

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

**715 Projects in the Teaching of Reading (3)**

Research and methodology in teaching college reading skills; identification, diagnosis, and remediation of reading and basic-literacy problems; developing effective classroom and individual approaches through observations and tutoring assignments.

**716 Projects in the Teaching of Writing (3)**

*Prerequisite:* ENG 704 with a grade of B or better. Planning and teaching the college composition course: designing the course, constructing and sequencing writing assignments, teaching the expository essay, planning and teaching individual lessons, responding to student writing.

**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.

**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.

**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).

**720 Seminar in Language, Literature, and Culture: TESOL (3)**

*Prerequisite:* ENG 730 or consent of instructor. Cross-cultural perspectives on language, values, and behavior applied to content in literature. Problems and techniques in teaching English literature to speakers of other languages.

**722 Seminar in Language Assessment (3)**

*Prerequisites:* ENG 421, 424, 426, and 730 or equivalent experience. Language assessment for teachers of English to speakers of other languages. Instruction and experience in the development, administration, and interpretation of language tests.

<sup>1</sup>English courses normally earn 3 units of credit. However, courses marked by footnote <sup>1</sup> may be offered for more than 3 units. Consult the *Class Schedule*.



**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.

**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.

**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.

**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.

**727 Research Methods in Language Studies (3)**

Issues in research design for students of language studies. Emphasizes tools necessary to propose, conduct, and evaluate research.

**728 Seminar in Sociolinguistics (3)**

*Prerequisites:* ENG 425 or equivalent. In-depth study of sociolinguistic topics. Critical examination of issues, methods, findings, and implications of recent research.

**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.

**730 Introduction to Graduate Study of TESOL (3)**

*Prerequisites:* successful completion of Graduate Essay Test (GET); ENG 425 and 426. Contemporary approaches, theories, goals, and problems in TESOL teaching and testing. Research techniques.

**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.

**732 Seminar: TESOL Reading/Writing Skills (3)**

*Prerequisites:* ENG 421, 424, and 730. Theories, research, objectives, problems, and techniques in the teaching of English to speakers of other languages, reading and writing skills; systematic study of materials and methods of instruction; preparation of teaching materials.

**733 Student Teaching in Teaching English to Speakers of Other Languages (3)**

*Prerequisites:* ENG 653, 731, and 732. Teaching English to speakers of other languages under the guid-

ance of a master teacher with the cooperation of the ENG 733 course instructor. CR/NC grading only.

**734 Language, Literacy, and Citizenship (3)**

For course description, see ENG 434. Paired with ENG 434. Students who have completed ENG 734 may not take ENG 434 for credit.

**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.

**742 Seminar: Studies in Criticism (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**744 Seminar: Literature and Psychology (3)**

Contributions of depth psychology to the understanding of selected works of literature.

**746 Seminar: Modern Criticism (3)**

Assumptions and principles underlying various modes of literary criticism, and applies some of the critical methods (e.g., historical-sociological, mythic, formalist) to literature.

**747 Feminist Criticisms (3)**

*Prerequisite:* graduate status in English or consent of instructor. For course description, see WOMS 747.

**748 Rhetoric, Politics, and Ethics of Deconstruction (3)**

An exploration of the rhetoric, politics, and the ethics of deconstruction in selected works by Derrida, De Man, Lacoue-Labarthe, Nancy, and Blanchot.

**750 Seminar in Medieval English Literature (3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**751 Seminar: Studies in 16th Century English Literature (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**752 Seminar: Studies in 17th Century English Literature (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**753 Seminar: Studies in 18th Century English Literature (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**755 Seminar: Studies in Victorian Literature (3)**

Topic to be specified in Class Schedule. May be repeated for a total of 6 units as topics vary.

**756 Seminar: 20th Century English Literature (3)**

Twentieth century British poetry, fiction, and rhetoric focusing upon a particular poet or novelist.

**759 Curriculum and Instruction in English (3)**

*Prerequisite:* enrollment in secondary credential program or consent of instructor. Formulation and evaluation of objectives and methods on teaching En-

glish language, literature, and oral and written communication in secondary schools. Evaluation of instructional materials.

**760 Seminar: Studies in American Literature, 1600-1899 (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**762 Seminar: 20th Century American Literature (3)**

A major work, author, literary trend, or other literary problem arising from the literature.

**770 Seminar: the Novel (3)**

A major literary problem in the genre.

**772 Seminar: Drama (3)**

A special period or a general problem of the drama in English.

**775 Seminar: Comedy (3)**

Comedy as form and idea, based on readings of representative works in drama and other genres.

**780 Seminar: Individual Authors (3)**

Author to be specified in Class Schedule. May be repeated when author varies.

**782 Seminar: Chaucer (3)**

Selected works: examination of sources, textual problems, rhetorical techniques, language, and the cultural background.

**785 Seminar: Shakespeare (3)**

Representative plays: examination of textual problems, dramatic technique, language, imagery, and interpretation.

**789 Milton (3)**

For course description, see ENG 589. Paired with ENG 589. Students who have completed ENG 789 may not take ENG 589 for credit.

**790 Seminar: Selected Studies (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**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.

**890 Seminar in Composition Research (3)**

*Prerequisite:* ENG 700 with a grade of B or better. Research methods in composition.

**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.

**892 Integrative Seminar in Composition Studies (3)**

*Prerequisite:* ENG 890 with a grade of B or better. Major issues in English composition studies. For Master of Arts candidates in English with Concentration in Composition.

**896 Projects in Composition Research (3)**

*Prerequisite:* completion of ENG 890 with a grade of B or better. Problem of data reduction, coding, analysis, write-up, and presenting the findings in a formal, professional manner. May be repeated for a total of 6 units.

**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.

**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***300 Environmental Studies (3)**

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.

**380 Chemistry Behind Environmental Pollution (3) [GE]**

*Prerequisite:* CHEM 111 or CHEM 115. Traditional and contemporary topics in environmental chemistry. Understanding and appreciation of various chemical processes and principles underlying environmental problems facing society.

**450 Environmental Law and Policy (3) [GE]**

*Prerequisite:* 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.

**600 Environmental Problems and Solutions (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. For course description, see GEOG 600. (May not be repeated under alternate prefix.)

**680 Environmental Studies Internship (1-3)**

*Prerequisites:* 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.

**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 pro-

jects working with the community to assist in problem solving or activism; job evaluation.

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

*Prerequisites:* 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****050 Pre-algebra Mathematics Skills Development (3)**

Practical skills development in conventional mathematics; third world perspectives and contributions to the development of mathematics. Units and grades earned do not count towards graduation requirements.

*Undergraduate Courses***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.

**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.

**102 Basic Achievement Techniques (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.

**105 Introduction to Third World Thinking (3)**

Perspectives and issues of the Third World experience through the fundamentals of thinking and reasoning and other forms of analysis. Preparatory development for ETHS 110.

**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.

**125 Introduction to Health in American Ethnic Communities (3) [GE]**

Health assessment through identification of the major body systems and medical terminology, with focus on the diseases and illnesses that are related to American racial/ethnic groups.

**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.

**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.

**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.

**265 Issues in Raza 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.

**270 Ethnic Studies: La Raza Experience (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.

**315 Regional Ethnography (3)**

*Prerequisite:* ENG 214. Topic to be specified in Class Schedule. For course description, see ANTH 315. (Also offered as ANTH 315.)

**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.

**450 Contemporary Arabic and Arab American Literature (3)**

*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. (Also offered as ARAB/CWL 450. May not be repeated under alternate prefix.)

**460 AIDS and People of Color in the U.S. (3) [GE]**

*Prerequisites:* BIOL 327 and H ED 370. For course description, see COUN 450. (May not be repeated under alternate prefix.)

**470 Raza Immigration to the U.S. (3) [GE]**

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.

**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 cul-

ture. May be repeated for a total of 6 units. (Also offered as DANC/MUS 545.)

**560 Alternative Representation in Documentary Production (3)**

*Prerequisites:* upper division standing and consent of instructor. For course description, see CINE 560. (Also offered as WOMS 560. May not be repeated under alternate prefix.)

**571 Women, Class, and Race (3) [GE]**

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.

**600 History of U.S. People of Color: Comparative Analysis (3) [US]**

*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. Paired with ETHS 700. Students completing ETHS 600 may not take ETHS 700 later for credit. (Page reference for U.S. history requirement can be found in the Index.)

**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. Paired with ETHS 825. Students who have completed ETHS 625 may not take ETHS 825 for credit.

**640 Race and Sexual Migration (3)**

*Prerequisite:* upper division standing or consent of instructor. Examination of comparative and interdisciplinary ethnic studies perspectives on the sexual migration of communities of color within national and global borders and boundary crossings. Focus on intersections of race, ethnicity, gender, sexuality, and their relationship to (im)migration processes. Paired with ETHS 840. Students who have completed ETHS 640 may not take ETHS 840 for credit.

**645 Sex and the City: Race, Lies, and Love in San Francisco (3)**

*Prerequisite:* upper division standing or consent of instructor. Examines people of color as both objects and actors in the evolution of San Francisco's sexual culture. Race, ethnicity, and sexuality intersect in multiple aspects of sex and the City including orientation, oppression, intercourse, health, and the performance of gender. (Also offered as HMSX 645. May not be repeated under alternate prefix.)

**647 Cancer Disparities Among Underserved Communities (3)**

*Prerequisites:* upper division standing and consent of instructor. Understanding health disparities in cancer in underserved communities. Focus on breast cancer from a multidisciplinary approach including

the clinical aspects, psychosocial impact on women and their families, and what it means to be a breast cancer survivor. Paired with ETHS 847. May be repeated for a total of 6 units.

**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.

**671 San Francisco Politics: An Ethnic Perspective I (3)**

*Prerequisites:* upper division standing and project admission. Examination of San Francisco ethno-political issues from the perspective of the African American, Asian American, Latino American, and American Indian communities. Classes may be held off campus. Internship required in city government agencies.

**672 San Francisco Politics: An Ethnic Perspective II (3)**

*Prerequisites:* upper division standing and project admission. Continued examination of San Francisco ethno-political issues from the perspective of the African American, Asian American, Latino American, and American Indian communities. Classes may be held off campus. Internship required in city government agencies.

**680 Issues in Comparative Ethnic Studies (3)**

*Prerequisite:* upper division standing or consent of instructor. An intensive examination of comparative issues in the field of ethnic studies. May be repeated for a total of 9 units.

**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.

**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.

**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.

**Graduate Courses**

**700 History of U.S. People of Color: Comparative Analysis (3)**

*Prerequisite:* consent of instructor. For description, see ETHS 600. Paired with ETHS 600. Students who take ETHS 700 may not take ETHS 600 for credit.

**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.

**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.

**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.

**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. May not be used to fulfill program emphasis requirements.

**825 Mixed Race Studies: A Comparative Focus (3)**

For course description, see ETHS 625. Paired with ETHS 625. Students who have completed ETHS 825 may not take ETHS 625 for credit.

**840 Race and Sexual Migration (3)**

For course description, see ETHS 640. Paired with ETHS 640. Students who have completed ETHS 840 may not take ETHS 640 for credit.

**847 Cancer Disparities Among Underserved Communities (3)**

*Prerequisite:* consent of instructor. For course description, see ETHS 647. Paired with ETHS 647. May be repeated for a total of 6 units.

**880 Issues in Ethnic Studies (3)**

*Prerequisites:* advancement to candidacy and consent of graduate major adviser. An intensive examination of issues in the field of ethnic studies. May be repeated once.

**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.

**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.

**896 Directed Reading in Ethnic Studies (3)**

*Prerequisite:* consent of adviser. Intensive directed reading in ethnic studies under the supervision of a faculty member.

**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.

**899 Special Study (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***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.

**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***350 Business Finance (3) F,S**

*Prerequisites:* ACCT 101, ECON 101, BA 110, 212; ISYS 263 or pass computer information systems proficiency test. 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.

**351 Financial Management (3) F,S**

*Prerequisites:* FIN 350 (C- or better) and ISYS 263 or pass computer information systems proficiency test. Conceptual and analytical aspects of financial decision-making. Risk-return analysis, capital budgeting, capital structure, valuation, and cost of capital.

**353 Financial Institutions (3) F,S**

*Prerequisites:* FIN 350 (C- or better), MGMT 407, ISYS 263 or pass computer information systems proficiency test. 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.

**355 Investments (3) F,S**

*Prerequisites:* FIN 350 (C- or better) and ISYS 263 or pass computer information systems proficiency test. 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.

**357 Financial Statement and Data Analysis (3) F,S**

*Prerequisites:* FIN 350 (with a grade of C- or better) and ISYS 263 or pass computer information systems proficiency test. Techniques for the analysis and applications of financial statements and financial data for financial management and security market analysis, uses of spreadsheet and/or statistical models for financial analysis.

**365 Real Estate Principles (3) F,S**

*Prerequisite:* FIN 350 (C- or better). 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.

**366 Real Estate Finance (3) F**

*Prerequisite:* FIN 365. Procedures and techniques in financing urban and rural real estate. Evaluation of capital and mortgage markets, including private and public institutions providing funds. Appraisal of economic, social, and governmental factors influencing real estate finance.

**535 International Trade and Finance (3) F**

*Prerequisites:* FIN 350 (C- or better), IBUS 330, ISYS 263 or pass computer information systems proficiency test. International financial environment of business. International trade theory and policy, balance of payments, foreign exchange markets, eurocurrency markets, international bond markets, and international equity investing.

**536 International Corporate Finance (3) S**

*Prerequisite:* FIN 350 (C- or better), IBUS 330, and ISYS 263 or pass computer information systems proficiency test. International corporate financial management. Foreign exchange markets, foreign exchange risk management. International dimensions of working capital management, capital budgeting, cost of capital, and capital structure.

**653 Seminar in Bank Management (3) S**

*Prerequisite:* FIN 353; ECON 500 recommended. Analysis of decisions in liquidity, forecasting fund flows, portfolio adjustments, capital structure, profitability, and regulatory constraints applicable to bank management.

**656 Special Topics in Finance (3)**

*Prerequisite:* FIN 350 with grade of C- or better. Topic to be specified in Class Schedule. May be repeated as topics vary.

**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***819 Financial Analysis and Management (3) F,S**

*Prerequisites:* BUS 781, 783, 785; verified mathematics-statistics proficiency. Financial policy: working capital, security valuation, security markets, capital budgeting, capital structure, and dividend policy. Domestic and international aspects of corporate financial policy.

**820 Seminar in Financial Management (3) F,S**

*Prerequisite:* FIN 819 (B- or better). 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.

**822 Seminar: Financial Data Analysis (3) S**

*Prerequisite:* FIN 819 (B- or better). Extension of knowledge of quantitative methods to financial decisions. Properly matching analytic methods with practical situations, computer-based data analysis.

**825 Seminar in Investments (3) F,S**

*Prerequisite:* FIN 819 (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.

**828 Seminar: Financial Markets and Institutions (3) F**

*Prerequisite:* FIN 819 (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.

**834 New Venture Finance (3)**

*Prerequisites:* FIN 819, MGMT 831. Sources of financing available for prestartup, startup, survival, take-off, early maturity. Financial statement analysis, proforma construction, estimating cash flows, assessing risks, valuing compensation. (Also offered as MGMT 834.)

**835 Seminar in International Financial Markets (3)**

*Prerequisite:* FIN 819 (B- or better). International financial environment for business. Foreign exchange markets, eurocurrency markets, international bond markets, and international equity investing.

**836 Seminar in International Corporation Finance (3) S**

*Prerequisite:* FIN 819 (B- or better). Financial management of the multinational firm. Foreign exchange markets, foreign exchange risk management, working capital management, capital budgeting, cost of capital, and financial structure

**FOREIGN LANGUAGES**

See also Chinese, Filipino, French, German, Greek, Hebrew, Italian, Japanese, Latin, Portuguese, Russian, Sanskrit, and Spanish.

*Undergraduate Course***650 Foreign Language Teaching Methodology (3)**

*Prerequisites:* ENG 426 or consent of instructor and advanced proficiency in a foreign language. Theory and practice of teaching of foreign languages at the secondary and college levels. Paired with FL 850. Students who have completed FL 650 may not take FL 850 for credit.

*Graduate Courses***700 Seminar in Research Methods (1)**

*Prerequisite:* admission to a foreign language or literary studies M.A. program or consent of instructor. Problems and methods in research, documentation, and literary theory.

**850 Foreign Language Teaching Methodology (3)**

*Prerequisites:* ENG 426 or consent of instructor, graduate status, and advanced proficiency in a foreign language. For course description, see FL 650. Paired with FL 650. Students who have completed FL 850 may not take FL 650 for credit.

**FRENCH***Undergraduate Courses***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.

**102 Second Semester French (5) [GE]**

*Prerequisite:* FR 101 or equivalent. Continuation of FR 101.

**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.

**206 French in Review II (3) [GE]**

*Prerequisite:* Intermediate Low Level (FR 205 or equivalent). Attainment of Intermediate Mid 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.

**215 Intermediate French I (3) [GE]**

*Prerequisite:* Intermediate Mid Level in French (FR 102 with B or better, or FR 205 or equivalent). Attainment of Intermediate High Level in the four skills in French through increasingly complex tasks based on authentic French and Francophone cultural materials.

**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.

**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.

**304 Advanced Grammar (3) [GE]**

*Prerequisites:* FR 215 and FR 216 or equivalent; may be taken concurrently with FR 305. French grammar for upper division students.

**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.

**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.

**325 French Linguistics (3) [GE]**

*Prerequisites:* FR 305 or equivalent. Linguistic description of the French language, including a short historical introduction and discussion of topics in semantics, morphology, and syntax.

**400 French Culture (3) [GE]**

*Prerequisite:* FR 305 or equivalent. The culture and civilization of France from its origin to 1939.

**410 Contemporary French Civilization (3) [GE]**

*Prerequisite:* FR 305 or equivalent. The culture and civilization of France from 1939 to present.

**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.

**455 Langue et Culture Creole (3) [GE]**

*Prerequisites:* FR 305 and 325 or equivalent. The study of French-based Creole languages and other aspects of Creole culture in the French West Indies. Paired with FR 755. Students who have completed FR 455 may not take FR 755 later for credit.

**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.

**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.

**505 Poesie Lyrique du Moyen Age (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Study of various forms and examples of medieval lyric poetry writ-

ten in Occitan and old French. Emphasis on relationship to musical forms and performance as song, and how this tradition lives on in contemporary French "chanson." Paired with FR 805. Students who have completed FR 505 may not take FR 805 for credit.

**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.

**515 Renaissance Française (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Renaissance poetry and prose with emphasis on Rabelais, Montaigne, Ronsard, and Du Bellay. Paired with FR 815. Students who have completed FR 515 may not take FR 815 later for credit.

**520 French Classicism (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**530 Age of Reason (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**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.

**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.

**550 French Literature from Symbolism to Surrealism (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**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.

**565 L'Humour au XXème Siècle (3) [GE]**

*Prerequisite:* FR 500 or equivalent. Literary works in various genres which illustrate the notion of humour and its changes in France during the 20th century. Paired with FR 865. Students who have completed FR 565 may not take FR 865 later for credit.

**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.*

**700 Seminar in Research Methods (1)**

Problems and methods in research, bibliography, and criticism.

**755 Langue et Culture Creole (3)**

For course description, see FR 455. Paired with FR 455. Students who have completed FR 755 may not take FR 455 for credit.

**800 Seminar in French and Francophone Language and Culture (3)**

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

**805 Poesie Lyrique du Moyen Age (3)**

*Prerequisite:* FR 500 or equivalent. For course description, see FR 505. Paired with FR 505. Students who have completed FR 805 may not take FR 505 for credit.

**810 Seminar in French Literary Movements, Periods, or Genres (3)**

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

**815 Renaissance Francaise (3)**

For course description, see FR 515. Paired with FR 515. Students who have completed FR 815 may not take FR 515 for credit.

**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.

**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.

**865 L'Humour au XXeme Siecle (3)**

*Prerequisite:* FR 500 or equivalent. For course description, see FR 565. Paired with FR 565. Students who have completed FR 865 may not take FR 565 later for credit.

**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.

**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****101 Our Physical Environment (3) [GE] F,S**

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.

**102 The Human Environment (3) [GE] F,S**

Nature of cultural geography; interpretation of the cultural elements of the geographic landscape and study of our changing relationship with the environment.

**103 Geographic Techniques (4) F,S**

*Prerequisites:* designed to immediately follow GEOG 101 and 102 or equivalents. Geographical analysis; methodology, tools, and techniques used in geographical research.

**107 World Regions and Interrelations (3) [GE] F,S**

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.

**203 Geographical Measurement (3) [GE] F,S**

*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.

**312 Geography of Landforms (4) F**

*Prerequisite:* GEOG 101 or consent of instructor. Development of earth's surface landforms through processes involving weathering, hillslopes and flowing water, wind and ice. Structural and climatic control of landforms. Geographic analysis of landform systems. Classwork, 3 units; laboratory, 1 unit.

**313 Weather and Climate (4)**

*Prerequisite:* GEOG 101 or consent of instructor. Atmospheric processes responsible for global climatic differences and climatic changes. Distribution of energy in atmosphere precipitation patterns, air masses, and pressure systems. Effects of climate factors on the human environment. Classwork, 3 units; fieldwork, 1 unit.

**314 Regional Climatology (4) S**

*Prerequisites:* GEOG 101, GEOG 103, or consent of instructor. Diversity of the world's climatic regions. Alternative systems of climatic classifications, characteristics of global climatic types, global climatic change, and interactions in the biosphere. Classwork, 3 units; laboratory, 1 unit.

**316 Biogeography (4) F**

*Prerequisites:* GEOG 101, GEOG 103, or consent of instructor. Distribution, ranges, and limits of plants and animals and the biogeographical effects of hu-

man 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.

**317 Geography of Soils (4) A**

*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 fieldwork, 1 unit.

**402 The Climatic Challenge (3) [GE] F,S**

*Prerequisite:* ENG 214 or equivalent. Mutual interactions of climate and human activities. Cultural impacts of climate on food production, shelter, human comfort. Human effects on local and global climates and associated problems; urban climates. Coping with the threat of climatic change.

**421 Future Environments (3) [GE] F,S**

*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.

**422 Environmental Perception (3) [GE] A**

*Prerequisite:* GEOG 102 or consent of instructor. Facets of human behavior associated with perceptions of the natural and spatial environment, including mapping, residential preference, hazard perception, environmental attitudes and impacts. Classwork, 2 units; laboratory, 1 unit.

**425 Economic Geography (4)**

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. (Also offered as ECON 425.)

**427 Agriculture and Food Supply (4)**

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.

**429 Geography of Transportation (4)**

The geographical aspects of transportation systems. World patterns of air, water, and land transportation routes with emphasis on North America. Classwork, 3 units; fieldwork, 1 unit.

**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. (Also offered as URB 432. May not be repeated under alternate prefix.)

**433 Urban Transportation (4) [GE]**

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. (Also offered as URBS 433.)

**445 Political Geography (4)**

*Prerequisite:* ENG 214 and upper division standing. Physical and cultural geographic factors in and between political-territorial units. Effects of resource distribution, political motivations and ideologies on establishing territorial sovereignty. Classwork, 3 units; fieldwork, 1 unit. Also offered as IR 445. May not be repeated under alternate prefix.

**454 San Francisco on Foot (4)**

S

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. Eight all-day guided walking expeditions. Classwork, 1 unit; fieldwork, 3 units. May be repeated for a total of 8 units.

**455 Geography of Ethnic Communities (3) [GE]**

F,S

*Prerequisite:* ENG 214 or equivalent. The spatial structure and organization of ethnic communities as illustrated by reference to San Francisco and other American cities.

**550 Geography of the United States and Canada (3)**

F,S

*Prerequisite:* ENG 214 or equivalent. Anglo-America's physiography, climates, vegetation, soils, natural resources; the effect on development of industry, commerce, and population distribution.

**551 American Regional Cultures (3) [GE]**

F

*Prerequisite:* ENG 214 or equivalent. For course description, see AMST 400.

**552 Geography of California (3) [GE]**

S

*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.

**570 Regional Studies: Selected Regions (3) F,S**

*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.

**572 Geography of Latin America (3) [GE]**

*Prerequisite:* upper division standing. Physical and human geography of Latin America, including hazards, demographic and ethnic patterns, current geographic issues and the historical development of cultural landscapes. Includes a critical review of selected topics and discussions of future challenges.

**600 Environmental Problems and Solutions (3) [GE]**

F,S

*Prerequisite:* ENG 214 or equivalent. Ecological approach to nature and the landscape. Human popu-

lations, natural resources, and environmental quality in California with particular reference to the San Francisco Bay Area. (Also offered as ENVS 600. May not be repeated under alternate prefix.)

**602 Field Methods in Geography (4)**

*Prerequisite:* GEOG 103. Application of field methods to geographic inquiry. Research design and sampling methodologies for data collection. Field survey methods and methods for investigating specific geographic systems. Classwork, 2 units; fieldwork, 2 units.

**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.

**604 Map Reading and Interpretation (3)**

Nature and functions of maps; concepts of geographic orientation; applied geographic orientation, navigation and surveying; analysis of topography and map projection.

**606 Cartography (4)**

F

*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.

**610 Remote Sensing I (4)**

F

*Prerequisite:* GEOG 103. Remote sensing as a tool. Characteristics, geometry, and availability of images; stereoscopy and photogrammetry. Image interpretation general, selected topics. Planning, acquiring, digitizing, and digital processing of air photos. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**611 Remote Sensing of the Environment II (4) S**

*Prerequisites:* GEOG 603, or consent of instructor. Investigation of the environment using satellite imagery, with application to land-use planning, analysis of physical and cultural geographic features, resource inventory, pollution monitoring, and environmental impact studies. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**613 Remote Sensing of Wetlands and Coastal Zones (4)**

F

*Prerequisite:* college course in statistics or biometry. For course description, see BIOL 535. Classwork, 3 units; laboratory, 1 unit.

**620 Geographical Information Systems (4)**

S

*Prerequisite:* GEOG 603 or equivalent. Theory and applications of Geographic Information Systems for automating, analyzing, and producing maps from geographic data; vector spatial and site-suitability analysis. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**621 Geographic Information Systems for Environmental Analysis (4)**

F

*Prerequisite:* GEOG 603 or equivalent. Geographic Information Systems applied to environmental analysis and studies of physical geographic systems. Raster GIS: map algebra, image integration, surface and flow modeling; applied to earth surface processes and environmental systems. Classwork, 2 units; laboratory, 2 units. Extra fee required.

**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. (Also offered as GEOL 642. May not be repeated under alternate prefix.)

**646 The Geography of Marine Resources (4)**

A

*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.

**647 Geography of Water Resources (4)**

S

*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.

**648 Management of National Parks and Natural Areas (4)**

A

Conservation and preservation of large ecosystem units: natural parks, nature and wildlife reserves and equivalent natural areas. History, management, and problems of these tracts of land. Classwork, 3 units; laboratory, 1 unit.

**651 San Francisco Bay Area Environmental Issues (4) [GE]**

A

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. (Also offered as URBS 651.)

**652 Environmental Impact Analysis (4)**

A

*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.

**658 Land-Use Planning (4) [GE]**

F

*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. (Also offered as URBS 658.)

**666 Geography of Garbage: Recycling and Waste Reduction (3) [GE] S**

*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.

**667 Race, Poverty, and the Urban Environment (4) [GE]**

*Prerequisite:* upper division standing. For course description, see URBS 515.

**668 Politics, Law, and the Urban Environment (4) [GE]**

*Prerequisite:* upper division standing. For course description, see URBS 513. (Also offered as PLSI 513.)

**684 Geographic Excursions (4) A**

Field study of selected areas to analyze the interrelation of natural environment and human activities; laboratory hours to prepare for field and to work out reports. May be repeated once.

**688 Geographic Internship (2-6) F,S**

*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.

**690 Proseminar in Geography (3) F,S**

*Prerequisites:* completion of core and distribution requirements. Field of geography and emerging trends. Intended to give graduating majors an integrated view of their individualized undergraduate program.

**699 Special Study (1-3) F,S**

*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****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.

**735 Global Environmental Policy (3)**

*Prerequisite:* graduate status or consent of instructor. For course description, see I R 735. May not be repeated under alternate prefix.

**751 Environmental Management (3) F**

*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.

**801 Scope and Method in Geography (3) F**

*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.

**810 Seminar in Physical Geography (3) S**

*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.

**815 Seminar in Geographic Techniques (3) A**

*Prerequisites:* appropriate upper division course work and classified status in geography. Technique focus to be specified in Class Schedule. May be repeated once when topics vary. Extra fee required.

**820 Seminar in Cultural Geography (3) S**

*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.

**825 Seminar in Economic Geography (3) A**

*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.

**832 Seminar in Urban Geography (3) A**

*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.

**850 Seminar in Regional Geography (3) A**

*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.

**858 Seminar in Environmental and Land Use Planning (3) A**

*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. (Also offered as PA 858.)

**895 Research Project (3) F,S**

*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.

**896 Directed Reading in Geography (3) F,S**

*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.

**897 Research Project Formulation (1)**

*Prerequisites:* classified status in geography and filing of Graduate Approved Program. Development of research project basic to projected M.A. thesis. Formulation of research question, appropriate bibliographic search, database, analytic techniques, final thesis, description for culminating experience. May be repeated twice. CR/NC grading only

**898 Master's Thesis (3) F,S**

*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.

**899 Special Study (1-3) F,S**

*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****100 Introduction to Geology (3) [GE] F,S**

Principles of geological interpretation; earth materials, crustal history of the earth, origin and evolution of life; geologic time, evolution of landscape. Designed for the general student.

**101 Introduction to Geology Laboratory (1) [GE] F,S**

Investigating earth phenomena including rock and mineral studies, geological interpretation in the field, reading topographic maps, understanding local geologic hazards, landscape interpretation. Designed to accompany or follow GEOL 100. Extra fee required.

**102 Introduction to Oceanography (3) [GE] F,S**

Principles and components of the dynamic ocean system. Formation of ocean basins, oceanic influences on climate; currents; waves and tides; human relationship to and impact on the ocean; resources. Designed for non-science majors. (Also offered as METR 102.)

**103 Introduction to Oceanography Laboratory (1) [GE] F,S**

Wave forming and dissipation processes; bottom topography and its meaning; variability in marine life; measurement techniques to discover how the ocean system works and how it relates to human activities. Designed to accompany or follow GEOL 102. Extra fee required. (Also offered as METR 103.)

**105 History of Life (3) [GE] F,S**

Origin and early development of life; evolution of life through geologic time; extinction and replacement of organisms.



**110 Physical Geology (4) [GE] F,S**

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.

**115 Historical Geology (3)**

*Prerequisite:* GEOL 110. History of the earth: origin of the continents, oceans, and atmosphere; origin and evolution of life; methods and concepts used to decipher the geologic record. Classwork, 2 units; laboratory and fieldwork, 1 unit. Extra fee required.

**120 Geologic Techniques and Problem Solving (2)**

*Prerequisite:* GEOL 110 or equivalent. Geological analysis, including project design, library research, field and laboratory procedures, statistics, technical writing, graphical constructions, and oral presentations. Classwork, 1 unit; laboratory and fieldwork, 1 unit.

**270 Environmental Geology (3) [GE] F,S**

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.

**272 Earthquakes and the San Andreas Fault (3) [GE] F,S**

Earthquakes as environmental hazards with focus on the San Andreas and other Bay Area faults. Relationship of earthquakes to plate boundaries, prediction, and seismic safety procedures. Classwork, 2 units; laboratory and fieldwork, 1 unit. Designed for non-science majors.

**302 The Violent Earth (3) [GE] F,S**

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.

**305 Energy and Its Environmental Issues (3) [GE] F,S**

*Prerequisite:* consent of instructor. Energy and its conservation; society's challenge for today and the future. Resources such as petroleum, nuclear, solar, geothermal, and hydroelectric. Designed for non-science majors. Classwork, 2 units; laboratory, 1 unit.

**309 Investigating Land, Sea, and Air Interactions (3)**

*Prerequisites:* completion of one GE Segment IIA: physical science course and one Segment IIB: biological science course. Enrollment priority given to liberal studies majors. Active investigation of earth, ocean, and weather phenomena and issues in the context of the San Francisco Bay region, applying basic physical principles and taking an interdisciplinary perspective. (Also offered as METR 309. May not be repeated under alternate prefix.)

**310 Planetary Climate Change (4)**

*Prerequisites:* upper division standing; 12 units of science coursework, including at least 6 units of physical, earth, or space science. Interdisciplinary investigation of past, present, and future climates of Earth, Mars, and Venus. Scientific principles and technologies that have contributed to our rapidly evolving understanding of climate change. Classwork, 3 units; laboratory, 1 unit. (Same as METR 310.)

**345 Geosciences and the Arts (3)**

*Prerequisite:* course in either the arts or science. Connections between the arts and geosciences, utilizing the broad spectrum of the arts as a perspective from which to investigate the earth and understand fundamental geologic concepts. Classwork, 2 units; fieldwork, 1 unit.

**350 Geology of the National Parks (3) [GE] F,S**

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.

**352 Geological Excursions (1)**

*Prerequisites:* geology course and consent of instructor. Geology of the San Francisco Bay Area and parts of Northern California: field excursions to areas that illustrate the region's dynamic geologic evolution. Designed for prospective science teachers. Laboratory and fieldwork.

**356 Geology of California (3) [GE] F**

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.

**400 Physical Geology in the Field (1)**

Laboratory.

**402 Coastal Geology in the Field (1)**

*Prerequisite:* GEOL 110 with a grade of B or better. Coastal geology in nature's outdoor laboratory. Topics depend on specific locations of field excursions. Fieldwork and classwork, 1 unit.

**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.

**415 Computer Techniques in Geology (2) F**

*Prerequisite:* GEOL 110 or consent of instructor. Use of computers in geology. Spreadsheet applications; graphics software; web site design; tools applicable to geologic problem-solving. Classwork, one unit; laboratory, one unit.

**420 Mineralogy (4) F**

*Prerequisites:* GEOL 110, CHEM 115, and satisfactory standing in the geology major, or consent of instructor. (CHEM 115 may be taken concurrently with con-

sent of instructor). Properties, relationships, origin of minerals; identification of common minerals by physical and chemical tests. Classwork, 2 units; laboratory and fieldwork, 2 units.

**426 Petrology (4)**

*Prerequisites:* GEOL 420, CHEM 115, and satisfactory standing in the major, or consent of instructor. Occurrence and classification of common igneous sedimentary and metamorphic rocks. Megascopic and microscopic identification of rocks and their origin. Classwork, 2 units; laboratory and fieldwork, 2 units.

**430 Structural Geology (4) F**

*Prerequisites:* GEOL 115, 426, MATH 107, and satisfactory standing in the geology major, or consent of instructor. 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.

**440 Paleontology (3)**

*Prerequisites:* GEOL 115 and satisfactory standing in the geology major or consent of instructor. General paleontology including invertebrates, vertebrates, and plant groups. Classwork, 2 units; laboratory and fieldwork, 1 unit. Extra fee required.

**450 Geomorphology (4) F**

*Prerequisite:* GEOL 110 or consent of instructor. Landscapes, their geologic evolution, and the processes which create and modify them. Classwork, 3 units; laboratory and fieldwork, 1 unit.

**452 Coastal Processes (3)**

*Prerequisite:* GEOL 102, senior standing, or consent of instructor. Physical and biological processes responsible for the development and evolution of coastal landforms. Major coastal environments with emphasis on local conditions. Paired with GEOL 752. Students who have completed GEOL 752 may not take GEOL 452 for credit. Classwork, 2 units; laboratory and fieldwork, 1 unit.

**454 Quaternary Geology (3)**

*Prerequisite:* GEOL 110, senior standing, or consent of instructor. Pleistocene and Holocene environments and their geomorphic and stratigraphic record. Landform evolution, 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.

**456 Soils Geology (3)**

*Prerequisite:* GEOL 110 or consent of instructor. Formation, taxonomy and evolution of soils: physical properties, soil types and profile development, and the role of soils in land form evolution. Soil profile interpretation used to unravel recent geologic processes and their environmental implications. Classwork, 2 units; laboratory and fieldwork, 1 unit. (Formerly GEOL 476.)

**460 Sedimentology and Stratigraphy (4)**

*Prerequisites:* GEOL 115, GEOL 120, GEOL 420, or consent of instructor. Sedimentary particles and pro-

cesses, depositional environments, principles of stratigraphic correlation, and basin analysis. Classwork, 2 units; laboratory and fieldwork, 2 units.

#### 465 Physical Oceanography (3) F

*Prerequisites:* GEOL 102, MATH 226, PHYS 220/222 (may be concurrent), senior standing, or consent of instructor. Physics of the ocean environment: 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 GEOL 765. Students who have completed GEOL 765 may not take GEOL 465 for credit. Classwork, 2 units; laboratory, 1 unit. (Also offered as METR 465. May not be repeated under alternate prefix.)

#### 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.

#### 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; fieldwork, 1 unit.

#### 474 Engineering Geology (3) A

*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.

#### 475 Hydrogeology (4)

*Prerequisite:* graduate or senior standing and GEOL 110 or upper division engineering course 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.

#### 476 Groundwater Contamination (3)

*Prerequisite:* GEOL 475 or consent of instructor; CHEM 111 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.

#### 480 Geochemistry (3) A

*Prerequisites:* GEOL 420, CHEM 115, or consent of instructor. Application of chemical principles to geologic problems. Distribution of the elements in the earth. Geologic history of seawater and the atmo-

sphere. Chemical aspects of weathering and sedimentation.

#### 485 Ore Deposits (4)

*Prerequisites:* GEOL 426 and satisfactory standing in geology major, 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. (Formerly GEOL 470.)

#### 590 Seminar in Geosciences (2)

*Prerequisite:* GEOL 110 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

#### 642 Watershed Assessment and Restoration (4)

*Prerequisites:* GEOG 101 or GEOL 120, GEOG 603, or consent of instructor. For course description, see GEOG 642. (May not be repeated under alternate prefix.)

#### 693 Cooperative Education Program (6 or 12)

*Prerequisites:* ENG 114, SPCH 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.

#### 693 Cooperative Education Program (6 or 12)

*Prerequisites:* ENG 114, SPCH 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.

#### 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.

#### 695 Field Methods in Geology (2) S

*Prerequisites:* GEOL 426, 430, 460, and satisfactory standing in the geology 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.

#### 698 Senior Research and Thesis (2)

*Prerequisites:* senior standing and consent of instructor. An independent research project involving study in the laboratory or field. A detailed written report of the work must be submitted to and approved by department faculty.

#### 699 Special Study (1-3) F,S

*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

#### 700 Seminar in Applied Geosciences (3)

*Prerequisites:* graduate status. Interdisciplinary topics to explore connections among the geosciences. (Also offered as METR 700. May not be repeated under alternate prefix.)

#### 701 Research Methods in Applied Geosciences (3)

*Prerequisite:* GEOL/METR 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. (Also offered as METR 701.)

#### 702 Quantitative Methods in Applied 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. Classwork, 2 units; laboratory and fieldwork, 1 unit. (Also offered as METR 702. May not be repeated under alternate prefix.)

#### 752 Coastal Processes (3) A

*Prerequisites:* graduate or senior standing, and GEOL 102. For course description, see GEOL 452. Paired with GEOL 452. Students who have completed GEOL 452 may not take GEOL 752 for credit. Classwork, 2 units; laboratory and fieldwork, 1 unit.

#### 754 Quaternary Geology (3)

*Prerequisites:* graduate or senior 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.

#### 761 Applied Sedimentology (3) A

*Prerequisites:* graduate or senior standing, and GEOL 460. Techniques for characterizing rock, sediment, and soil found in outcrops, cores, fault trenches, or soil pits. Techniques include field descriptions, sequence stratigraphy, petrography, and geophysical logging and surveying. Classwork, 2 units; laboratory and fieldwork, 1 unit.

#### 765 Physical Oceanography (3) F

*Prerequisites:* graduate or senior standing; GEOL 102, MATH 226, PHYS 220/222 (may be concurrent); or consent of instructor. For course description, see GEOL 465. Paired with GEOL 465. Students who have completed GEOL 465 may not take GEOL 765 for credit. Classwork, 2 units; laboratory and fieldwork, 1 unit.

#### 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.

#### 774 Problems in Engineering Geology (3)

*Prerequisites:* graduate or senior standing, and GEOL 474. Engineering geology focusing on investigation

of local geotechnical problems. Classwork, 2 units; laboratory and fieldwork, 1 unit.

#### 775 Hydrogeology (4)

*Prerequisites:* graduate or senior standing and GEOL 110 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, 2 units; laboratory and fieldwork, 1 unit.

#### 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.

#### 896 Directed Reading in 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.

#### 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.

#### 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.

#### 899 Special Study (1-3)

*Prerequisites:* graduate status in geology; approval of the department and the instructor. Special study in the laboratory or field under the direction of a member. The student must present a written report of the work to the faculty. May be repeated for a total of 3 units.

## GERMAN

### Undergraduate Courses

#### 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.)

#### 102 Second Semester German (5) [GE]

*Prerequisite:* GER 101 or equivalent. Continuation of First Semester German. Partially on-line course. Classroom work MWF and equivalent of two class sessions a week on-line.

#### 201 German for Reading (3) [GE]

Designed for students either with limited or no background in German. Develops ability to read texts in German and prepares students for graduate reading exams.

#### 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.

#### 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.

#### 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.

#### 305 Advanced Grammar and Composition (3) [GE]

*Prerequisite:* GER 206 and 207 or equivalent. Study and practice of grammar structures. Systematic writing practice.

#### 325 Applied German Linguistics: Phonetics and Phonology (3) [GE]

*Prerequisite:* GER 206 and 207 or equivalent. Application of modern descriptive linguistics to the analysis of the phonetic and phonemic systems. Comparative approach German/English. Laboratory practice.

#### 326 Applied German Linguistics: Morphology and Syntax (3) [GE]

*Prerequisite:* GER 206 and 207 or equivalent. Application of modern descriptive linguistics to the study of morphology and syntax of the language.

#### 330 Issues in German Linguistics (3) [GE]

*Prerequisites:* GER 325 and 326 or consent of instructor. Analysis of the forms, functions, and uses of contemporary German. Paired with GER 730. Students who have completed GER 330 may not take GER 730 later for credit.

#### 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.

#### 350 Translation Workshop (3) [GE]

*Prerequisite:* GER 206 and 207 or equivalent. Translating written and spoken texts, using German or English as source languages.

#### 390 German for Business (3) [GE]

*Prerequisites:* GER 206 and GER 207 or equivalents. Acquisition of communication skills for functioning in a German business environment. German business practices and cultural background. Classroom and on-line computer instruction.

#### 401 German Culture and Civilization (3) [GE]

*Prerequisite:* GER 206 and 207 or equivalent. Highlights of German culture and civilization from the beginning to 1918.

#### 502 Contemporary German (3) [GE]

*Prerequisite:* GER 301 or equivalent. 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 later for credit.

#### 510 German Literature I (3) [GE]

*Prerequisite:* GER 206 and 207 or equivalent. Literary development from the Middle Ages through the Age of Goethe.

#### 511 German Literature II (3) [GE]

*Prerequisite:* GER 206 and 207 or equivalent. Literary development from early 19th century to the present.

#### 520 The Age of Goethe (3) [GE]

*Prerequisite:* GER 510 and 511 or equivalent. Goethe's creative works from 1770 to 1832. His poetry, dramas and novels and works of contemporaries. Paired with GER 820. Students who have completed GER 520 may not take GER 820 for credit.

#### 530 Die Deutsche Romantik (3) [GE]

*Prerequisites:* GER 510 and 511 or equivalent. 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. Paired with GER 830. Students who have completed GER 530 may not take GER 830 later for credit.

#### 535 Novellas and Short Stories (3) [GE]

*Prerequisites:* GER 510 and 511 or equivalent. 19th and 20th century novellas and short stories: main trends of literature and of the writers' attempt to portray the human condition. Paired with GER 835. Students who have completed GER 535 may not take GER 835 later for credit.

#### 539 German Literature: 1950 to Present (3) [GE]

*Prerequisite:* GER 510 and 511. Literature in the context of a united Germany. Themes, symbols, and structures in East and West German writers. Paired with GER 839. Students who have completed GER 539 may not take GER 839 later for credit.

#### 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.

#### 590 Topics in German Literature (3) [GE]

*Prerequisites:* GER 510 and 511 or equivalent. Topic to be specified in Class Schedule. May be repeated when different writers or topics are treated.

#### 600 Topics in German Literature and Culture (3) [GE]

Topic to be specified in Class Schedule. Taught in English. (For German major or minor by special permission only.) May be repeated when topics vary.

**612 Thomas Mann in English (3)**

*Prerequisite:* ENG 416 or consent of instructor. Authentic/stylistic study of Mann's greatest writings, his philosophical, humanistic position. Relationship to Joyce, Proust, Kafka, and others. Paired with GER 812. Students who have completed GER 612 may not take GER 812 later for credit.

**614 Crisis and Quest in English (3)**

*Prerequisite:* ENG 416 or consent of instructor. Works by Kafka, Rilke, Musil, Heidegger which reflect deep changes, social dilemmas, new ethic in 20th century. Paired with GER 814. Students who have completed GER 614 may not take GER 814 later for credit.

**615 Faust: Re-Vision in English (3)**

*Prerequisite:* ENG 416 or consent of instructor. From Medieval to Romantic texts Faustian exploitation typified Western life; newer versions require fundamental reevaluation. Paired with GER 815. Students who have completed GER 615 may not take GER 815 later for credit.

**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.*

**700 Seminar in Research Methods (1)**

Problems and methods in research, bibliography, and criticism.

**730 Issues in German Linguistics (3)**

*Prerequisites:* GER 325 and 326. For course description, see GER 330. Paired with GER 330. Students who have completed GER 730 may not take GER 330 for credit.

**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.

**802 BRD Past and Present (3)**

*Prerequisite:* GER 301 or equivalent. For course description, see GER 502. Paired with GER 502. Students who have completed GER 802 may not take GER 502 for credit.

**812 Thomas Mann in English (3)**

*Prerequisite:* ENG 416. For course description, see GER 612. Paired with GER 612. Students who have completed GER 812 may not take GER 612 for credit.

**814 Crisis and Quest in English (3)**

*Prerequisite:* ENG 416. For course description, see GER 614. Paired with GER 614. Students who have completed GER 814 may not take GER 614 for credit.

**815 Faust: Re-Vision in English (3)**

*Prerequisite:* ENG 416. For course description, see GER 615. Paired with GER 815. Students who have completed GER 815 may not take GER 615 for credit.

**820 The Age of Goethe (3)**

*Prerequisites:* GER 510 and 511 or equivalent. For course description, see GER 520. Paired with GER 520. Students who have completed GER 820 may not take GER 520 for credit. GER 820 covers more advanced material and written assignments.

**821 Seminar in Literary Genres (3)**

*Topic to be specified in Class Schedule.* May be repeated when genres vary.

**830 Die Deutsche Romantik (3)**

*Prerequisites:* GER 510 and 511 or equivalent. For course description, see GER 530. Paired with GER 830. Students who have completed GER 830 may not take GER 530 for credit.

**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.

**835 Novellas and Short Stories (3)**

*Prerequisites:* GER 510 and 511 or equivalent. For course description, see GER 535. Paired with GER 535. Students who have completed GER 835 may not take GER 535 for credit.

**839 German Literature: 1950 to Present (3)**

*Prerequisites:* GER 510 and 511. For course description, see GER 539. Paired with GER 539. Students who have completed GER 839 may not take GER 539 for credit.

**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.

**880 Seminar: Individual Authors and Works (3)**

*Individual authors or works to be specified in Class Schedule.* May be repeated for credit when authors or works vary.

**890 Integrative Seminar I (3)**

*Prerequisite:* admission only by consent of graduate adviser. Culminating experience for advanced students of German literature. Literary themes from the Middle Ages to the present.

**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 departmental faculty. Open only to graduate students who have demonstrated ability to do independent work. Enrollment by petition.

**GERONTOLOGY****Undergraduate Courses****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.

**510 Death and Dying in Contemporary Society (3) [GE]**

For course description, see NURS 500.

**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.

**638 Gerontology Seminar (3)**

*Prerequisite:* enrollment in gerontology program and consent of instructor. Must be taken concurrently with GRN 639. Group process in support of gerontology internship: qualitative methods; fieldwork techniques; ethics and problem-solving. Paired with GRN 838. Students who have completed GRN 638 may not take GRN 838 later for credit.

**639 Gerontology Fieldwork (1-3 or 6)**

*Prerequisites:* nine units of gerontology or related courses and/or consent of adviser. Must be taken concurrently with GRN 638. Supervised field experience in a setting appropriate to the student's focus or theme in gerontology.

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

Pursuit of a topic of special gerontological interest while under the supervision of a faculty adviser/instructor. Student's performance is evaluated by written criteria that is agreed upon by the instructor and student.

**Graduate Courses****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.

**710 Aging Processes (3)**

*Prerequisite:* consent of instructor. Current biomedical and physiological processes of aging. Explanatory and predictive powers of gerontological theory.

**715 Aging and Social Intervention (3)**

*Prerequisite:* consent of instructor. Exploration of the variety of public and private agencies and businesses designed to serve an aging population; experience in program development and research grant writing.

**720 Profession of Gerontology (3)**

*Prerequisite:* GRN 500 and consent of instructor. History of gerontology; nature of the profession; issues involved in developing standards and guidelines for licensing and credentialing; familiarity with multiple careers for aging professionals; constructing a

professional resume and individualized job search plan.

#### 725 Ethnogerontology (3)

*Prerequisites:* three units of course work in ethnic studies or equivalent community experience and consent of instructor. Multicultural aging issues; psychological aspects of aging for ethnic/racial subgroups within the U.S. Cultural competence, cohort variations, health differentials, life expectancy/longevity, theoretical perspectives, and methodological implications.

#### 730 Social Work with the Aged (3)

For course description, see S W 842.

#### 735 Ethical Issues and the Aged (3)

Political, social, demographic, and economic contexts which are creating ethical dilemmas for professionals and older adults. Frameworks for ethical decision-making, and develops skills and techniques to address ethical issues in various settings.

#### 740 Long-Term Care Administration I (3)

*Prerequisite:* consent of instructor. Examination of the nature of long-term care (LTC) facilities as living environments for the elderly. Planning methods, implementation skills, evaluation issues unique to LTC facilities serving older adults. Application of OBRA (federal regulations) and Title 22 (state regulations) in operating facilities.

#### 745 Long-Term Care Administration II (3)

*Prerequisite:* consent of instructor. Educational preparation for licensure as long-term care (nursing home) administrators. Domains of practice established by NAB; federally recommended core of knowledge for training nursing home administrators; Omnibus Budget Reconciliation Act (federal regulations); and Title 22 (state regulations).

#### 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.

#### 760 Research Methods in Gerontology (3)

*Prerequisites:* introductory statistics; GRN 705 and 710 or consent of instructor. Research designs and methods, data gathering techniques, measurement and data analysis. Applications of research methods to studies in aging, including longitudinal designs, program evaluations, and needs assessments.

#### 775 Issues in Gerontology (3)

*Topic to be specified in Class Schedule.* May be repeated for a total of 6 units when topics vary.

#### 838 Gerontology Seminar (3)

*Prerequisite:* enrollment in gerontology program and consent of instructor. Must be taken concurrently with GRN 839. For course description, see GRN 638. Paired with GRN 638. Students who have completed GRN 838 may not take GRN 638 for credit.

#### 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.

#### 897 Gerontology Research (1-3)

*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.

#### 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.

#### 899 Special Study (1-3)

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

#### 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. (Also offered as I R/PHIL 315. May not be repeated under alternate prefix.)

#### 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. (Also offered as PHIL 375.)

#### 699 Independent 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

#### 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.

#### 150 Modern Greek I (3) [GE]

For course description, see MGS 150.

#### 151 Modern Greek II (3) [GE]

*Prerequisite:* GRE/MGS 150. For course description, see MGS 151.

#### 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.

#### 365 Intermediate Modern Greek III (3)

For course description, see MGS 365.

#### 430 Attic Oratory (3)

*Prerequisite:* GRE 202 or equivalent. Translation and analysis of selections from Lysias, Demosthenes, Isocrates; historical environment, the nature and types of ancient rhetoric and rhetorical theory. Paired with GRE 730. Students who have completed GRE 430 may not take GRE 730 for credit.

#### 435 Greek Historians (3)

*Prerequisite:* GRE 202 or equivalent. Translation and analysis of selections from Herodotus, Thucydides, Xenophon. Development of historical writing and the nature of literary history. Paired with GRE 735. Students who have completed GRE 435 may not take GRE 735 for credit.

#### 440 Homer (3)

*Prerequisite:* GRE 202 or equivalent. Translation of selections from Homer, Iliad and Odyssey; epic tradition, metre. Paired with GRE 740. Students who have completed GRE 440 may not take GRE 740 for credit.

#### 445 Greek Drama (3)

*Prerequisite:* GRE 202 or equivalent. Translation of plays from Aeschylus, Sophocles, Euripides, Aristophanes, Menander; may focus on single author or genre. Paired with GRE 745. Students who have completed GRE 445 may not take GRE 745 for credit.

#### 450 Plato and Aristotle (3)

*Prerequisite:* GRE 202 or equivalent. Translation of selections from Plato, Aristotle; may focus on single author or work. Paired with GRE 750. Students who have completed GRE 450 may not take GRE 750 for credit.

#### 455 Greek Lyric Poetry (3)

*Prerequisite:* GRE 202 or equivalent. Translation of surviving works from Greek lyric, including Archilochus, Sappho, Corinna, Simonides, and others. Paired with GRE 755. Students who have completed GRE 455 may not take GRE 755 for credit.

#### 460 Hellenistic Prose (3)

*Prerequisite:* GRE 202 or equivalent. Translation of works of Plutarch, Lucian, Pausanias; may include later historians, medical writers, Greek novel. Paired with GRE 760. Students who have completed GRE 460 may not take GRE 760 for credit.

#### 465 Hellenistic Poetry (3)

*Prerequisite:* GRE 202 or equivalent. Translation of works of Callimachus, Theocritus, Apollonius

Rhodium; may focus on one author or genre. Paired with GRE 765. Students who have completed GRE 465 may not take GRE 765 for credit.

**470 Advanced Modern Greek IV (3) A**

*Prerequisite:* GRE/MGS 365 or equivalent. For course description, see MGS 470.

**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 each graduate course in Greek: intermediate Greek or equivalent.*

**730 Attic Oratory (3)**

For course description, see GRE 430. Paired with GRE 430. Students who have completed GRE 730 may not take GRE 430 for credit.

**735 Greek Historians (3)**

For course description, see GRE 435. Paired with GRE 435. Students who have completed GRE 735 may not take GRE 435 for credit.

**740 Homer (3)**

For course description, see GRE 440. Paired with GRE 440. Students who have completed GRE 740 may not take GRE 440 for credit.

**745 Greek Drama (3)**

For course description, see GRE 445. Paired with GRE 445. Students who have completed GRE 745 may not take GRE 445 for credit.

**750 Plato and Aristotle (3)**

For course description, see GRE 450. Paired with GRE 450. Students who have completed GRE 750 may not take GRE 450 for credit.

**755 Greek Lyric Poetry (3)**

For course description, see GRE 455. Paired with GRE 455. Students who have completed GRE 755 may not take GRE 455 for credit.

**760 Hellenistic Prose (3)**

For course description, see GRE 460. Paired with GRE 460. Students who have completed GRE 760 may not take GRE 460 for credit.

**765 Hellenistic Poetry (3)**

For course description, see GRE 465. Paired with GRE 465. Students who have completed GRE 765 may not take GRE 465 for credit.

**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.

## HEALTH EDUCATION

### *Undergraduate Courses*

**100 Integrating University and Self (3)**

Orientation to SFSU, its resources and facilities, and its relevance for personal and professional growth. Life and career goals and lifestyle choices related to healthful living. Educational planning based on personal choices, interests, needs, and aspirations.

**280 Empowering Poor Families to Graduate Out of Poverty (2-3)**

Low-income students with children. Development analysis: education goals, career obstacles, human services policy. Community service learning experience included. Open to all students. May be repeated for a total of 6 units. CR/NC grading only. (Also offered as COUN 280.)

**290 Promoting Positive Health (3)**

Skills and knowledge necessary to promote and maintain positive health. Health and fitness status and the impact of lifestyles on longevity and quality of life.

**300 The Health Education Profession (3) F,S**

*Prerequisite:* completion of critical thinking requirement. Health education profession and public health: definitions, history, qualifications, professional preparation, roles and responsibilities of health educators in the community, schools, and health care settings. Strong emphasis will be placed on writing.

**310 Health in Society (3) [GE] F,S**

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.

**312 Consumer Health (3) [GE]**

Health services and products important to individuals and family members; selection of medical advisers, insurance, agencies; quackery and faddism, budgets, health careers.

**315 Drugs and Society (3) [GE] F**

Physical, psychological, and sociological aspects of drug use and misuse in contemporary society, including community prevention and control programs.

**320 Contemporary Sexuality (3) [GE]**

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.

**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.

**410 Organization and Function of Health Services (3) [GE] F,S**

Health care and delivery of services: identification and function of governmental, private, and volun-

tary organizations; programs in health protection and promotion at local, state, and national levels. Community activities required.

**414 Women's Health-Problems and Issues (3) [GE]**

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.

**415 Health Aspects of Aging (3) [GE] F,S**

*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-medicare. Visitation and communications with older adults.

**417 AIDS: Contemporary Health Crisis (3) [GE] F**

*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.

**418 Environmental Health (3) [GE] F,S**

Current environmental health issues. Socio-political implications and planning intervention strategies. Occupational health, toxic waste management, air and water quality control, and radioactive hazards.

**420 Epidemiology (3) [GE] F,S**

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.

**425 Introduction to Research and Statistics in Health (3)**

Quantitative methods for elementary statistical analysis in research and evaluation in the health field.

**430 Foundations of Community Health Education (3) F,S**

*Prerequisite:* H ED 300 with a grade of C or better. Theoretical framework, concepts, and methods which form the basis for community health education. Communication, group process, community organization, learning, behavior and attitudinal change.

**431 Program Planning, Implementation, and Evaluation (3)**

*Prerequisite:* pass JEPET or ENG 414 and H ED 430 with a grade of B- or better. Senior course and professional preparation in health education program planning, implementation, and evaluation.

**450 Policy Issues in Health Education (3) [GE] F,S**

Selected local, state, national, and international health policy issues. Methods of education and socio-political intervention.

**455 Community Organizing and Community Building for Health (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Dialogue, action and reflection on the meaning of community organizing and community building, social justice, the function of social networks, and principles of non-violent social action. Collaborative leadership, media literacy, and media advocacy.

**480 Fieldwork and Reflective Seminar (3,9) F,S**

*Prerequisites:* H ED 430 and H ED 431 with grades of B- or better or consent of instructor. Directed experiences in community health education through 20 hour per week of fieldwork in health departments, voluntary health agencies, and other community health services.

**500 Values Clarification in Sexuality (3) [GE] S**

*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. (Also offered as HMSX 500.)

**520 Health Promotion in Ethnic Communities (3) F,S**

*Prerequisite:* upper division standing. Health status of ethnic communities in the U.S. Impact of personal and cultural beliefs, lifestyle/behavior patterns, racism, poverty, and health care on individual and group health. Effective health promotion strategies.

**582 Homelessness: A Public Health Perspective (3) [GE] F**

*Prerequisite:* completion of the critical thinking requirement. Homelessness as a major public health problem in the U.S.--its incidence, etiology, consequences, and preventions. Understanding this epidemic and strategies for intervention. Field visit is required. (Also offered as URBS 582.)

**630 Elementary School Health (3) F,S**

*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.

**635 Secondary School Health (1)**

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.

**640 Structural Inequities and Public Health (3)**

*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.

**660 Health Issues of Youth in Schools and Communities (3) F,S**

Health problems and issues of children and adolescents both in and out of schools. School and com-

munity-based approaches to prevention and intervention.

**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.

**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.

**685 Projects in the Teaching of Health Education (1-4)**

*Prerequisites:* advanced undergraduate standing in health education and approval of supervising instructor and department; 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.

**699 Special Study (1-3) F,S**

*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****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.

**811 Health Education Skills Portfolio (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.

**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.

**820 Needs Assessment in Community Health Education (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.

**821 Needs Assessment Practicum (1)**

Must be taken concurrently with H ED 820, H ED 825, and H ED 890. Needs assessment process in the areas of stakeholder analysis, development of community planning team, development of statistical

profiles, data collection methods, and community mapping.

**825 Epidemiology (3)**

*Prerequisites:* course in inferential statistics and graduate status.

**829 Biostatistics and Public Health (3)**

*Prerequisite:* H ED 720. 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.

**830 Program Planning for Community Change (3)**

*Prerequisites:* H ED 810. Must be taken concurrently with H ED 831 and 890. 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.

**831 Community Health Assessment Practicum (3)**

*Prerequisite:* H ED 820. Must be taken concurrently with H ED 830 and H ED 890. Implementation of design and plan for needs assessment. Practice of theory and knowledge through focus groups, key informant interviews and surveys.

**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.

**840 Program Evaluation Design and Research (3)**

*Prerequisites:* H ED 810, H ED 820, and H ED 830. 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.

**841 Program Planning and Evaluation Design Practicum (3)**

*Prerequisites:* H ED 840 and H ED 831. Must be taken concurrently with H ED 890. Practicum in community health program planning and design. Use of findings from community health assessment to develop program plan and evaluation design. Completion of funding proposal to demonstrate competencies to complete goals, objectives, evaluation, and timeline.

**845 Training and Educational Process (3)**

*Prerequisites:* H ED 810 and 815. Adult learning theories: training techniques to conduct programs in health promotion and disease prevention. Developing training frameworks, assessing learners' needs, objectives and methods, evaluating design, and implementing training.

**850 Health Administration and Management (3)**

*Prerequisites:* H ED 742, 712, 756, and 730. Must be taken concurrently with H ED 851 and 890. Course is

designed to help students better understand health program management skills as applied to strategic planning, working with staff, and collaborating with leaders of other health organizations. Includes developing mission statements, identifying financing, and motivating and respecting staff.

### 851 Health Administration Practicum (1)

*Must be taken concurrently with H ED 850.* Practical application of managing health programs and organizations in community settings. Implementing decisions involved in managing organizations focusing on health prevention, promotion, and clinical services.

### 855 Environmental Health (3)

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.

### 890 Master of Public Health Seminar (1)

Group dynamic and development of the value of reflective practice: power relationships, advocacy, creativity, empowerment, conflict resolution, and stress management among others. May be repeated for a total of 6 units.

### 892 Supervised Field Internship (3)

*Prerequisite: H ED 840.* A practice experience requiring students to apply the skills learned after completing 35 units in the MPH. Educational objectives, internship objectives, and the actual placement are initiated by the student in consultation with MPH adviser and course instructor. CR/NC grading only.

### 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.

### 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 6 units.

## HEBREW

### Undergraduate Courses

#### 101 First Semester Modern Hebrew (3) [GE]

For course description, see JS 101.

#### 102 Second Semester Modern Hebrew (3) [GE]

*Prerequisite: HEBR 101 or equivalent.* For course description, see JS 102.

#### 201 Third Semester Modern Hebrew (3) [GE]

*Prerequisite: HEBR/JS 102 or equivalent.* For course description, see JS 201.

#### 202 Fourth Semester Modern Hebrew (3) [GE]

*Prerequisite: HEBR 201 or equivalent.* For course description, see JS 202.

#### 250 Biblical Hebrew Language and Literature (3) [GE]

*Prerequisite: ENG 114.* Biblical Hebrew language through phonology, morphology, grammar, syntax, and the development of reading skills. Readings from Old Testament. May be repeated for a total of 6 units. No prior knowledge of Hebrew required. (Also offered as JS 250.)

## HISTORY

### Undergraduate Courses

#### 110 History of Western Civilization I (3) [GE] F,S

The growth of the political, economic, and cultural institutions of the Western World from the beginnings to the Renaissance.

#### 111 History of Western Civilization II (3) [GE] F,S

From the Renaissance to the present.

#### 114 World History to 1500 (3) [GE]

The world's civilizations from 4500 B.C.E. to 1500 C.E.

#### 115 World History Since 1500 (3) [GE]

The world's civilizations from 1500 C.E. to the present.

#### 120 History of the U.S. through Reconstruction (3) [US] F,S

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. (Page reference for U.S. history requirement can be found in the Index.)

#### 121 History of the U.S. since Reconstruction (3) [US] F,S

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. (Page reference for U.S. history requirement can be found in the Index.)

#### 130 United States History for Foreign Students (3) [US] F,S

The American people from colonial times to the present; the development of American political, social, and economic institutions. (Page reference for U.S. history requirement can be found in the Index.)

*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.*

#### 300 Seminar in Historical Analysis (3) F,S

The nature and sources of historical evidence and the tools and techniques of historical writing and interpretation; the philosophy of history.

#### 302 Doing Local History (3)

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.

#### 313 Comparative History of Love and Sexuality (3) [GE] F

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.

#### 314 Gay, Lesbian, and Bisexual History (3) [GE]

History of gays, lesbians, and bisexuals. (Also offered as HMSX 314. May not be repeated under alternate prefix.)

#### 317 The Holocaust and Genocide (3) [GE]

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. (Also offered as JS 317.)

#### 318 Topics in Comparative History (3)

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

#### 320 Archaic and Classical Greece (3) A

Political, institutional, and cultural history of Greece from the Bronze Age to the end of the Peloponnesian War.

#### 321 Hellenistic Greece (3) A

Political, institutional, and cultural history of Greece from the end of the 5th century to 146 B.C.E.

#### 322 The Roman Republic (3) A

Political, institutional, and cultural history of Rome from the Etruscans to the outbreak of the Civil War of 49 B.C.E.

#### 323 Imperial Rome (3) A

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.).

#### 326 The Byzantine Empire (3)

For course description, see MGS 510. Also offered as CLAS 510. May not be repeated under alternate prefix.

#### 328 Early Christian Church to 313 (3) [GE]

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.

#### 329 Early Christian Church, 313-787 (3) [GE]

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.

**330 The Early Middle Ages (3) [GE] F**  
Society and culture in early medieval Europe, up to the 12th century. (Also offered as HUM 403.)

**331 The High Middle Ages (3) [GE] S**  
Society and culture in medieval Europe from the 12th to the 14th century. (Also offered as HUM 404.)

**334 The Renaissance (3) [GE] F**  
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.

**336 The Reformation (3) [GE] S**  
Causes and progress of the Lutheran Reformation, variations within Protestantism, the Counter-Reformation; political and economic history of the 16th century.

**338 The Age of Louis XIV (3) A**  
Political, economic, social, and intellectual survey of European history from 1648 to 1715.

**340 Europe During the Old Regime: 1715-1789 (3) A**  
Political, economic, social, and intellectual survey of European history from 1715 to 1789.

**342 Europe and the French Revolution (3) [GE] A**  
European history from 1760-1799; the development of the Revolution in France; concurrent revolutionary movements outside of France.

**344 Nineteenth Century Europe (3) [GE] F,S**  
Development of Western Europe from the time of the fall of Napoleon to World War I (1814-1914).

**346 Recent European History (3) [GE] F,S**  
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. (Also offered as I R 346.)

**347 Women in Modern Europe (3) [GE]**  
Social, economic, political, and intellectual life of European women since 1500.

**348 Recent European Intellectual History (3) F**  
European intellectual history from the Enlightenment to the present; analysis of forces that have influenced European development. (Formerly offered as HIST 409.)

**349 Topics in European History (3)**  
*Topic to be specified in Class Schedule. May be repeated when topics vary.*

**373 History of Modern Germany II (3) A**  
Development of German institutions, politics, and ideas from 1871 to the present.

**385 The Russian Revolution (3) [GE] S**  
Crisis and collapse of Imperial Russia, traditions of the Russian revolutionaries, and rise of the Soviet Union of Stalin.

**386 Soviet Russia, the West, and the Cold War (3) [GE]**  
Relations between the Soviets and the West from 1945 to 1991; nuclear arms race and geopolitical conflicts.

**389 European International History, 1848-1918 (3) [GE]**  
International relations of the European states: diplomatic history, including the range of cultural and intellectual contacts among them.

**390 European International History, 1918 to Present (3) [GE]**  
International relations of the European states, diplomatic history: including the range of cultural and intellectual contacts among them.

**400 History of Modern European Imperialism (3) [GE]**  
Theories of imperialism, European public opinion and policies with regard to imperialism; influence of Western practices on non-European societies.

**418 Society and Politics in American History (3) [US] F,S**  
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. (Page reference for U.S. history requirement can be found in the Index.)

**420 American Colonial History (3) S**  
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.

**422 The Founding of the American Nation (3) [GE] F**  
American Revolutionary era, 1763-1823: the Confederation, the Constitution, and political party system.

**424 History of the United States: 1827-1877 (3) [GE] S**  
Internal development and expansion of the American people and the rise of sectional conflict, culminating in the Civil War and Reconstruction era.

**426 History of the United States: 1877-1916 (3) [GE] S**  
U.S. history from 1877 to 1916: impact of industrialization, urbanization, immigration on existing social and political systems.

**427 History of the United States: 1916-1945 (3) F**  
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.

**428 History of the United States Since 1945 (3) F**  
U.S. history since 1945: politics, foreign policy and changing social, economic, and intellectual patterns.

**429 The Sixties (3)**  
For course description, see S S 429. May not be repeated under alternate prefix.

**448 The American West (3) A**  
The trans-Mississippi West in American history and thought: the century from 1846 to 1945.

**450 History of California (3) [GE,CA] F,S**  
California through the Spanish and early American periods to the present. Satisfies the California state and local government requirement. (Page reference for requirement can be found in the Index.)

**461 History of American Foreign Relations (3) [GE] S**  
American foreign policy, 1776 to the present. Major wars and foreign policy crises in America's history; changing principles and attitudes underlying American diplomacy.

**464 American Ethnic and Racial Relations I: 1740-1890 (3) [GE] F**  
Amerindians, African-Americans, Irish Catholics, and Chinese.

**465 American Ethnic and Racial Relations II: 1890-Present (3) [GE] S**  
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.

**467 Women in the U.S. to 1890 (3) [GE] S**  
History of the changing social, economic, political, and intellectual life of women in the U.S., from pre-Columbian times to 1890.

**468 Women in U.S.: 1890-Present (3)**  
History of the changing social, economic, political, and intellectual life of women in the U.S., 1890 to the present.

**469 American Childhoods: Past and Present (3) [GE] F,S**  
American childhoods through time and across the cultures since the 17th century. (Also offered as S S 469.)

**470 The U.S. Constitution to 1877 (3)**  
U.S. constitutional developments from the Magna Carta through Reconstruction. The Constitution as a living instrument, shaping and changing national trends.

**471 U.S. Constitution Since 1877 (3)**  
U.S. Constitutional history from the Reconstruction era to the present. The Constitution as a living instrument, shaping and changing national trends.

**474 History of Labor in the United States (3) A**  
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. (Also offered as ECON/LABR 474.)

**476 American Environmental History (3)**  
Americans' interactions with the physical environment from the European colonial period to the present.

**480 Thought and Culture in America (3) [GE] S**

Thought and culture from colonial times to the present. Intellectual movements and influential texts. (Also offered as HUM 480.)

**482 Religion in America (3) [GE]**

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.

**489 Dynamics of the American City (3) [GE] F,S**

For course description, see URBS 400.

**490 Topics in American History (3) A**

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

**500 Colonial Latin America (3) [GE] A**

Hispanic America from preconquest 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.)

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

Latin America since independence (c. 1825). Histories of Latin American peoples: culture, race relations, women, political oppression and resistance, the economy, and development. (Also offered as ANTH/RAZA/SS 501.)

**520 Central America and the Caribbean (3) [GE] F**

Political, economic, and social development from the colonial era to the present. Contemporary Central America and the Caribbean, especially post-revolutionary Cuba.

**524 History of Mexico (3) [GE] S**

Mexico from colonial times to the present. Development of major economic, social, and political institutions.

**528 History of Brazil (3) [GE] S**

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.

**535 History of Women in Latin America (3) [GE]**

History of the changing roles of women in Latin America from the colonial period to the present. (Also offered as RAZA 533/WOMS 535. May not be repeated under alternate prefix.)

**550 Social Change in Modern Latin America (3) [GE] F,S**

Processes of modernization operative in various Latin American societies. 20th century developments which typify the region as a whole. (Also offered as SS 550.)

**569 Ancient Chinese Civilization (3)**

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.

**570 Imperial China (3) [GE]**

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.

**571 History of Modern China (3) [GE] A**

The rise and fall of the Ch'ing empire, the establishment of the Republic, the Communist Revolution, and its aftermath.

**575 History of Women in China and Japan (3) [GE]**

Social, cultural, intellectual, political, and economic lives of women in China and Japan. (Also offered as WOMS 575.)

**578 History of Japan (3) [GE] F**

The early cultural borrowings from China; the crystallization of feudal society; and the evolution of modern Japan since the Meiji restoration in 1868.

**600 Ancient Near East (3) A**

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

**604 History of the Islamic World, 500-1500 (3) [GE]**

Islamic civilization, culture, and history from 500-1500.

**605 History of the Islamic World, 1500-Present (3) [GE]**

Islamic civilization, culture, and history from 1500 to the present.

**610 History of Africa (3) [GE] F**

African cultures from the Iron Age to 1880 with emphasis on Africa south of the Sahara.

**611 Modern Africa (3) [GE] S**

Rise and decline of European colonization and emergence of contemporary nationalist movements.

**633 Modern Jewish History (3) [GE]**

For course description, see JS 633. (May not be repeated under alternate prefix.)

**635 The Jewish Historical Experience (3) [GE] A**

For course description, see JS 320.

**640 Proseminar in European History (3) F,S**

*Prerequisite: HIST 300. Topic to be specified in Class Schedule.* May be repeated when topics vary.

**642 Proseminar in American History (3) F,S**

*Prerequisite: HIST 300. Topic to be specified in Class Schedule.* May be repeated when topics vary.

**644 Proseminar in World History (3)**

*Prerequisite: HIST 300. Topic to be specified in Class Schedule.* May be repeated when topics vary.

**650 Curriculum and Instruction in Social Science (3) F,S**

For course description, see S S 650.

**660 Computer Methodology for Historians (3)**

*Prerequisite: HIST 300.* Use of computers for on-line research and communication via the Internet, library catalogs, and similar resources.

**661 Introduction to SPSS (3) F,S**

*Prerequisite: HIST 660.* The statistical package for the social sciences (SPSS), creation of databases, and statistical analysis for historians.

**680 Archives or Historical Agency Internship (3-4) F,S**

*Prerequisites: major in history and consent of department chair.* Internship with an archive or other historical agency. Development of knowledge, experience, and training in archival or historical agency work. May be repeated once; 7-unit limit in either HIST 680 or 880.

**681 Community Service Learning in the Schools (3)**

For course description, see S S 681. May be repeated for a total of 6 units.

**690 Editing and Publishing the History Journal (1-4) F,S**

*Prerequisite: HIST 300.* 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.

**697 Honors Thesis (3) F,S**

*Prerequisite: HIST 660 (may be taken concurrently).* Tutorial leading to an honors project or thesis based on study of a topic. Topic to be determined by student and faculty member.

**698 Directed Reading in History (3) F,S**

Directed reading in selected areas of history under the supervision of a faculty member.

**699 Special Study (1-4) F,S**

*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.*

**700 History as a Field of Knowledge (3) F,S**

Seminar in the problems in the historical inquiry and facilities designed to prepare master's candidates for research and teaching.

**701 The Historiography of World History (3)**

*Prerequisite: HIST 700.* Seminar examining the varieties of world history writing since World War II. Emphasis on the new world history approaches since the 1970s.

- 710 Seminar in Ancient and Medieval History (3)** S  
*Topic to be specified in Class Schedule.* Reading knowledge of one or more foreign languages is expected. May be repeated once when topics vary.
- 730 Seminar in Early Modern European History (3)** F  
*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.
- 740 Seminar in the History of Europe Since 1815 (3)** S  
*Topic to be specified in Class Schedule.* Reading knowledge of one or more foreign languages is expected. May be repeated once when topics vary.
- 780 Seminar in American History To 1877 (3)** F  
*Topic to be specified in Class Schedule.* May be repeated once when topics vary.
- 790 Seminar in American History Since 1877 (3)** F,S  
*Topic to be specified in Class Schedule.* May be repeated once when topics vary.
- 800 Selected Themes in American History (3)** A  
*Topic to be specified in Class Schedule.* May be repeated when topics vary.
- 805 Seminar in the History of Women (3)** S  
*Topics in the history of women and feminism to be specified in Class Schedule.* May be repeated when topics vary.
- 830 Seminar in Latin American History (3)** S  
*Topic to be specified in Class Schedule.* May be repeated once when topics vary.
- 840 Seminar in Asian History (3)** F  
*Topic to be specified in Class Schedule.* May be repeated once when topics vary.
- 850 Topics in World History Since 1500 (3)**  
*Prerequisite: HIST 700. Topic to be specified in Class Schedule.* May be repeated for a total of 6 units when topics vary.
- 880 Archives or Historical Agency Internship (3-4)** F,S  
*Prerequisite: consent of department chair.* For course description, see HIST 680.
- 890 Editing and Publishing the History Journal (1-4)** F,S  
*Prerequisite: HIST 700.* For course description, see HIST 690.
- 896 Directed Reading in History (3)** F,S  
 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.
- 898 Master's Thesis (3)** F,S  
*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.

- 899 Special Study (1-4)** F,S  
*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

- 380 Holistic Health: Western Perspectives (3)** [GE]  
 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.
- 381 Holistic Health: Eastern Perspectives (3)** [GE]  
 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.
- 382 Holistic Health and Human Nature (3)** [GE]  
 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.
- 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.
- 420 Chinese Body-Mind Energetics (4)** [GE]  
*Prerequisite: either HH 380, 381, 382, 383, or consent of instructor.* Patterns of health, energetic perspectives; nature of qi energy and meridians; activating and balancing qi; body-mind energetic practices: acupressure, breathing exercises, meditation, etc. Laboratory.
- 430 Foundation of Biofeedback and Self-Regulation (4)** [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. Electromyographic, thermal, electrodermal, and electroencephalographic feedback techniques and self-practice of autogenic training. Classwork, 3 units; laboratory, 1 unit.

## 433 Introduction to Autogenic Training (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.

## 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.

## 540 Imagery and Meditation 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

## 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.

## 650 Anthroposophical Healing Studies (3)

*Prerequisites: HH 380, HH 381, HH 382, or HH 383, or consent of instructor.* Principles and practices of health from an anthroposophical medicine perspective. Applications derived from Waldorf education, biodynamic agriculture, and eurythmy, all rooted in western thinking and evidence-based medicine.

## 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 6 units.

## 680 Holistic Health Internship Seminar (2)

*Prerequisite: approval by holistic health adviser.* Must be taken concurrently with HH 681. Issues, problems, and guidelines of practicing holistic health effectively.

## 681 Holistic Health Internship (3)

*Prerequisite: approval by holistic health adviser.* Must be taken concurrently with HH 680. Practicum and intern experience in holistic health, including practice in settings such as biofeedback clinics, traditional Chinese medical clinics, schools, colleges, hospitals, health centers, and work settings.

**690 Seminar: Psychophysiology of Healing (3) [GE]**

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.

**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***Undergraduate Courses***100 Introduction to Hotel Management (1)**

Hotel management: a total approach to hotel and motel operations; forces shaping the hotel business. Broad range of employment possibilities and opportunities in the hospitality industry.

**101 Introduction to Restaurant and Institutional Foodservice Management (1)**

Trends and developments in commercial and institutional foodservices; structure of national foodservice systems; career opportunities.

**102 Introduction to Commercial Recreation and Resort Management (1)**

Commercial recreation, resort, and tourism industry. Philosophy of programs, marketing and management of leisure enterprises. Range of commercial operations such as resorts, theme parks, spas, cruise ships.

**120 Legal Aspects of Hospitality Management (3)**

*Prerequisite:* 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.

**200 Hospitality Management Internship (2)**

*Prerequisites:* consent of instructor, department chair, and business sponsoring the internship. Coordinated hospitality training. Individual conferences with instructor on a regular basis. Operational report required. CR/NC grading only.

**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.

**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. (Also offered as CFS 351. May not be repeated under alternate prefix.)

**352 Foods, Production, and Service (3) [GE]**

*Prerequisite:* ENG 214. For course description, see CFS 352. (Also offered as DFM 352. May not be repeated under alternate prefix.)

**353 Foodservice Systems Management (3)**

*Prerequisite:* upper division standing. For course description, see CFS 353. (Also offered as DFM 353.)

**364 Hotel Management Information Systems (3)**

*Prerequisites:* ACCT 101, ISYS 263 or pass computer information systems proficiency test. Management information systems in the hospitality industry. Understanding of computer systems and application software commonly found in the hospitality industry.

**415 Hospitality Management Internship (3)**

*Prerequisites:* consent of instructor and business position. Experience in hospitality management with academic analysis. Principles, theory, and practice applied to the hospitality industry. Individual conferences with instructor. Major report required.

**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.

**448 Management of Quantity Food Purchasing and Production (3)**

*Prerequisites:* HM 250, 253. For course description, see DFM 458. Students may not take the course a second time under an alternate prefix.

**458 Revenue and Cost Control for Hotels (3)**

*Prerequisite:* ACCT 101. The uniform system of accounts used in the hospitality industry. Yield management; room rates; food, beverage, and labor cost control.

**557 Restaurant and Catering Management (3)**

*Prerequisites:* HM 352 and 353. For course description, see CFS 557. (Also offered as DFM 557. May not be repeated under alternate prefix.)

**560 Hospitality Human Resource Management (3)**

*Prerequisite:* MGMT 405 or consent of instructor. Functions of personnel in foodservice, lodging, and tourism: planning, recruitment, selection, performance appraisal, information systems, and recent legal issues.

**561 Hotel Operations (3)**

*Prerequisites:* ENG 214 or equivalent; ACCT 100; ISYS 263 or pass computer information systems proficiency exam. Principles, practices, and procedures related to the operation of hotel facilities. Hotel marketing strategies, reservation systems and operations, housekeeping, accounting, and income control.

**563 Property Management in Hotel Operations (3)**

*Prerequisites:* HM 100, 101, 102. Management principles relative to the maintenance of public dining and lodging facilities. Systematic control of spaces to safeguard health and utilize available aesthetic values.

**567 Hospitality Internship (3)**

*Prerequisites:* upper division standing and admission to certificate program in hospitality management. For international and non-matriculated students. Field experience in hotel/lodging, restaurant/foodservice, and recreation/resort business. May be repeated for a total of 18 units. CR/NC grading only.

**590 Integrated Seminar in Hospitality Management (3)**

*Prerequisites:* HM 120, 200, 353, FIN 350, MKTG 431. Integration of disciplines within hospitality management. Application of theoretical knowledge and trends. Development of conceptual, analytical, decision-making, and evaluative skills.

**595 Selected Topics in Hotel Administration (3)**

*Prerequisite:* HM 560, MKTG 431. Major issues facing the hotel industry. Strategies to minimize or maximize the issues.

**680 Hospitality Management Integrative Seminar (3)**

*Prerequisites:* upper division standing and admission to Certificate in Hospitality Management. Selected topics such as hotel/lodging, restaurant/foodservice and recreation/resort management. May be repeated for a total of 6 units.

**699 Special Study (1 or 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.

**HUMAN SEXUALITY STUDIES***Undergraduate Courses***300 Introduction to Human Sexuality (3)**

*Prerequisite:* upper division standing or consent of instructor. The field of human sexuality studies.

**301 Introduction to Lesbian, Gay, 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.

**314 Gay, Lesbian, and Bisexual History (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. For course description, see HIST 314. May not be repeated under alternate prefix.

**320 Sex and Relationships (3) [GE]**

For course description, see PSY 320.

**326 Work and Leadership Issues of Bisexuals, Lesbians, and Gays (3)**

*Prerequisite:* ENG 114. The public lives of bisexual, lesbian, and gay people are addressed within the world of work. (Also offered as COUN 326.)

**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.

**355 Homosexuality as a Social Issue (3)**

For course description, see S S 350.

**369 Philosophical Issues in Sexuality (3) [GE]**

For course description, see PHIL 369.

**388 Sex and Colonialism (3)**

*Prerequisite:* upper division standing. Anthropological literature on colonialism and colonial policies: their effect on the sexual conduct of the colonized peoples. Also offered as ANTH 388. May not be repeated under the alternate prefix.

**400 Variations in Human Sexuality (3) [GE]**

Variations in sexuality: sexual identity, relationships, behavior, and fantasy; identification of personal and social problems associated with varied sexual lifestyles. (Also offered as PSY 450.)

**401 Discussion of Sexual Variations (1)**

*Prerequisite:* concurrent or prior enrollment in HMSX 400 or PSY 450. Expanded discussion of issues raised in lectures, speaker presentations, and films in HMSX 400/PSY 450. May include new materials and issues appropriate to small group discussions and the exploration of personal, social, and political issues. (Also offered as PSY 454.)

**402 Advanced Topics in Bisexual, Gay, and Lesbian Studies (3)**

*Prerequisite:* HMSX 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.

**405 Queer Art History (3) [GE]**

For course description, see ART 403.

**421 Homophobia and Coming Out (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. For course description, see S S 421.

**436 The Development of Femaleness and Maleness (4) [GE]**

For course description, see PSY 436.

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

*Prerequisites:* ANTH 120 and upper division standing or consent of instructor. For course description, see ANTH 415.

**455 Sex, Power, and Politics (3)**

For course description, see S S 455.

**456 Psychology of Human Sexual Behavior (3) [GE]**

For course description, see PSY 456.

**457 AIDS: Anthropological Perspective (3)**

*Prerequisite:* 1 ANTH or 1 HMSX course or consent of instructor. For course description, see ANTH 457. May not be repeated under alternate prefix.

**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.

**469 Sex and Morality (3) [GE]**

Ethical theory and its applications to sexual conduct, research, and therapy. Fundamentals of moral augmentation; develop ability to deal intelligently with complicated, morality-laden issues associated with sexuality.

**470 Sex and the Net (3) [GE]**

*Prerequisite:* HMSX 300 or consent of instructor. Social, psychological, and educational aspects of sexuality and the Internet.

**500 Values Clarification in Sexuality (3) [GE]**

For course description, see H ED 500.

**530 Gender and Sexuality in Ancient Greece and Rome (3)**

*Prerequisites:* ENG 214 or equivalent; upper division standing or consent of instructor. For course description, see CLAS 530.

**550 Field Service in Human Sexuality Studies (1-3)**

*Prerequisites:* nine units of HMSX 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.

**551 Lesbian and Queer Perspectives in Literature and Media (3) [GE] F**

*Prerequisite:* ENG 114 or equivalent. For course description, see WOMS 551.

**567 Cross-cultural Aspects of Sex and Gender (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. For course description, see ANTH 569.

**569 Sex and the Law (3) [GE]**

For course description, see PHIL 455.

**600 Research on Sexual Identity (3) [GE]**

*Prerequisite:* consent of instructor. Research on sexual identity: gender, sex-roles and sexual orientation. Theories, sampling problems, confidentiality, sensitivity in data collection and analysis. (Also offered as PSY 650.)

**601 Sexuality, Ethnicity, and Health (3)**

*Prerequisite:* HMSX 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.

**604 Literary Aspects of Contemporary Film (5) [GE]**

*Prerequisite:* ENG 214 or equivalent. For course description, see ENG 604.

**633 Gay Love in Literature (3) [GE]**

For course description, see ENG 633.

**635 Western Culture: Queer and Canonical (3)**

*Prerequisite:* ENG 214. For course description, see CHS 635. (Also offered as ENG 634/IAC 635.)

**645 Sex and the City: Race, Lies, and Love in San Francisco (3)**

*Prerequisite:* upper division standing or consent of instructor. For course description, see ETHS 645. (May not be repeated under alternate prefix.)

**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.

**678 Disability and Sexuality (3) [GE]**

*Prerequisite:* HMSX 300 or consent of instructor. Disability and sexuality through individual, societal, cultural, and political lenses.

**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.

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

*Prerequisites:* consent of instructor and program director. Supervised study of a particular issue selected by the student.

**Graduate Courses****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. (Also offered as ANTH 701.)

**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.

**790 Theoretical Background of Sexology (3)**

*Prerequisite:* graduate status or consent of instructor. Theoretical and practical background of sexology, its biomedical and psychological origins from the 19th century to present. (Also offered as PSY 790.)

**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.

**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.

**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.

**810 Seminar in Sexual Identity and Communication (4)**

*Prerequisite: graduate status or consent of instructor.* For course description, see SPCH 725. (May not be repeated under alternate prefix.)

**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.

**891 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.

**895 Research Project in Human Sexuality Studies (3)**

*Prerequisites: HMSX 800, HMSX 801, HMSX 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.

**896 Directed Reading (3)**

*Prerequisite: consent of graduate adviser.* Intensive directed reading in human sexuality studies under the supervision of a faculty member.

**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.

**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 demon-

strated the ability to do independent work. Enrollment by petition. May be repeated for a total of 12 units.

## HUMANISTIC STUDIES

### Undergraduate Courses

**101 First Year Experience in Humanities (1-3)**

Introduction to university life; exploration of questions and methodologies in the study of the humanities; development of skills for academic success. CR/NC grading only.

**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.

**400 The Nuclear World: Evolution of an Impasse (3) [GE]**

For course description, see IR 400.

**430 Selected Topics in Humanistic Studies (3)**

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

**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.

**635 Western Culture: Queer and Canonical (3)**

*Prerequisite: ENG 214.* 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. (Also offered as ENG 634/IAC/HMSX 635.)

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

Individual supervision of independent work on a particular interdisciplinary problem or subject in the humanities chosen by the student.

## HUMANITIES

### Undergraduate Courses

**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.

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

For course description, see ART 205.

**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.

**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.

**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.

**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.

**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.

**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.

**340 Internet in Humanities (3) [GE]**

*Prerequisite: ENG 214 or equivalent.* Resources, literature, and interactive experience of the Internet. Basic techniques, hypertext, cyberpunk, gender issues, virtual realities, artificial life; historical origins of computers and the Internet.

**345 Humanism and Mysticism (3) [GE]**

Comparative study of humanistic and mystical thoughts; ways in which these two traditions have developed and affected human civilization.

**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.

**361 Cultural Expression in Islam (3)**

*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.

**365 Great Figures in the Humanities (3)**

*Individual to be specified in Class Schedule.* May be repeated when topics vary.

**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.

**375 Biography of a City (3) [GE]**

*City to be specified in Class Schedule.* Intellectual, artistic, and social life of a particular city. May be repeated when city varies.

**376 San Francisco (3) [GE]**

Investigation of San Francisco as a center of intellectual, social, and cultural life. Some sections offer field trips and tours.

**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.

**401 Classical Culture: Greece (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. For course description, see CLAS 410. (May not be repeated under alternate prefix.)

**402 Classical Culture: Rome (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. For course description, see CLAS 415. (May not be repeated under alternate prefix.)

**403 The Early Middle Ages (3) [GE]**

For course description, see HIST 330.

**404 The High Middle Ages (3) [GE]**

For course description, see HIST 331.

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

*Prerequisite:* ART 202 or consent of instructor, or consent of Humanities adviser. For course description, see ART 405.

**406 The Creation of the Modern World: Sixteenth to Eighteenth Centuries (3)**

*Prerequisite:* ENG 114 or equivalent. Origins of modernity and the rational, secular subject, through study of 16th, 17th, and 18th century works of art, literature, philosophy, and history, and the alternate conception emphasizing sentiment and the "primitive."

**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.

**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. (Also offered as PHIL 304.)

**412 Derrida and Jewish Tradition (3)**

*Prerequisite:* ENG 114 or equivalent. Postmodern theorists whose critiques of Western thought's reliance on Greek philosophical assumptions draws on the Judaic emphasis on language, hermeneutic, ethics, rather than epistemology, metaphysics. (Also offered as JS 412/PHIL 512.)

**413 Hannah Arendt (3)**

For course description, see JS 413. (Also offered as PHIL 413. May not be repeated under alternate prefix.)

**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.

**425 Thought and Image (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Works in the arts and humanities studied as central expressions of the meanings and values of their respective cultures. Works are paired from differing cultures on a global scale for cross-cultural comparison. HUM 425 and IAC 426 need not be taken in sequence.

**430 Postmodern Criticism (3)**

*Prerequisite:* ENG 114 or consent of instructor. Contemporary critical movements that question fundamental assumptions of the Western humanist tradition and modernist culture: privileged position of subject, subjectivity and knowledge, language and power, relativism and value, social construction of race and gender.

**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. (Also offered as PHIL 432. May not be repeated under alternate prefix.)

**440 Martin Heidegger (3)**

*Prerequisite:* ENG 114 or equivalent. Introduction to the works of Martin Heidegger, an influential thinker of the 20th century, whose critique of the Western humanist tradition influenced the development of existentialism, hermeneutics, linguistic philosophy, and postmodern reinterpretations of art, culture. (Also offered as PHIL 409.)

**450 California Culture (3) [GE]**

For course description, see AMST 410.

**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.

**470 American Autobiography (3) [GE]**

*Prerequisite:* ENG 114. Reading and critical analysis of selected American autobiographies from the colonial period to the late 20th century.

**480 Thought and Culture in America (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. For course description, see HIST 480.

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

For course description, see AMST 310.

**490 American Images: Photography and Literature (3) [GE]**

*Prerequisite:* ENG 114. Selected American photographers and the relationship of their photographs to contemporary literary texts.

**495 Architecture and American Life (3) [GE]**

Artistic and social history of American architecture, relation to the imagination, and role in art and life.

**496 Islam and the Poetics of Space (3)**

*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.

**501 Judaism, Christianity, and Islam (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. For course description, see JS 501. (Also offered as PHIL 501.)

**507 Art of China (3)**

*Prerequisite:* ART 205 or equivalent. For course description, see ART 507. (May not be repeated under alternate prefix.)

**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.

**520 North and South American Cultural Expression (3) [GE]**

Values, ideas, and creative styles of North and South American cultures through comparisons of literary artistic and architectural creations from each culture. (Also offered as RAZA 520.)

**525 Asian Cultures (3)**

*Culture to be specified in Class Schedule.* May be repeated when topics vary.

**526 Culture of Japan (3) [GE]**

*Prerequisite:* ENG 114. Japanese literature, art, architecture, religion, aesthetic theory, and other forms of thought and image studied in the context of the world view of the Japanese.

**528 Culture of Tibet (3)**

*Prerequisite:* ENG 214. Introduction to Tibetan history and religion through the study of selected texts and images. The significance of Tibetan culture in global perspective.

**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.

**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.

**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****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.

**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.

**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.

**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.

**704 Philosophy in the Humanities (3)**

*Prerequisite: consent of graduate major adviser or instructor.* Character and province of philosophy; ways philosophical principles and experience form relationships with other disciplines and experience.

**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.

**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.

**712 Seminar in African Forms and Culture (3)**

*Prerequisite: consent of graduate major adviser or instructor.* Relations of arts and thought to society in Africa. Nature of the relationship among the arts, thought, and society at selected historical moments.

**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.

**720 Humanistic Themes (3)**

*Prerequisite: consent of graduate major adviser or instructor.* Relationships among recurrent ideas, forms, and images as expressed in a variety of humanistic modes.

**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.

**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.

**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.

**895 Special Project (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.

**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.

**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.

**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****198 Information Systems Spreadsheet Make-Up (1)**

*Prerequisite: consent of instructor.* Additional study to make up the spreadsheet component of other-

wise equivalent courses in order to receive full credit. CR/NC grading only. (Formerly BICS 198.)

**199 Information Systems Make-Up (1)**

*Prerequisite: consent of instructor.* Additional study to make up partial equivalents in Information Systems courses. May be repeated for a total of 2 units. (Formerly BICS 199.)

**263 Introduction to Information Systems (3) F,S**

*Prerequisite: BA 110 or equivalent.* 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. (Formerly BICS 263.)

**265 Introduction to Business Computer Programming with C and C++ (3) F,S**

*Prerequisite: ISYS 263 or pass computer information systems proficiency test.* C and C++ languages, including data structures and examples. Programming business applications including design, development, and documentation. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 265.)

**267 Introduction to Business Computer Programming with JAVA (3)**

*Prerequisite: ISYS 263 or pass computer information systems proficiency test.* The JAVA language and its application to business solutions in a stand alone, Intranet and Internet environment. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 267.)

**268 Introduction to Business Computer Programming with C# (3)**

*Prerequisite: ISYS 263 with grade of C- or better or equivalent.* An introductory presentation of the C# language, including data structures and examples. Emphasis on programming business applications including design, development, and documentation.

**271 Introduction to Oracle: SQL and PL/SQL Using Procedure Builder (3)**

*Prerequisite: CSC 210 or ISYS 265 or ISYS 267, with grade of C or better.* For course description, see CSC 271. (Also offered as ENGR 271. May not be repeated under alternate prefix.) (Formerly BICS 271.)

**363 Information Systems for Management (3)**

*Prerequisites: ACCT 101; BA 212; ISYS 263 or pass computer information systems proficiency test.* 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. (Formerly BICS 363.)

**365 Advanced Business Computer Programming with C and C++ (3)**

*Prerequisite: ISYS 265, with grade of C- or better, or ISYS 367, with grade of B- or better.* Advanced presentation of the C++ language, including object-oriented programming. Programming business applications including design, development, and documentation. (Formerly BICS 365.)



**366 Advanced Business Computer Programming with COBOL (3) F,S**

*Prerequisite:* ISYS 365 with grade of C- or better and consent of instructor. Principles and techniques of business computer programming for business applications using the COBOL language. Data structures, file structures, algorithms, and structured programming techniques for business applications. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 366.)

**367 Advanced Business Applications Programming with JAVA (3)**

*Prerequisite:* ISYS 267, with grade of C- or better, or ISYS 365, with grade of B- or better. Advanced JAVA language and its application to developing and implementing business solutions as either stand alone applications, applets, or servlets that can be incorporated into a stand alone, Intranet or Internet environment. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 367.)

**368 Advanced Business Computer Programming with C# (3)**

*Prerequisite:* ISYS 268 with grade of C- or better or ISYS 367 with grade of B- or better. Advanced presentation of the C# language, including object-oriented programming. Emphasis on programming business applications including design, development, and documentation.

**375 Developing Business Applications and Applets Using Java (3)**

*Prerequisites:* ISYS 363 and ISYS 265 with grades of C- or better. Java language and its application for developing and implementing business solutions as either complete applications or applets that can be incorporated into other solutions in both Internet and Intranet environments. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 375.)

**463 Information Systems Analysis and Design (3) F,S**

*Prerequisites:* ISYS 265 or ISYS 267, MGMT 405, and ISYS 363 with grades of C- or better. Analysis and design of computer-based information systems. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 463.)

**464 Database Management Systems (3) F,S**

*Prerequisites:* ISYS 363 and ISYS 365 or ISYS 367 (with grades of C- or better) or CSC 410. Principles, design, and use of database management systems in business. SQL data management language in mainframe and microcomputer environments. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 464.)

**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.

**469 E-commerce Systems Design and Implementation (3)**

*Prerequisites:* ISYS 363, MGMT 405, and one semester of programming, or consent of instructor. Electronic commerce systems including E-commerce models, the technologies behind E-commerce, and planning and implementing E-commerce systems. (Formerly BICS 469.)

**472 The Micro/Mini Business Computing Environment (3) S**

*Prerequisite:* ISYS 365 or ISYS 367 with grade of C- or better. Small-scale computer systems: relationships among machine designs, assembly language, and operating systems for business computing environments. Data representation, machine language, operating systems, program execution, and assembly language programming. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 472.)

**475 Internet and World Wide Web Business Applications (3)**

*Prerequisites:* ISYS 363 and ISYS 365 or ISYS 367 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. (Formerly BICS 475.)

**546 Client/Server Database Applications Development (3)**

*Prerequisite:* ISYS 365 or ISYS 367 with grade of C- or better. Must be taken concurrently with ISYS 464. Fundamental concepts of distributed computing and the architecture and components of client/server information systems; functions and administration of database servers; client/server database application development; web-based database applications. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 546.)

**561 Object-oriented Business Applications Development (3) F**

*Prerequisite:* ISYS 363 with grade of C- or better. Object-oriented design and its relation to business system development life cycles. Database management systems and languages and their use in advanced business applications. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 561.)

**562 Microcomputer Business Applications (3) F,S**

*Prerequisites:* ISYS 363 and one semester of programming with grades of C- or better. Selection, installation, support, and maintenance of microcomputer hardware and software. Methodology for user-driven software development. Spreadsheets, databases. Algorithm development. Fourth generation languages. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 562.)

**564 Information Systems Projects (3) F,S**

*Prerequisites:* ISYS 463, and ISYS 464 or ISYS 562 with grades of C- or better. Analysis, design, and implementation of a complex, computer-based information system. Classwork, 2 units; laboratory, 1 unit. (Formerly BICS 564.)

**565 Distributed Data Processing (3) F,S**

*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. (Formerly BICS 565.)

**567 Information Systems Internship (3) F,S**

*Prerequisites:* ISYS 363, ISYS 365 or ISYS 367, consent of instructor, and completed application form. Provides IS and OS majors the opportunity to participate in a field experience in their chosen concentration. Major report required. (Formerly BICS 567.)

**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. (Formerly BICS 568.)

**573 New Advances in Information Technology (3)**

*Prerequisites:* ISYS 363 and one semester of programming, with grades of C- or better. Rapid adoption of new and innovative information technology (IT) architectures and tools by organizations. Students design and implement an information technology solution.

**675 Current Topics in Information Technology Auditing (3)**

*Prerequisites:* 3.0 GPA in ISYS 365, ISYS 463, ISYS 464, and ISYS 565; ACCT 301, ACCT 302, ACCT 305, ACCT 507, and ACCT 551. Theory and practical skills to perform current platform and application audits on multiple operating systems. Auditing practices in different environments. Paired with ISYS 875. Students who have completed ISYS 875 may not take ISYS 675. (Formerly BICS 675.)

**699 Special Projects in Information Systems (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. (Formerly BICS 699.)

**Graduate Courses****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.

**812 Business Software Development (3)**

*Prerequisites:* BUS 781, BUS 782. Principles involved in management and preparation of business computer applications, planning, development, and implementation. (Formerly BICS 812.)

**814 Seminar in Advanced Computing Applications for Management (3)**

*Prerequisites:* BUS 782, BUS 785, BUS 786. Specification of management information requirements; analysis and laboratory use of commercial computerized management systems; application of analytical software packages. (Formerly BICS 814.)

**862 Seminar in Database Management (3)**

*Prerequisites:* ISYS 812, ISYS/BA 814. Design and management of organizational databases: database management systems, data models, commercial software, database analysis, design and implementation, and database administration. (Formerly BICS 862.)

**863 Seminar in Information Systems Planning and Development (3)**

*Prerequisites:* ISYS 812, BA/ISYS 814. Selection and use of information systems and analysis techniques including structured analysis. Planning and organization of programming and documentation functions. (Formerly BICS 863.)

**864 Seminar in Information Systems Resource Management (3)**

*Prerequisite:* BA/ISYS 814. Principles and practice of managing an organization's information system resources: planning for the information systems function; computing services acquisition and staffing; organizing and controlling the information processing activity. (Formerly BICS 864.)

**865 Seminar in Distributed Data Processing (3)**

*Prerequisites:* BA/ISYS 814. 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. (Formerly BICS 865.)

**868 Seminar in Advanced Multimedia Business Applications Development (3)**

*Prerequisite:* BA/ISYS 814. Methodology and tools for development of multimedia applications for organizational use and consumer titles. Implementation of multimedia applications on the Internet and Intranets. (Formerly BICS 868.)

**871 Seminar in Electronic Commerce Site Design and Management (3)**

*Prerequisite:* BA/ISYS 814. Design, implementation, and management of business-to-business, business-to-consumer, and consumer-to-consumer electronic commerce web sites on the Internet, intranets, and extranets. Construction of an e-commerce web site. (Formerly BICS 871.)

**875 Current Topics in Information Technology Auditing (3)**

*Prerequisites:* 3.0 GPA in ISYS 812, ISYS 814, ISYS 862, ISYS 863, ISYS 865, ACCT 800, ACCT 801, and ACCT 803. For course description, see ISYS 675. Additional project required. Paired with ISYS 675. Students who have taken ISYS 675 may not take ISYS 875 for credit.

**895 Research Project in Information Systems (3)**

*Prerequisites:* BA/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 the Graduate Division before registration. (Formerly BICS 895.)

**899 Special Projects in Information Systems (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. (Formerly BICS 899.)

**INSTRUCTIONAL TECHNOLOGIES***Undergraduate Courses***260 Multimedia I (3)**

*Prerequisite:* completion of one year Step To College Program. Introduction to planning and developing basic multimedia communications, with emphasis on interface, graphics, and navigation design. Students will create a portfolio of work demonstrating basic software competencies. Work experience placements will include school sites and non-profit organizations. May be repeated with consent of instructor.

**261 Introduction to Multimedia II (3)**

*Prerequisite:* ITEC 260. Designed to help Step to College students develop careers using multimedia and emerging technologies. Work experience placements include school sites and nonprofit organizations. May be repeated with consent of instructor for a total of 6 units.

**487 Children and Television (3)**

For course description, see BECA 487.

**601 Computer Fundamentals for Teachers (1)**

*Prerequisite:* senior standing. Students learn computer terminology and operation in preparation for advanced applications courses. Extensive use of microcomputers in a hands-on learning environment. Topics include hardware, software, word processing, and social issues related to computer-based technologies.

**626 Contemporary Developments in Instructional Technologies (1-3)**

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

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

F,S

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***700 Introduction to Instructional Technologies (3)**

Introduction to the field: basic instructional design and major formats of instructional media. Students assess their professional interests to determine personal development paths. Discussion of important career and technological trends. Prerequisite course: cannot be applied to the master's degree. (Formerly ED T 618.)

**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. (Formerly ED T 631.)

**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. (Formerly ED T 627.)

**715 Computer Foundations for Instructional Multimedia (3)**

*Prerequisites:* ITEC 711, 712, or demonstration of computer literacy. Tools and design elements of multimedia. Students learn how to compose the basic building blocks of multimedia presentation--computer files containing text, sound, graphics, and video--using authoring software such as PowerPoint and Astound. Cannot be applied to the master's degree. (Formerly ED T 641.)

**720 Fieldwork in Educational Technology (3-5)**

F,S

*Prerequisites:* 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.

**726 Seminar in Educational Media (3)**

For course description, see BECA 726.

**740 Computer Design of Instructional Graphics (3)**

*Prerequisite:* ITEC 711 or 712. Tools and techniques for creating graphics in support of instruction, focusing on technical skills using pixel-based paint, object-oriented draw, image manipulation, page layout, and computer presentation programs. Primarily for teachers and classroom applications. (Formerly ED T 619.)

**745 Instructional Web Authoring I (3)**

*Prerequisites:* ITEC 711 or 712, and ITEC 715 or 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.

#### **770 Instructional Videography I (3)**

Introduction to the design and production of instructional videos. Students develop and produce video projects of limited scope. Acquisition of technical production competence in visualizing, scripting, aesthetics, shooting, editing, and field testing. Cannot be applied to the master's degree. (Formerly ED T 625.)

#### **780 Instructional Computer Laboratory Networking I (3)**

*Prerequisite:* ITEC 715. Theory and application of internetworking in complex networking: the OSI model, IP addressing, topologies and media, network design and management. Students work collaboratively on developing instructional methods in computer laboratories.

#### **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. (Formerly ED T 700.)

#### **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. (Formerly ED T 717.)

#### **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.

#### **815 Integration of Instructional Computing (3)**

*Prerequisites:* ITEC 710, 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. (Formerly ED T 628.)

#### **816 Computer Resource Specialist (3)**

*Prerequisite:* ITEC 815 or equivalent. Role of computer specialist in schools: conducting technology training and managing computing laboratories and classrooms. Development of computer-based instructional units, using advanced integration techniques. (Formerly ED T 728.)

#### **817 Instructional Computer Laboratory Management (3)**

*Prerequisite:* ITEC 815. Computer supervisors in educational settings: setting up and maintaining equipment, troubleshooting, networking, and managing laboratories. Design physical environments, including computer stations and peripheral devices. In-

structional strategies for individual and group learning.

#### **818 Survey of Educational Multimedia (3)**

*Prerequisites:* ITEC 710, 715, or equivalent. Overview and state-of-the-art demonstrations of multimedia for educational and instructional purposes. Exploration of the concepts of interactivity, interface, and search engines.

#### **820 Instructional Multimedia Authoring I (3)**

*Prerequisites:* ITEC 715, ITEC 770, or equivalents. Development of entry-level technical competence in multimedia authoring. Extensive hands-on experience in the technical aspects of multimedia development (Authorware or Director) in the context of instructional design and educational software development. May be repeated once.

#### **823 Instructional Multimedia Tools (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. (Formerly ITEC 822.)

#### **825 Formative Evaluation for Educational Media (3)**

*Prerequisites:* ITEC 800 and ITEC 801. Evaluation as an integral part of designing and implementing e-learning interventions: plan a study, collect data, analyze data, and write a report recommending improvements.

#### **830 Design of Instructional Multimedia Seminar (3)**

*Prerequisites:* ITEC 820 and consent of instructor. The design of instructional multimedia software or Web sites, emphasizing design aspects (screen and navigation, and 'look and feel') and development processes. Participants produce Web or software instructional projects. (Formerly ED T 740.)

#### **835 Design of Computer-Based Instruction (3)**

*Prerequisites:* ITEC 820, technical multimedia competence, and consent of instructor. Design and development techniques for computer-based instruction: human interface design and user testing of student-developed multimedia programs. Final project includes the production of a CD-ROM with commercial-quality access interface. (Formerly ED T 741.)

#### **840 Advanced Computer Design of Instructional Graphics (3)**

*Prerequisites:* ITEC 740 and 820 or equivalents. Sequenced planning approach to creating graphics in the context of instructional multimedia design: the principles of graphic and screen design. Advanced projects in pixel-based and object-oriented graphics software, as well as PICT, TIFF, and EPS.

#### **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 learn-

ing, multiple intelligences, and cultural influences on cognition. (Also offered as ISED 742.)

#### **845 Instructional Web Authoring II (3)**

*Prerequisite:* ITEC 745. Design and development of Internet sites with platform neutral programs such as Netscape Navigator and Internet Explorer. Create, maintain, and update Web and Internet sites: server configuration and maintenance, shocked movies, and streaming video and audio.

#### **850 Design and Management of Training Projects (3)**

*Prerequisites:* ITEC 800 and 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. (Formerly ED T 718.)

#### **852 Training and Learning in Organizations (3)**

*Prerequisites:* ITEC 800 and 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. (Formerly ED T 737.)

#### **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. (Formerly ED T 727.)

#### **860 Distance Education (3)**

*Prerequisites:* ITEC 801 and 770. Understanding of distance education development and delivery. Exploration of the field through demonstrations of telecommunications facilities, meetings of professional organizations, internet capabilities, and teleconferencing classrooms. Development of an instructional unit delivered via distance education.

#### **865 Emerging Technologies in Instruction (3)**

*Prerequisites:* ITEC 800, 801, and 845. Discussions on how new media and technologies affect teaching and learning processes. Critical examination of the social and educational consequences of new media and technologies: the consideration of identity, community and democracy.

#### **870 Instructional Videography II (3)**

*Prerequisite:* ITEC 770. The design and production of instructional videos and ancillary materials: scripting, production, editing, and post-production techniques, teaming, and budget development. (Formerly ED T 642.)

#### **880 Instructional Computer Laboratory Networking II (3)**

*Prerequisite:* ITEC 780. The advanced application of networking in complex networking environments: the OSI model, IP addressing, topologies and media, network design and management. Student work collaboratively in developing instructional methods.

**894 Creative Work (3)**

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by Graduate Studies before registration. Students must design, develop, and produce an instructional product or work. Students must provide a CD-ROM which contains the instructional product and the design documents. CR/NC grading only.

**895 Field Study (3)**

*Prerequisites:* approval of design proposal by adviser, instructor, and education graduate coordinator. Applied culminating study for award of the master's degree. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by Graduate Studies before registration. Enrollment arranged through College of Education Graduate Office. CR/NC grading only.

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

*Prerequisites:* approval of proposal by adviser, instructor, and education graduate coordinator. Theory-based culminating study for the Master of Arts in Education with Concentration in Instructional Technologies. Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by Graduate Studies before registration. Enrollment arranged through College of Education Graduate Office. CR/NC grading only.

**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.

**INTER-ARTS***Undergraduate Courses***452 Internship in Creative Arts (3)**

*Prerequisites:* senior standing; creative arts major; major department and IAC proposal approval. Internship in professional community arts center, museum, performance center, or other arts affiliation organization. May be repeated for a total of 6 units. CR/NC grading only.

**635 Western Culture: Queer and Canonical (3)**

*Prerequisite:* ENG 214. For course description, see CHS 635. (Also offered as ENG 634/HMSX 635.)

**651 Service Learning in Art Education (2)**

*Prerequisite:* upper division standing or consent of instructor. For course description, see ART 651. May be repeated for a total of 4 units.

**699 Independent Projects in Inter-Arts (1-3)**

*Prerequisites:* consent of supervising instructor and interdisciplinary major adviser. Supervised study of some aspect of interdisciplinary studies in the arts. May be repeated for a maximum of 6 units.

*Graduate Courses***700 20th Century Inter-Arts History (3)**

History and practice of 20th century interdisciplinary arts. Movements such as Dada, performance, multimedia, community art, etc.

**707 Collaboration in Interdisciplinary Arts (3)**

Theory and practice in a variety of dynamic interactive models, negotiations, role changes, creative processes in group collaborations. Students create original interdisciplinary works integrating concepts, images, text, performance, space/environment, sound, varied media.

**710 Contemporary Inter-Arts Theory and Criticism (3)**

Contemporary theory for inter-arts graduate students: identity politics, queer theory, post-colonialism, etc. Combines textual criticism with studio practice.

**730 Intersections I: Narrative and Documentary Expression (3)**

New ways of analyzing and producing creative narrative and documentary work. Theoretical background and exposure to examples of personal essay, appropriation, research forms, and storytelling. May be repeated for a total of 6 units.

**731 Intersections II: Sound Art (3)**

Experimental and interdisciplinary uses of sound as an art form. Theoretical and applied aspects of sonic art; explorations including digital sound manipulation; sound as environments and in installations; new uses of sound in visual media, digital media, and performance. May be repeated once for a total of 6 units.

**732 Intersections III: Video Art (3)**

*Prerequisite:* IAC 300 or equivalent video proficiency. Theory of video art with a focus on the history and current applications of appropriation; deconstruct and understand current media and make theoretically informed appropriated video works. May be repeated once for a total of 6 units.

**733 Intersections IV: Performance Art (3)**

History and theory of interdisciplinary performance as it evolved from feminist, multicultural, and community-based practices. Experimental combination of theatre, dance, film, video, and digital expressions. May be repeated once for a total of 6 units.

**734 Intersections V: New Media (3)**

New media arts technologies and where they intersect with the realm of public expression. Theoretical and historical background as well as practical experience resulting in a final creative project. May be repeated once for a total of 6 units.

**750 Seminar: Contemporary Issues in Inter-Arts (3)**

*Prerequisite:* IAC 700. Topic to be specified in Class Schedule. May be repeated for a total of 9 units as topics vary.

**800 Introduction to Interdisciplinary Arts Education (3)**

New directions concerning creativity, cultural roles of the arts, interdisciplinary learning, model programs, and curriculum design. Integrated and comprehensive arts programs in a variety of learning environments.

**801 Creativity: Theory and Practice (3)**

Theory and practice of creativity in learning, personal development, and artistic expression. Methods and strategies for curricular design and methodology for stimulating creativity.

**802 Intercultural Communication Through the Arts (3)**

Arts as cultural expression. Forms, media, content, and meaning specific to arts of various ethnic and cultural heritages, and multicultural America. Curriculum design and implementation towards arts education in schools, institutions, and communities.

**803 Creativity and New Media (3)**

Theory and use of new media in arts education. Developing methods to lead groups through participatory and individual deconstruction techniques and use of the technology available to make their own media messages in arts education practice.

**850 New Directions in Arts Education (3)**

*Topic to be specified in Class Schedule.* May be repeated for a total of 9 units when topics vary.

**852 Internship in Inter-Arts (3)**

*Prerequisite:* consent of supervising instructor. Directed experience in the experimental/interdisciplinary arts, including research, internships, and field projects. Individually planned and focused exploration and development of a theme. May be repeated for a total of 6 units. CR/NC grading only.

**890 Graduate Seminar (1)**

Dialogue on contemporary directions in arts education and interdisciplinary arts relating to each student's scholarly and creative work. Peer and faculty critiques on each student's work as it evolves throughout the program, leading to the required Culminating Creative Project or Thesis. May be repeated for a total of three units for credit.

**894 Master's Creative Work Project (3)**

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

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

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

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

*Prerequisite:* approval of the graduate adviser. Selected projects in various aspects of the creative arts. May be repeated for a maximum of 6 units.

**INTERDISCIPLINARY SCIENCE***Undergraduate Courses***300 New Horizons in Science (3)**

*Prerequisite:* college course in the biological and physical sciences, or consent of instructor. Lectures on science topics including AIDS, human sexuality, creationism, biotechnology, energy resources, oceanography, the nuclear age, pollution and toxic problems. May be repeated for a total of six units of credit.

**425 Integrated Science (3-15)**

*Prerequisite:* junior standing with a major in the natural sciences. Topic and units to be specified in Class Schedule. Integrated approaches to scientific subjects. May be repeated when topics vary.

**426 Integrated Science Laboratory (1-6)**

Topic and units to be specified in Class Schedule. Integrated approaches to scientific subjects in the laboratory and/or field. May be repeated when topics vary.

**555 Holistic Healing Process (3)**

Topic to be specified in Class Schedule. Laboratory component of lecture course. Involves practical work with oscilloscopes, oscillators, radio-transmitters, ultra-sound, transducers, electrodes, digital and analog systems, and others. Laboratory.

**699 Special Study (1-3) F,S**

*Prerequisites:* approval of the Center for Interdisciplinary Science and the instructor. Special study in the laboratory, field, or library under the direction of a member of the Center. For advanced, superior students majoring or minoring in a science, or majoring in a closely related field. The student must present a detailed written report of the work accomplished to the staff of the center. May be repeated.

*Graduate Courses***720 Scope, Logic, and Methods of Scientific Inquiry (3)**

Comparative study of inquiry in various sciences through development and analysis of key conceptual models, especially general systems theory.

**740 Interdisciplinary Science Research Seminar (3)**

*Prerequisite:* graduate status in science. Methods and techniques in research, examination of background literature; thesis writing and reports.

**897 Research (3) F,S**

*Prerequisite:* graduate status. Independent and original research study under faculty supervision. May be repeated.

**898 Research for Master's Thesis (3) F,S**

*Prerequisites:* CIS 740 and advancement to candidacy for the Master of Arts in Science. Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**899 Special Study (1-3) F,S**

*Prerequisites:* graduate status and approval of the department and instructor. Special study in laboratory, field, or library under the direction of a member of the Center. The student must present a written detailed report of the study to the staff of the center. May be repeated.

**INTERDISCIPLINARY STUDIES IN EDUCATION***Undergraduate Courses***100 General Studies Colloquium (3) F,S**

Awareness and knowledge of the university community—its resources, services, structure. Personal and career counseling.

**150 Orientation to Education (3) F,S**

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.

**160 Data Analysis in Education (3) [GE]**

*Prerequisite:* a score of 550 or above on the Entry Level Mathematics (ELM) examination, or an approved exemption. 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.

**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.

**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.

**585 Cross-cultural Education (3)**

The "multicultural classroom" and of a culturally pluralistic model as an alternative to the present traditional monocultural model.

**691 Study of Selected Topics (1-3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**699 Special Study (1-3) F,S**

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***706 Principles and Methods of Adult and Vocational Education (3) F,S**

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.

**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.

**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.

**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.

**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.

**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.

**736 Leadership and Policy for Community and Non-Formal Education (3) F,S**

Philosophy and theory of critical thinking and participatory leadership for groups of learners both in formal and non-formal, community-based educational organizations.

**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.

**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.

**742 Cognition, Mind, and Learning for Educators (3)**

For course description, see ITEC 842.

**744 Curriculum for Bilingual, Cross-cultural, and Second Language Development (3)**

Linguistic and curricular aspects of bilingual education among linguistically diverse student populations in elementary and middle schools. Organization of curricula that uses a variety of approaches, methods, and materials for bilingual and Specially Designed Academic Instruction in English (SDAIE) classrooms.

**745 Practicum in Multicultural Educational Setting (3) F,S**

*Must be taken concurrently with ISED 744.* Clinical experiences in multicultural, bilingual cross-cultural, or English language development environments; development of materials using appropriate multicultural, bilingual, ESL, or sheltered approaches; demonstration of effective use of teaching strategies and content.

**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.

**748 Culture, Cognition, and Power Issues in Education (3)**

*Prerequisite: ISED 747 (may be taken concurrently).* Implications of culture for cognitive processes and power issues in education. Cross-cultural cognition, race, class, and gender in all educational settings.

**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. (Also offered as E ED 749.)

**750 Language and Culture: Second Language Acquisition in Schools (3)**

Issues and theories related to second language learning and literacy development as well as appropriate strategies to help students learn how to read and write in bilingual classrooms.

**780 Adult Literacy and Basic Education (3)**

Theory and philosophy of adult literacy; cognitive and social dimensions: mother tongue and second language literacy issues; focus on literacy acquisition and use in these contexts: family, school, and workplace.

**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.

**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.

**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.

**797 Seminar in Educational Research (3) F,S**

*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.

**800 Seminar in Instructional Practices and Learning Theory (3)**

*Prerequisite: background in social foundations.* Relation of instructional patterns to learning. Historic genesis; current teaching practices; analysis of assumptions about learning.

**802 Seminar in Human Development and Curriculum (3)**

*Prerequisite: background in social foundations.* Evaluation of curriculum content and process as related to developmental needs, abilities, and experiences.

**804 Design of Innovative Learning Activities (3)**

Development, evaluation, experimentation, and revision of an innovative learning activity for a specified pupil population. Not restricted to teachers.

**830 Seminar in Evaluation in Education (3)**

Research and other current literature pertaining to the role of evaluation in educational processes. Commonly used evaluation techniques, instruments, and their uses in child development and curriculum.

**891 Seminar in Selected Studies (3) F,S**

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

**891 Conference Implementation in Adult Education (1)**

*Prerequisite: ISED 891, Conference Planning in Adult Education.* Preparation of future adult education professionals. Development of planning and facilitating skills based on the framework and principles grounded in the field of adult education.

**895 Field Study (3) F,S**

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**897 Advanced Seminar in Educational Research (3)**

*Prerequisites: ISED 797 and consent of instructor.* Reading and analysis of current empirical research in education.

**898 Master's Thesis (3) F,S**

*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. Oral examination at conclusion of course for M.A. CR/NC grading only.

**899 Special Study (1-3) F,S**

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***200 Visual Communication in Apparel and Interior Design (3)**

*Priority enrollment for ID majors.* For course description, see ADM 200. May not be repeated under alternate prefix.

**240 Color and Design (3) [GE] F,S**

Color and design theories: visual elements and principles of design, their properties and relationships; developing sensitivity to, and judgment of, design. (Formerly CFS 240.)

**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. (Formerly CFS 242.)

**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. (Formerly CFS 243.)

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

*Prerequisite: upper division standing.* For course description, see ADM 300. May not be repeated under alternate prefix. (Formerly CFS 310.)

**340 Human Dimensions in Housing and Interiors (3) [GE] F,S**

*Prerequisite: upper division standing.* 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. (Formerly CFS 542.)

**341 Contemporary Design in Housing and Interiors (3) [GE] F,S**

*Prerequisite:* sophomore standing. Contemporary housing, interiors, and furnishings; designers and design philosophies that have influenced concepts in the 20th and 21st centuries. (Formerly CFS 540.)

**342 Heritage of Housing and Interior Design (3) S**

*Prerequisite:* ENG 114 or equivalent. Residential architecture and furnishings from ancient Egypt to 19th century England. (Formerly CFS 343.)

**343 Housing for People with Special Needs (3) [GE] S**

*Prerequisite:* ID 242 or consent of instructor. 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. (Formerly CFS 347.)

**345 Computer-aided Drafting for Interior Design (3)**

*Prerequisite:* 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. (Formerly CFS 445.)

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

*Prerequisite:* ADM/ID 200 or consent of instructor. Priority enrollment given to ADM/ID majors. For course description, see ADM 366. May not be repeated under alternate prefix. (Formerly CFS 365.)

**440 The Housing Structure and Its Component Parts (3) F**

*Prerequisite:* 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. (Formerly CFS 349.)

**441 Faux Finishes for Interior Design (3)**

*Prerequisite:* ID 240. Faux finishes laboratory covering marbling; tortoise shell; eggshell lacquer; crackle finish; and gold, silver, and copper leafing. (Formerly CFS 442.)

**445 Business Practices for Interior Design (3)**

*Prerequisite:* ID 243. Business practices for interior design: contracts, bookkeeping, and client relations.

**540 The Materials of Interior Design (3) F**

*Prerequisite:* ID 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. (Formerly CFS 341.)

**545 Advanced Computer Aided Drafting for Interior Designers (3)**

*Prerequisite:* ID 345. Advanced study in the use of AutoCAD in interior design: creation of three-dimensional rendered drawing for design develop-

ment and presentations. Classwork, 1 unit; laboratory, 2 units.

**600 Professional Development (3)**

*Prerequisites:* senior standing and passing score on JEPET or ENG 411 or ENG 414. For course description, see CFS 600. (Also offered as ADM 600. May not be repeated under alternate prefix.)

**610 Field Experience in Apparel and Interior Design (2)**

*Prerequisites:* ADM/ID 200, ADM/ID 260, and ADM/ID 300, or consent of instructor. For course description, see ADM 610. Either course may be repeated for a total of 4 units.

**640 Interior Design Solutions—Residential (3) F,S**

*Must be taken concurrently with 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. May be repeated. (Formerly CFS 344.)

**641 Interior Design Solutions—Commercial (3) F,S**

*Must be taken concurrently with ID 540.* 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. May be repeated.

**645 Advanced Interior Design Solutions (3)**

*Prerequisite:* 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. (Formerly CFS 444.)

**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***330 International Business and Multicultural Relations (3) F,S**

*Prerequisite:* one economics course recommended. 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.

**430 Small Business Import/Export Management (3) F,S**

*Prerequisite:* ENG 214. Practical aspects of export and import management by small and medium size businesses. Organization, development of foreign sales, export and import procedures, functions and activities of service organizations.

**517 Legal Environment of World Business (3)F,S**

*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.

**567 Internship in International Business (1-3) F,S**

*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.

**590 International Environmental Analysis (3) F,S**

*Prerequisite:* IBUS 330 (C- or better). Factors affecting the conduct of contemporary business transactions in a number of specific global environments.

**591 Doing Business in Latin America (3) [GE] F,S**

*Prerequisite:* ENG 214. Business in Latin America. Demographics, psychographics, cultural and social values, business and managerial methods and systems. Paired with IBUS 891. Students who have completed IBUS 891 may not take IBUS 591 for credit.

**592 Doing Business in Greater China (3)**

*Prerequisite:* ENG 214. Business in The People's Republic of China, Taiwan, Singapore, and Hong Kong: demographics, psychographics, cultural and social values, business and managerial methods and systems.

**593 European Business (3) F,S**

*Prerequisite:* ENG 214. Business, economic, political, and social conditions affecting commercial conduct in Europe. Opportunities and challenges for investment and trade. Paired with IBUS 855. Students who have completed IBUS 593 may not take IBUS 855 for credit.

**596 Japanese Managerial System and International Competition (3) F,S**

*Prerequisite:* IBUS 330. 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. Paired with IBUS 896. Students who have completed IBUS 596 may not take IBUS 896 later for credit.

**618 International Human Resource Management (3) F**

*Prerequisites:* MGMT 405 and 610. For course description, see MGMT 618.

**659 Introduction to International Business Negotiation (3) F,S**

*Prerequisite:* 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 situa-

tions. (Also offered as MGMT 659. May not be repeated under alternate prefix.)

**681 Seminar in Comparative Management (3)**

*Prerequisite:* IBUS 330. 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.

**690 Global Strategic Management (3) F,S**

*Prerequisites:* IBUS 330, MGMT 405, and FIN 350; FIN 535 recommended. A case studies approach to business strategy, tactics, and decision-making in the multinational enterprise. Interactive affects of governmental and business policies.

**699 Special Study (1-3) F,S**

*Prerequisites:* consent of instructor, adviser, 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.

*Graduate Courses*

**815 Seminar in International Business (3) F,S**

*Prerequisite:* classified graduate status. 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.

**818 Seminar in International Human Resource Management (3) F**

*Prerequisites:* classified graduate status. For course description, see MGMT 818. (May not be repeated under alternate prefix.)

**830 Export/Import Management and Marketing (3) F,S**

*Prerequisites:* classified graduate status. Theoretical and practical aspects of export and import management and marketing by small, medium-sized, and multinational businesses. Organization and development of export management and marketing strategies.

**855 European Business (3) F,S**

*Prerequisite:* classified graduate status. For course description, see IBUS 593. Paired with IBUS 593. Students who complete IBUS 855 may not take IBUS 593 for credit.

**857 Seminar on Business in Greater China (3) F,S**

*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.

**859 International Business Negotiating (3) F,S**

*Prerequisites:* 6 units in SFSU graduate program. For course description, see BUS 859. (May not be repeated under alternate prefix.)

**867 Graduate Internship in International Business (1-3) F,S**

*Prerequisite:* minimum 3.3 GPA. Analysis of experience with an international business or government. Weekly individual conferences with instructor.

**879 Japanese Managerial System and International Competition (3) F,S**

*Prerequisite:* Classified graduate status. For course description, see IBUS 379. Paired with IBUS 379. Students who have completed IBUS 879 may not take IBUS 379 for credit.

**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.

**890 Seminar in International Strategic Management (3) S**

*Prerequisites:* four 800-level courses including two IBUS-related courses. MBAs include two from BA/BICS 814, FIN 819, MGMT 842, MKTG 860. International strategy and structure; analysis of the multinational enterprise, tools and techniques of global industry analysis.

**891 Doing Business in Latin America (3)**

*Prerequisite:* classified graduate status. For course description, see IBUS 591. Paired with IBUS 591. Students who have completed IBUS 591 may not take IBUS 891 for credit.

**895 Research Project in International Business (3) F,S**

*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.

**899 Special Study (1-3) F,S**

*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.

**INTERNATIONAL RELATIONS**

*Undergraduate Courses*

**104 Introduction to World Affairs (3) [GE] F,S**

For course description, see S S 104. May not be repeated under alternate prefix.

**200 International Careers (3) F,S**

*Prerequisite:* ENG 214. Investigation of international career areas. Development of personal "International Career Success Plan" including skills and goal assessment and training, values clarification, and exploration of internship possibilities. Regular appearances of global guest-speaker practitioners. (Formerly I R 300.)

*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.*

**300 International Careers (3) F,S**

Investigation of international career areas. Development of personal "International Career Success Plan" including skills and goal assessment and training, values clarification, and exploration of internship possibilities. Regular appearances of global guest-speaker practitioners. (Formerly IR 304.)

**303 Introduction to Computer Applications in International Relations (1)**

Introduction to software applications used in international relations including spreadsheets, presentation graphics, e-mail systems, Internet, and the World Wide Web. Prepares international relations students to build electronic presentations, digitally gather and analyze information from global sources to fulfill course assignments.

**305 Problems and Controversies in International Relations (3-4) F,S**

*Topic to be specified in Class Schedule.* Current problems and controversies in international relations. May be repeated once as topics vary.

**306 U.S.-Central American Relations (4)**

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.

**307 Culture and Identity in World Politics (4) [GE]**

*Prerequisite:* I R 301. Cultural perspective on world politics and some of its key contemporary issues, such as military conflict, economic globalization, and foreign policy. Historical junctures; development of tools for understanding from cultural standpoint. (Also offered as ANTH 307. May not be repeated under alternate prefix.)

**308 Fundamentals of International Relations Theories, Issues, and Perspectives (4)**

*Prerequisite:* I R 104. Field of international relations: international political, economic, and cultural systems and regimes in world affairs. Theories, processes, problems, and prospects in the international arena.

**309 International Relations Analysis and Application (4) F,S**

*Prerequisites:* I R 104 and I R 200. 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. (Formerly I R 301.)

**310 U.S. Foreign Policy (4) [GE] F,S**

The foreign policy process in American government. Analysis of the institutions in American society which determine our foreign policy.



**312 Introduction to International Political Economy (4)**

*Prerequisite:* I R 309. 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. (Also offered as PLSI 302. May not be repeated under alternate prefix.) (Formerly I R 302.)

**315 Introduction to Global Peace Studies (3) [GE]**

For course description, see GPS 315. (Also offered as PHIL 315. May not be repeated under alternate prefix.)

**320 Foreign Relations of Selected Nation States (4) F,S**

*Topic to be specified in Class Schedule.* Comparison of the foreign policies of various geographically and/or ideologically grouped nation states. May be repeated when topics vary.

**321 Development and Foreign Policy—Africa (4) [GE]**

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. (Also offered as PLSI 321.)

**322 Latin American Policy Analysis (4) [GE]**

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. (Also offered as PLSI 322.)

**323 Middle East: Periphery (4) [GE]**

Concerned with the foreign relations of peripheral Middle East states. Specific foci include the positions of these states on such issues as the Palestinian question, Israeli occupation of the West Bank, the use of terror to effect international policy, etc.

**324 Middle East: Heartland (4) [GE]**

A survey and analysis of the international relations (diplomatic, economic, cultural, political, and military) of selected Arab nations which lie at the geographical and political heart of the Middle East.

**325 Chinese Foreign Policy: Domestic and Foreign (4) [GE]**

A study of the sources of Chinese conduct in world affairs. A comparative analytic framework is tested in this case study. (Also offered as PLSI 325.)

**326 South and Southeast Asia Foreign Relations (4) [GE]**

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.

**327 Europe: Forming a More Perfect Union (4) [GE]**

Comparative foreign policies of the European Union and its key member states. Effort to forge a common

foreign policy; the Union's external relations with the U.S. and Russia.

**328 Domestic and Foreign Policy: Post-Communist Regions (4) [GE]**

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. (Also offered as PLSI 328.)

**329 U.S.-Japan Politics (4) [GE]**

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. (Also offered as PLSI 329.)

**330 World Law (4)**

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.

**331 Global Environmental Crisis (4) [GE]**

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.

**332 International Criminal Law (3)**

For course description, see CJ 505. Classwork, 3 units; fieldwork, 1 unit. (Also offered as CJ 505. May not be repeated under alternate prefix.)

**334 International Organizations: New World Order (4)**

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.

**340 Revolutionary Ideologies in World Politics (4) [GE]**

An examination and comparison of several major political ideologies and their impact on the structure of world politics. Marxism-communism, liberal capitalism, fascism, and derivative ideologies are covered intensively. The correlation between theoretical ideology and political practice is stressed.

**342 Strategy and War (4) [GE]**

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. (Also offered as PLSI 342.)

**346 Recent European History (3) [GE] F,S**

For course description, see HIST 346. (Also offered as PLSI 346.)

**360 Intelligence and Intelligence Agencies (4)**

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.

**361 Terrorism and Covert Political Warfare (4)**

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. (Also offered as CJ 461. May not be repeated under alternate prefix.)

**410 Diplomatic Symposium (4)**

Officers of various foreign consulates in San Francisco analyze crucial world problems from their own nation's perspective. Methods of foreign policy reporting and analysis are examined. May be repeated once for credit.

**430 Israeli Democracy: Politics, Institutions, and Society (3) [GE]**

For course description, see JS 430. (Also offered as PLSI 430.)

**431 Introduction to Model United Nations (2) F**

Introduction to Model United Nations, diplomatic strategy, and rules of procedure. Prerequisite for I R 432. Enrollment in fall semester required in order to enroll in I R 432 and participate in spring Model United Nations conference. May be repeated for a total of 8 units.

**432 Model United Nations (2) [GE]**

*Prerequisites:* I R 431. 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.

**433 Model Arab League (3)**

*Prerequisite:* I R 324. Seminar focusing on selected countries of the Arab world. Students make seminar presentations in assigned topics, and meet several writing requirements. Culminates in student attendance at regional meeting sponsored by the League of Arab States.

**445 Political Geography (4)**

For course description, see GEOG 445. May not be repeated under alternate prefix.

**446 The Multinational Corporation in World Affairs (4)**

Impact of multinational corporation on the foreign policy of industrial and developing nations. Structure and power of multinationals. Discussion and student research on oil, copper (Chile), autos, ITT, GE, VW. Issues: multinational corporation and world government, imperialism, organized labor, world competition convergence.

**450 International Labor (3) [GE]**

*Prerequisite:* LABR 250. For course description, see LABR 550.

**460 Gender and International Relations (3)**

The discipline of international relations through applying a gendered lens to both analytical frameworks and policies. Paired with IR 760. Students who have completed IR 460 may not take IR 760 for credit.

**520 Modernization and Third World Countries (4) [GE]**

For course description, see S S 520. (Also offered as PLSI 520.)

**540 The Rich and the Poor Nations (4) [GE]**

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. (Also offered as S S 540.)

**544 Women in the World (4) [GE]**

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. (Also offered as PLSI/S S 544.)

**550 Proseminar in Foreign Policy Analysis (6) F,S**

*Prerequisites:* I R 200 and all 300-level IR core courses or consent of instructor; pass JEPET or ENG 414. 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.

**555 Learning Outcome Assessment in International Relations (2) F**

*Prerequisites:* JEPET, required courses in the major, completion of basic subjects in G.E. Assessment of desired learning outcomes for the international relations major. Includes preparation of career portfolio, post-testing of international relations knowledge, and self-assessment of learning.

**560 Energy in Global Perspective (3)**

Explores the implications for international relations and for the environment of the current energy production/consumption structure, with special attention to the roles of the U.S. and major producers in the Middle East.

**600 Learning Outcomes Assessment (2)**

*Prerequisites:* international relations majors only; all core requirements must be completed prior to enrollment. Culminating assessment of learning outcomes in skills, knowledge, and ethical perspectives; individualized preparation of portfolios; developmental assessment activities including leadership, interviewing techniques, culture shock awareness, resume preparation, and other self-assessment activities.

**635 Economics of Globalization (3) [GE]**

*Prerequisites:* ECON 100, ECON 101, or consent of instructor. For course description, see ECON 635. (May not be repeated under alternate prefix.)

**640 Field Study in International Relations (1-5)**

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.

**650 Advocates in International Relations: Student Practicum (1-4) F,S**

Research in international relations theories, concepts, and learning alternatives; tutoring and guidance to less advanced students in the major as an assistant to an instructor. Open by petition only. May be repeated for a total of 10 units.

**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****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.

**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. Extra fee required.

**728 International Political Economy (3)**

*Prerequisites:* graduate status and I R 302 and I R 720 or equivalents. 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.

**730 Nationalism vs. Globalism (3)**

*Prerequisite:* graduate status or consent of instructor. The impact of political and economic system change, renascent ethnic nationalism, and growing economic interdependence on nation states. Challenges to political organizations and existent governments as new demands for boundary change and for social and economic benefits are posed. (Formerly IR 747.)

**732 Imperialism (3)**

*Prerequisites:* graduate status and I R 720. An in-depth look at major theories of imperialism--J.A. Hobson's, V.I. Lenin's, and J.Schumpeter's--as well as variations in the interpretation of those theories. Relationships between colonialism, neo-colonialism, and imperialism are also considered.

**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. (Also offered as GEOG 735. May not be repeated under alternate prefix.)

**736 Third World Modernization (3)**

*Prerequisites:* graduate status and I R 720 or equivalent. An interdisciplinary analysis of the major dilemmas of the modernization situation in the third world; i.e., Asia, Africa, and Latin America, including market vs. planning, rural vs. urban, basic needs vs. the environment, self-sufficiency vs. foreign reliance, equal vs. unequal distribution, etc. (Also listed as S S 736.)

**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.

**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.

**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.

**744 The West European Subsystem (3)**

*Prerequisites:* graduate status and I R 720. Investigation of the West European system of nation-states in order to determine the degree to which the process of international integration may be creating a regional supra-national entity. Individual research and seminar discussion.

**745 Latin America (3)**

*Prerequisites:* graduate status and I R 720. The leit-motif 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.

**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.

**747 U.S.-Russia Relations in Eurasia after the Cold War (3)**

*Prerequisite:* I R 720. Background for understanding the context of U.S.-Russia relations in post-Soviet Eurasia. Strategic visions, foreign policy orientations, and security issues in the region, with a special focus on Russian and Western involvements.

**748 Japan in the International System (3)**

*Prerequisites:* graduate status and I R 720. Exploration of the major issues and theories that are offered to explain the rise of modern Japan and the political, economic, and security implications for its foreign policy behavior in today's international system. (Formerly IR 733.)

**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 Koreans, S.E. Asia, India, with Europe, the U.S., and Russia as factors.

**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.

**760 Gender and International Relations (3)**

*Prerequisite:* graduate status. For course description, see I R 460. Students who have completed I R 760 may not take IR 460 for credit.

**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. (Formerly IR 850.)

**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.

**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.

**101 First Semester Italian (5) [GE]**

Understanding, speaking, reading, and writing Italian and Italian culture; language as a communicative medium and carrier of culture.

**102 Second Semester Italian (5) [GE]**

*Prerequisite:* ITAL 101 or equivalent. Continuation of ITAL 101.

**103 Third Semester Italian (3) [GE]**

*Prerequisite:* ITAL 102 or equivalent. Reinforcement of language structure; literary styles and techniques in Italian.

**104 Fourth Semester Italian (3) [GE]**

*Prerequisite:* ITAL 103 or equivalent. Selected reading material in Italian literature.

**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.

**305 Advanced Grammar and Composition (3) [GE]**

*Prerequisite:* ITAL 104 or equivalent. Analysis of grammatical constructions. Exercises in style.

**325 Practical Linguistics of Italian (3) [GE]**

Application of linguistics to the study of Italian sound patterns and structures.

**350 Advanced Oral and Reading Practice (3) [GE]**

Expansion of ability to read and interpret selected plays, poems, and prose writings. May be repeated once when material changes.

**401 Italian Culture and Civilization (3) [GE]**

*Prerequisite:* ITAL 104 or equivalent. Background for literature.

**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.

**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.

**525 Literature of the Risorgimento (3) [GE]**

*Prerequisites:* ITAL 510 and 511 or equivalent. Analysis of texts from representative figures such as Parini, Alfieri, Foscolo, Leopardi, Manzoni, etc.

**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.

**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.

**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.

**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.

**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.

**581 Divina Commedia (3) [GE]**

*Prerequisites:* ITAL 510 and 511 or equivalent. Analysis of selected cantos integrated with relevant information on medieval literature, poetics, scholasticism, classical tradition, and socio-political structure of Dante's world. Paired with ITAL 881. Students completing ITAL 581 may not take ITAL 881 later for credit.

**600 Italian Literature on Film in English (3)**

*Prerequisite:* ENG 416 or consent of instructor. Four modern Italian novels and short stories compared to the films they have inspired. Paired with ITAL 800. Students who have completed ITAL 600 may not take ITAL 800 for credit.

**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***800 Italian Literature on Film in English (3)**

*Prerequisites:* ENG 416 and graduate status or consent of instructor. For course description, see ITAL 600. Paired with ITAL 600. Students who have completed ITAL 800 may not take ITAL 600 for credit.

**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.

**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.

**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.

**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.

**881 Divina Commedia (3)**

*Prerequisites:* ITAL 510 and 511 or equivalents; admission to Italian program or consent of instructor. For course description, see ITAL 581. Paired with ITAL 581. Students completing ITAL 881 may not take ITAL 581 for credit.

**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.

**101 First Semester Japanese (5) [GE]**

Understanding, speaking, reading, and writing modern Japanese.

**102 Second Semester Japanese (5) [GE]**

*Prerequisite:* JAPN 101 or equivalent. Continuation of JAPN 101.

**103 Third Semester Japanese (5) [GE]**

*Prerequisite:* JAPN 102 or equivalent. Intermediate level modern Japanese.

**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.

**250 Intensive Study of Kanji (3) [GE]**

*Prerequisite:* JAPN 101 or equivalent. Individualized study of Kanji. May be repeated for credit. Open to all students.

**251 Advanced Study of Kanji (3) [GE]**

*Prerequisite:* JAPN 250 or equivalent. Kanji at the advanced level. May be repeated once.

**301 Japanese Conversation (3) [GE]**

*Prerequisite:* JAPN 103 and 250 or equivalent. Developing aural-oral skills for conversations at different social levels and situations.

**302 Japanese Reading and Grammar (3) [GE]**

*Prerequisites:* JAPN 103 and 250 or equivalent. Reading modern Japanese. Structural analysis and vocabulary development.

**305 Advanced Conversation and Composition I (3) [GE]**

*Prerequisites:* JAPN 301 and 302 or equivalent. Grammatical analysis. Rhetoric. Oral and written exercises.

**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.

**309 Advanced Readings in Japanese (3) [GE]**

*Prerequisites:* JAPN 301 and 302 or equivalent. Reading modern literary, journalistic, and expository writings.

**325 Practical Linguistics in Japanese (3) [GE]**

*Prerequisites:* JAPN 301 and 302 or equivalent. Application of linguistics to sound patterns and structures.

**330 Proverbs and Idiomatic Expressions in Japanese (3) [GE]**

*Prerequisite:* JAPN 103 or equivalent. The most commonly used proverbs and idiomatic expressions in Japanese.

**350 Introduction to Translation (3) [GE]**

*Prerequisites:* JAPN 250, 301, and 302 or equivalent. Basic techniques, strategies, and issues in the field of non-literary translation using Japanese and English as source languages. Practical exercises include text analysis and development of translation skills.

**390 Business Japanese (3) [GE]**

*Prerequisites:* JAPN 301 and 302 or equivalent. Japanese business communication skills. Readings in economics, politics, and social issues.

**395 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.

**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.

**510 Modern Japanese Literature (3) [GE]**

*Prerequisites:* JAPN 250, 301, 302, and 309 or equivalent. Literary movements and major works of 20th century Japan.

**590 Topics in Japanese Literature (3) [GE]**

*Prerequisites:* JAPN 250, 301, and 302 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.

**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.

**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.

**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***710 Japanese Language Workshops (3)**

Topic to be specified in Class Schedule. May be repeated when topics vary.

**725 Technical Translation (3)**

*Prerequisite:* JAPN 350 or 710 or consent of instructor. Translation strategies for variety of text categories. Application of fundamental techniques and strategies to actual scientific and technical translation.

**730 Introduction to Simultaneous Interpretation (3)**

*Prerequisites:* JAPN 690 and/or JAPN 710 or consent of instructor. Simultaneous interpretation in Japanese. Variety of techniques necessary for simultaneous interpretation, such as shadowing and paraphrasing.

**735 Simultaneous Interpretation (3)**

*Prerequisites:* JAPN 690, 710, and 730 or consent of instructor. Simultaneous interpreting English to Japanese and vice versa.

**750 Seminar in Japanese Linguistics (3)**

*Prerequisite:* JAPN 325 or equivalent. Phonological, morphological, and semantic features of Japanese: current research and problems.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**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.

**897 Research (1-3)**

*Prerequisite:* JAPN 895 or 898 with RP 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.

**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.

**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***101 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. (Also offered as HEBR 101.)

**102 Second Semester Modern Hebrew (3) [GE]**

*Prerequisite:* JS 101 or equivalent. Continuation of first semester modern Hebrew. (Also offered as HEBR 102.)

**201 Third Semester Modern Hebrew (3) [GE]**

*Prerequisite:* JS/HEBR 102 or equivalent. Continuation of modern Hebrew at the intermediate level. (Also offered as HEBR 201.)

**202 Fourth Semester Modern Hebrew (3) [GE]**

*Prerequisite:* JS 201 or equivalent. Continuation of modern Hebrew at the intermediate level. (Also offered as HEBR 202.)

**250 Biblical Hebrew Language and Literature (3) [GE]**

*Prerequisite:* ENG 114. For course description, see HEBR 250.

**300 Introduction to Jewish Studies (3) [GE]**

*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. Paired with JS 700. Students who have taken JS 300 may not take JS 700 later for credit.

**310 Jewish Thought and Culture (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. The manner and process of external/internal influences that move Jewish thought; the matters with which particular Jewish thinkers have concerned themselves. Paired with JS 710. Students who have completed JS 310 may not take JS 710 later for credit.

**317 The Holocaust and Genocide (3) [GE]**

*Prerequisites:* ENG 214 or equivalent, and upper division standing or consent of instructor. For course description, see HIST 317.

**320 The Jewish Historical Experience (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. How Jews interacted with other cultures in a specific historical setting. Jewish struggles for identity through processes of acculturation, cultural synthesis, and differentiation. (Also offered as HIST 635.)

**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. Paired with JS 740. Students who have completed JS 340 may not take JS 740 later for credit.

**350 Jewish Social Responsibility (3)**

*Prerequisite:* ENG 214. 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.

**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. (Also offered as PHIL 514. May not be repeated under alternate prefix.)

**412 Derrida and Jewish Tradition (3)**

*Prerequisite:* ENG 114 or equivalent. For course description, see HUM 412. (Also offered as PHIL 512.)

**413 Hannah Arendt (3)**

Writings of Hannah Arendt, 20th century philosopher and political theorist. Writings include history of philosophy, the Will, theory and practice, evil, origins of totalitarianism, anti-Semitism; studies of Augustine, Marx, Heidegger. (Also offered as HUM/PHIL 413. May not be repeated under alternate prefix.)

**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. (Also offered as PHIL 415.)

**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.

**417 Judaism as Sacred Theatre (3)**

*Prerequisite:* ENG 214 or equivalent. Jewish ritual observance and its relation to Jewish theology in our contemporary culture.

**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, the way it functions, and its main attributes in comparison to other democratic political systems. Ideology, state and religion, and civil liberties. (Also offered as IR/PLSI 430.)

**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. (Also offered as ENG 533/CWL 437. May not be repeated under an alternate prefix.)

**451 American Jewish Literature (3) [GE]**

*Prerequisite:* ENG 214. Contemporary American Jewish poetry, prose, and essays by Grace Paley, Saul Bellow, Philip Roth, Michael Gold, Rebecca Goldstein, Tony Kushner, Max Apple, Philip Levine, and Allen Ginsberg. (Also offered as ENG 451.)

**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. (Also offered as PHIL/HUM 501.)

**509 Jewish Writers in the American Poetry Archives (3)**

*Prerequisite:* ENG 114 or CW 301 or 101. For course description, see CW 509.

**516 Bible and Ethics: The Moral of the Story (3) [GE]**

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*Prerequisite:* ENG 214. 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 CLAS 416/PHIL 551/CWL 416. May not be repeated under an alternate prefix.)

**534 Performing Yiddish Theatre (3)**

*Prerequisites:* TH A 130 and audition, and/or consent of instructor. For course description, see TH A 534. (May not be repeated under alternate prefix.)

**546 20th Century American Jewish Women Writers (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. For course description, see ENG 546. (Also offered as WOMS 546.)

**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. Paired with JS 750. Students who have completed JS 750 may not take JS 550 for credit.

**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.

**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. May be repeated once.

**633 Modern Jewish History (3) [GE]**

*Prerequisite:* ENG 214 or consent of instructor. Jewish history from 1600 to present. Central theme is the encounter of traditional ethnic and religious minority with modernity. Topics: emancipation, anti-semitism, immigration, Zionism, Israel, America, Holocaust. (Also offered as HIST 633. May not be repeated under alternate prefix.)

**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****700 Introduction to Jewish Studies (3)**

*Prerequisite:* ENG 114 or equivalent. For course description, see JS 300. Paired with JS 300. Students who have completed JS 700 may not take JS 300 for credit.

**710 Jewish Thought and Culture (3)**

*Prerequisites:* JS 300 or equivalent and completion of B.A. For course description, see JS 310. Paired with

JS 310. Students who have completed JS 710 may not take JS 310 for credit.

**730 Jews and Judaism in the Modern World (3)**

*Prerequisite:* graduate status. For course description, see JS 330. Paired with JS 330. Students who have taken JS 730 may not take JS 330 for credit.

**740 American Jewish Identity and Family (3)**

*Prerequisite:* graduate status. For course description, see JS 340. Paired with JS 340. Students who have completed JS 740 may not take JS 340 for credit.

**750 Good and Evil: Jewish Ethics and Contemporary Social Problems (3)**

*Prerequisite:* JS 300. For course description, see JS 550. Paired with JS 550. Students who have completed JS 750 may not take JS 550 for credit.

**780 Jewish Community Studies (3)**

*Prerequisite:* B.A. The organizations and agencies serving the Jewish community. Diverse communal organizations and nature of the professional in each setting.

**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.

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

*Prerequisite:* consent of 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 the ability to do independent work. Enrollment is by petition. May be repeated for a total of 9 units.

**JOURNALISM****Undergraduate Courses****200 Journalism and Mass Media (3) [GE]**

*Enrollment priority given to declared journalism majors.* History, social role, function, and organization of the print and broadcast media. Emphasis on newspapers and magazines.

**220 Digital Skills for News (1)**

*For journalism majors only.* Journalism-related computer skills: operating systems, on-line research, word processing, design programs, spreadsheets, web page creation, system networking. Analyzes the impact of digital technology on gathering and communications of news. CR/NC grading only.

**221 Newswriting (3)**

*Prerequisites:* sophomore standing or higher; minimum grade of C in college-level English composition course; passing grade on department competency test given in class; typing skill of 25 wpm. Development of news judgment and clear writing skills. Minimum grade of C in course is required to continue on to JOUR 300.

**235 Photojournalism I (3)**

*Prerequisite:* sophomore standing or higher. Enrollment priority to journalism majors. Basic camera

and darkroom techniques. Photojournalistic style and content. Assignments involve taking pictures of people, telling stories, and conveying information. Must provide own camera and film. Extra fee required.

**300 Reporting (3)**

*Prerequisite:* JOUR 221 with grade of C or better; priority to majors. Advanced concepts of news gathering, interviewing, writing. Students cover San Francisco and Oakland neighborhoods. Grade of C or better required to continue to advanced courses.

**301 History of Journalism (3)**

*Enrollment priority given to declared journalism majors with upper division standing.* Evolution of journalism and media since print revolution to present. Development of newspapers, magazines, books, and broadcast media. First Amendment and how journalism is shaped by technical, legal, political constraints and tradition.

**305 Mass Communication Law (3)**

*Enrollment priority given to declared journalism majors with upper division standing.* Laws regarding media responsibility, placing the legal problems in a practical context; libel, contempt, constitutional guarantees, access to public records, the invasion of privacy, criticism, and copyright.

**320 Depth Reporting (3)**

*Prerequisite:* JOUR 300 with grade of C or better. Problems and methodology of investigative journalism. Techniques of documentation, the scope ranging from theory to practical application. Grade of C or better required to continue to JOUR 609.

**321 Feature Writing (3)**

*Prerequisite:* JOUR 300 with grade of C or better. Theory and practice of writing newspaper/magazine stories. Definition of a feature, searching for topics, interviewing techniques, deadline writing, freelancing. Grade of C or better required to continue to JOUR 609.

**330 Editing (3)**

*Prerequisite:* JOUR 221 with grade of C or better; priority to majors. Theory and practice of editing; fundamental copy editing, rewrite, and layout techniques: headline writing; restructuring and trimming of stories and articles. Formulation of story ideas and assignments. Page design concepts.

**335 Photojournalism II (3)**

*Prerequisite:* JOUR 235 with grade of C or better. Priority to juniors and seniors. Components of photojournalism; portrait, sports, feature, news, and picture story combined to produce a photojournalistic portfolio. Must provide camera and film. Extra fee required.

**336 Visual Storytelling (3)**

*Prerequisite:* JOUR 221 with a grade of C 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.

**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.

**420 Reporting Public Affairs (3)**

*Prerequisite:* JOUR 300 with grade of C or better. Coverage of government at all levels, interconnections between the branches in development of policy. Grade of C or better necessary to continue to JOUR 609.

**421 Analytic Journalism (3)**

*Prerequisite:* JOUR 300 with a grade of C or better or consent of instructor. Theory and practice in identifying, retrieving, and analyzing digital data for journalism. Instruction in telecommunications, text analysis, spreadsheets, databases, and GIS programs. Grade of C or better required to continue to JOUR 609.

**435 Photojournalism III (3)**

*Prerequisite:* JOUR 221, JOUR 300, and JOUR 335 with grades of C or better, and consent of instructor. Picture story concepts and development. Photojournalism legal and ethical issues. Must provide camera and film. Extra fee required.

**450 Publication Design and Graphics (3)**

*Prerequisite:* ENG 214 or equivalent. Editorial design and production for newspapers and magazines. Design as support for message. Vocabulary, concepts, and skills of editorial designer and photo editor. Assignments are executed on electronic equipment. Extra fee required.

**464 Media and Politics (4)**

*Prerequisite:* upper division standing or consent of instructor. For course description, see PLSI 464. (May not be repeated under alternate prefix.)

**500 Contemporary Magazines (3)**

*Prerequisite:* consent of instructor with priority to majors. Development and role of the contemporary magazine; the rise of specialized periodicals. New magazine start-ups, the dynamics of editorial strategy and planning. Magazine editing, design, and short article writing.

**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.

**595 Magazine Writing (3)**

*Prerequisite:* JOUR 300 with grade of C or better and consent of instructor. Principles/techniques of magazine writing, developing, researching, and writing factual articles for publication. Varied markets and steps necessary to get published. Grade of C or better necessary to continue to JOUR 609.

**609 Publication Laboratory (3)**

*Prerequisites:* for writers--JOUR 300 and one of these: JOUR 320, JOUR 321, JOUR 420, JOUR 421, JOUR 595

with grades of C or better; for photographers--JOUR 221, JOUR 235, and JOUR 335 with grades of C or better. Laboratory in reporting, writing, photography, editing, producing print/on-line publication. Grade of C or better required for credit in major and minor. May be repeated for a total of 6 units. Extra fee required.

**610 Ethnic Diversity and U.S. Journalism (1)**

*Prerequisite:* ENG 214 or equivalent. Explores issues involving both the hiring and coverage of ethnic minority people in U.S. journalism. Current and historical information explores alternative and mainstream news media policies and practices.

**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.

**667 Seminar: Topics in Journalism (3)**

*Prerequisite:* consent of department. Topic to be specified in Class Schedule. May be repeated when topics vary.

**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.

**695 Introduction to On-line Journalism (3)**

*Prerequisites:* JOUR 221, JOUR 300, and one of the following--JOUR 320, JOUR 321, JOUR 420, JOUR 421, or JOUR 595—with grades of C or better, and consent of instructor. Multimedia production for journalists. Creation of an electronic-only outlet of text, sound, archived video, and graphics for news.

**699 Special Study in Journalism (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)**

F,S

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.

**100 Aerobics: Low Impact****103 Aerobics: Steps****106 Elementary Aikido [GE]****109 Archery [GE]**

Extra fee required.

**110 Movement and Self-Awareness [GE]****112 Elementary Badminton****115 Elementary Basketball****119 Elementary Baseball****124 Fitness and Conditioning (2)****127 Personalized Fitness Programs****130 Elementary Golf**

Extra fee required.

**133 Gymnastics: Floor Exercise****136 Hatha Yoga [GE]****139 Jogging****142 Elementary Judo [GE]****145 Elementary Karate [GE]****148 Elementary Kung Fu [GE]****150 Kajukenbo [GE]****151 Tae Kwon Do****158 Personal Defense (2) [GE]****161 Shaolin Chuan: Tan-Tui [GE]****164 Elementary Soccer****168 Elementary Softball****171 Beginning Swimming: Non-swimmers****172 Elementary Swimming****173 Aquatic Fitness**

*Prerequisite:* ability to execute basic strokes with comfort in deep water.

**175 Elementary Tai-Chi Chuan [GE]****178 Elementary Tennis****179 Elementary Track and Field****180 Elementary Volleyball****183 Walking for Fitness****189 Weight Training: Beginners Only****190 Weight Training****191 Individualized Weight Training****192 Elementary Wrestling****198 Fitness and Well-being for the Older Adult**

*Recommended for older adults. Topic to be specified in Class Schedule.*

**199 Physical Education Activities for Individuals with Disabilities**

*Topic to be specified in Class Schedule. .*

**200 Training for Bay to Breakers****201 Cycling: Training for 30 Mile Race**

*Prerequisite:* ability to ride 10 miles in 60 minutes.

**202 Triathlon Training**

*Prerequisites:* Intermediate swimming, running, biking abilities and fitness.

**206 Intermediate/Advanced Aikido****212 Intermediate/Advanced Badminton****215 Intermediate/Advanced Basketball****230 Intermediate/Advanced Golf****236 Intermediate/Advanced Hatha Yoga (2) [GE]**

*Prerequisite:* KIN 136 or consent of instructor.

**242 Intermediate/Advanced Judo****248 Intermediate/Advanced Kung-Fu****264 Intermediate/Advanced Soccer****268 Intermediate/Advanced Softball****272 Intermediate/Advanced Swimming****275 Intermediate/Advanced Tai-Chi Chuan (2) [GE]****278 Intermediate/Advanced Tennis****280 Intermediate Volleyball****290 Lifeguard Training**

*Prerequisites:* timed swim test and CPR certificates (KIN 294 and KIN 295). A.R.C. Lifeguard certificate may be earned.

**291 Water Safety Instruction Training (2)**

*Prerequisites:* pass written test and skills test based on American Red Cross Emergency Water Safety or Lifeguard Training courses, and demonstrated skill proficiency in all swimming strokes. WSI certificate may be earned.

**294 CPR**

Certification in CPR for adults, children, and infants.

**295 First Aid and Cardiopulmonary Resuscitation (CPR) (2)**

Certification in CPR of adults, children, and infants and Standard First Aid are provided.

**298-299 Practicum in Kinesiology (1 each)**

*Prerequisites:* consent of instructor and associate chair. Individually directed experiences as leadership assistants in movement activities.

**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. Classwork, 1 unit, activity, 1 unit.

*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 stu-

dent take the corresponding activity course(s) prior to enrolling in the activity class.

**305 Instructional Analysis: Track, Field, and Gymnastics Floor Activities (2) S****306 Instructional Analysis: Racquet Sports (2)****307 Instructional Analysis: Basketball and Volleyball (2)****308 Instructional Analysis: Fitness Activities (2)**

*Prerequisites:* KIN 300 (may be taken concurrently); successful completion of fitness assessment; KIN 340 or approval of instructor. Analysis of fundamental skills and strategies in teaching a variety of fitness activities.

**309 Instructional Analysis: Soccer and Softball (2)****Coaching Courses (2 each)**

Techniques of teaching and coaching intermediate and advanced performers in that particular sport; analysis of skills and strategies appropriate to the advanced performer; management of practices and events, conditioning and safety, and organization of support staff. Students must possess at least intermediate level performance skill in the sport of the course, or receive consent of the instructor, in order to register. Classwork, 1 unit; activity, 1 unit.

**310 Coaching Softball (2) S****311 Coaching Baseball (2) F****312 Coaching Basketball (2) F****314 Coaching Soccer (2) S****315 Coaching Track and Field (2) F****318 Coaching Youth Sports (3)**

*Prerequisite:* KIN 401 or consent of instructor. Instruction in teaching and coaching children and youth in sport and physical activities common to elementary and middle school, recreational and club programs for young people.

**Prerequisites for Upper Division Courses**

*Courses numbered 321 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.*

**321 Introduction to Sports Injury Care (2) S**

Basics of sport injury prevention and care. Injury prevention, establishing emergency procedures, injury recognition, limitations in role of coach or practitioner. May not be taken for credit following KIN 584.

**322 The Sport Experience (3) [GE]**

Philosophic approaches to contemporary and classical issues in sport. Ethics of competition, excellence and mastery in sport, and extreme sport. Sport experience include epistemological inquiry, social justice models, and argumentation.

**325 Computer Applications in Kinesiology (3) F,S**

*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.

**331 Peak Performance (3) [GE] F,S**

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.

**340 Orientation to Teaching Physical Education (3) F**

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.

**350 Movement and Skill (3) F,S**

*Concurrent enrollment in KIN 325 and an activity course is recommended.* Enrollment priority to kinesiology majors. Environmental, socio-cultural, psychological, and biological bases of movement effectiveness. Observation and analysis of movement and personal movement efficiency. Classwork, 2 units; laboratory, 1 unit.

**355 Science, Sport, and Fitness (3) [GE] F,S**

*Prerequisite:* BIOL 100 or equivalent. 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.

**401 Elementary School Physical Education, K-5 (3) F,S**

*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.

**402 Practicum in Physical Education, N-5 (1-3) F**

*Required for physical education teacher preparation majors, who must take concurrently with KIN 401.* Directed experiences as teaching assistants of physical education in pre-school and elementary school programs.

**420 Field Experience in Fitness/Wellness (1) F**

*Must be taken concurrently with KIN 490.* Observation and evaluation of fitness/wellness programs in the corporate, private and community settings. Factors that influence participation and adherence to fitness/wellness programs.

**437 Physical Dimensions of Aging (3) [GE]**

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.



**450 Performance Enhancing Substances in Sport and Exercise (2) [GE]**

*Prerequisite:* college biology course. Evaluation, risks, and ethical issues in the use of various pharmacological, physiological, and nutritional "agents" to improve sport performance.

**451 Applied Exercise Testing (3)**

*Prerequisites:* knowledge of skeletal muscle anatomy and basic principles of exercise physiology or consent of instructor. Exercise testing of healthy individuals with adaptations for various age groups and physical conditions. Acquisition of practical skills and techniques in preparation for the ACSM Health Fitness Instructor Certification.

**457 Culture, Gender, and Movement (3) [GE]** **F,S**

*Prerequisites:* kinesiology majors must have completed 6 units of upper division KIN courses. Transmission of culture, values, and gender roles through a variety of movement forms. Interpretation of the cultural dimension of movement.

**475 Anatomical and Mechanical Bases of Human Movement (3)** **S**

*Prerequisites:* quantitative reasoning requirement with a grade of C or better, BIOL 328; upper division standing or consent of instructor. The musculo-skeletal and mechanical bases of human movement. Structure, function of interaction and external forces in the production of movement.

**476 Physiological Bases of Movement (3)** **F**

*Prerequisites:* BIOL 100 and 328 or equivalent. Basic physiological responses of the human body to acute and chronic movement/exercise.

**480 Anatomical Kinesiology (3)** **F,S**

*Prerequisites:* BIOL 328 and KIN 350 with grades of C or better. 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, 2 units; laboratory, 1 unit.

**482 Exercise Physiology (3)** **F,S**

*Prerequisites:* BIOL 610-611 and KIN 350 with grades of C or better. Physiological aspects of human movement as related to the systems of the human body. Organic function as related to physical activity. Classwork, 2 units; laboratory, 1 unit.

**484 Assessment in Exercise Science (3)** **F**

*Prerequisites:* completion of quantitative reasoning requirement with a grade of C or better, KIN 325. Assessment in exercise science; the construction and evaluation of measuring instruments. Classwork, 2 units; activity, 1 unit.

**485 Biomechanics (3)**

*Prerequisites:* MATH 124, PHYS 101 or 111, KIN 325 (or equivalent), and KIN 480. Mechanical principles applied to analyzing human movement. Interaction of mover and physical environment, efficiency in tasks of daily living, work settings, sport, and exercise.

**486 Motor Learning (3)** **F,S**

*Prerequisites:* kinesiology majors must have completed KIN 350 with a grade of C or better. 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.

**487 Motor Development (3) [GE]** **F,S**

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.

**488 Assessment in Physical Education (3)** **S**

*Prerequisites:* quantitative reasoning requirement with a grade of C or better, and KIN 325. Testing and measuring performance; history of test construction and use; selected statistical methods; test administration and evaluation. Classwork, 2 units; laboratory, 1 unit.

**489 History and Philosophy of Sport and Physical Activity (3)** **F**

History and philosophy of physical activity from ancient times to the early 20th century. Evolution of attitudes towards exercise and physical fitness.

**490 Fitness Program Management (2)** **F**

*Must be taken concurrently with KIN 420.* The fundamental physiological and motivational issues involved in the establishment and maintenance of a public/corporate exercise and fitness program.

**502 Sport and Social Issues (3) [GE]** **S**

Influences of media, politics, economy, social attitudes on sport institutions from childhood practices to professional athletics. Race, gender, and social class perspectives.

**536 Movement for Individuals with Mild Disabilities (4)** **F,S**

*Prerequisites:* KIN 350 and 6 units of upper division KIN courses. 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.

**537 Movement for Individuals with Severe Disabilities (3)**

*Prerequisites:* KIN 350 and 6 units of upper division KIN courses. 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.

**538 Therapeutic Exercise (2)**

*Prerequisites:* KIN 476 or 482; KIN 475 or 480. 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.

**539 Motor Assessment of Individuals with Disabilities (3)**

*Prerequisites:* KIN 536 and 537. KIN 488 and 538 recommended. Evaluation and diagnosis of motor ability problems for individuals with disabilities. Evaluation methods and the development of individual education plans.

**555 Exercise Prescription (3)** **S**

*Prerequisite:* KIN 480 or KIN 475. 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.

**556 Exercise Electrocardiography (2)**

*Prerequisite:* KIN 482 or KIN 476. Electrophysiological events that lead to normal resting and exercise electrocardiograms. Assists in preparation for ACSM certification. Classwork, 1 unit; laboratory, 1 unit.

**560 Functional Assessment of Physical Activity (2)**

*Prerequisites:* KIN 350 and one additional Human Movement Studies Concentration course. Experience with at least one movement form recommended. Introduction to tests of physical function that provide a means for activity prescription. Observation, evaluation, and design of individual and group exercise programs in a variety of community settings. Acquisition of practical skills and techniques in preparation for certification.

**570 Directed Coaching Experience (1)** **F,S**

*Prerequisites:* completion of 6 units in the coaching sequence. Assistant coaching experience, recreation leagues, youth, interscholastic or intercollegiate athletics. Site must be approved in advance. CR/NC grading only.

**580 Instructional Strategies for Middle and High School Physical Education, Grades 6-12 (3)** **S**

*Prerequisite:* KIN 486 or KIN 487. 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.

**581 Practicum in Middle and High School Physical Education (1)** **S**

*Prerequisite:* enrollment in teaching credential program. 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.

**620 Advanced Practicum in Kinesiology (2)** **F,S**

*Prerequisites:* consent of instructor and associate chair. Individually directed experiences as student trainers, varsity sport managers, or special leadership assistants in kinesiology.

**621 Advanced Practicum in Kinesiology (2)** **F,S**

*Prerequisites:* consent of instructor and associate chair. Individually directed experiences as student

trainers, varsity sport managers, or special leadership assistants in kinesiology.

**630 Internship in Adapted Physical Education (3)** F

*Prerequisites:* KIN 536, 537, 538. *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.

**636 Neuromotor Control Processes (3)**

*Prerequisite:* KIN 486. PSY 581 or BIOL 642 is recommended. Neuromuscular processes underlying coordination and control of movement in the context of skill. Paired with KIN 736. Students who have completed KIN 636 may not take KIN 736 later for credit.

**663 Motivation and Physical Performance (3)**

*Prerequisite:* course in psychology (200-level or above) or KIN 331 or KIN 504. Social-psychological factors related to performance and participation in sport and exercise-related settings, including such topics as motivation, anxiety, and psychological skills training. Also, theoretical perspectives and application of research findings to physical performance. Paired with KIN 763. Students who have completed KIN 763 may not take KIN 663 for credit.

**680 Quantitative Analysis of Human Movement (3)**

*Prerequisite:* KIN 485. KIN 560 is recommended. 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.

**683 Applied Exercise Physiology (3)** S

*Prerequisite:* KIN 482 or equivalent. 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. Paired with KIN 783. Students who have completed KIN 683 may not take KIN 783 for credit. Classwork, 2 units; laboratory, 1 unit.

**685 Projects in Teaching Kinesiology (1-3)** F,S

*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.

**690 Internship in Fitness/Wellness (3)**

*Prerequisites:* KIN 420, KIN 482, and KIN 490. Work as a trainee with professionals in the field of fitness/wellness, and extend learning experiences beyond those acquired on campus.

**697 Integrative Research Seminar (2)**

*Prerequisites:* KIN 482, 485, and 486. 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.

**698 Senior Research Project (1)**

*Prerequisites:* KIN 482, KIN 485, KIN 486 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.

**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.

*Graduate Courses*

**710 Research in Kinesiology (3)** F

*Prerequisites:* undergraduate degree in kinesiology, a computer and a statistics course, or consent of instructor. Descriptive, quasi-experimental, experimental, and qualitative research in kinesiology.

**715 Research Designs and Analysis (3)** S

*Prerequisite:* KIN 710 or consent of instructor. Designs and statistics in descriptive, experimental, quasi-experimental, and qualitative research.

**720 Movement, Fitness, and Skill (3)**

*Prerequisite:* graduate status. Changes in motor behavior and performance as a function of fitness and skill are explored from a dynamical systems perspective.

**730 Analysis of Human Movement (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.

**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.

**736 Neuromotor Control Processes (3)**

*Prerequisites:* KIN 486 or consent of instructor; PSY 581 or BIOL 642 is recommended. For course description, see KIN 636. Paired with KIN 636. Students who have completed KIN 736 may not take KIN 636 for credit.

**740 Physiological Analysis (3)**

*Prerequisite:* upper division undergraduate course in exercise physiology or equivalent, or consent of instructor. Evaluation of acute and chronic physiological responses of the human body to movements in excess of the resting condition.

**746 Theories of Sports Medicine (3)**

*Prerequisites:* undergraduate course in exercise physiology and kinesiology. Clinical issues and conditions as they apply to physical activity and training programs.

**750 Curriculum and Instruction in Physical Education (3)**

Determining objectives, developing curriculum, making resource units, developing evaluating techniques.

**756 Readings in Sports Research (3)**

*Prerequisites:* KIN 710 and 715. Interpreting and applying research to sports; developing a program to improve sports performance. CR/NC grading only.

**763 Motivation and Physical Performance (3)**

*Prerequisite:* upper division or graduate standing. For course description, see KIN 663. Paired with KIN 663. Students who have completed KIN 663 may not take KIN 763 for credit.

**766 Sociology of Exercise and Skill (3)**

*Prerequisites:* graduate or upper division standing and consent of instructor. Sociocultural factors and ethical issues underlying participation in exercise and physical activity. Implications for the practitioner.

**773 Individuals with Disabilities (3)**

*Prerequisites:* undergraduate degree in kinesiology or related area and undergraduate course in disabilities or consent of instructor. Issues and trends in the rehabilitation and teaching of movement activities to individuals with disabilities.

**783 Applied Exercise Physiology (3)**

*Prerequisite:* KIN 482 or equivalent or consent of instructor. For course description, see KIN 683. Paired with KIN 683. Students who have completed KIN 783 may not take KIN 683 for credit.

**793 Topics in Movement and Exercise Science (3)**

*Prerequisite:* graduate status or consent of instructor. Topic to be specified in the Class Schedule. May be repeated for a total of 6 units when topics vary.

**895 Master's Project in Kinesiology (3)**

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration. CR/NC grading only.

**896 Directed Reading in Kinesiology (3)**

*Prerequisites:* completion of 21 units on the GAP, 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.

**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.

**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.

**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 6 units. CR/NC grading only.

**LATIN***Undergraduate Courses***101 Elementary Latin (5) [GE]**

Latin language and grammar with emphasis on reading classical prose. Groundwork for master works of Latin poetry and prose.

**202 Intermediate Latin (5) [GE]**

*Prerequisite:* LATN 101 or equivalent. Understanding, reading, writing at the intermediate level. Reading selections from prose and poetry.

**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.

**435 Post-Augustan Prose (3)**

*Prerequisite:* LATN 202 or equivalent. Translation and analysis from Seneca, Suetonius, Pliny, Apuleius. Genres represented in the post-Augustan period and approaches to the literature. Paired with LATN 735. Students who have completed LATN 435 may not take LATN 735 later for credit.

**440 Republican Prose (3)**

*Prerequisite:* LATN 202 or equivalent. Translation and analysis from Caesar, Sallust, Nepos. Prose structure and theories of prose rhythm; analysis of prose styles. Paired with LATN 740. Students who have completed LATN 440 may not take LATN 740 for credit.

**445 Vergil (3)**

*Prerequisite:* LATN 202 or equivalent. Translation and analysis from the works of Vergil. Paired with LATN 745. Students who have completed LATN 445 may not take LATN 745 for credit.

**450 Roman Drama (3)**

*Prerequisite:* LATN 202 or equivalent. Translation and analysis from the works of Plautus, Terence, Seneca; performance of ancient comedy, tragedy. Paired with LATN 750. Students who have completed LATN 450 may not take LATN 750 for credit.

**455 Latin Elegy and Lyric (3)**

*Prerequisite:* LATN 202 or equivalent. Translation and analysis of elegiac and lyric poetry from works

of Horace, Catullus, Propertius, Ovid, Tibullus. Paired with LATN 755. Students who have completed LATN 455 may not take LATN 755 for credit.

**460 Roman Historians (3)**

*Prerequisite:* LATN 202 or equivalent. Translation and analysis of selected works of Livy, Tacitus; elements of historical writing; ancient sources, models. Paired with LATN 760. Students who have completed LATN 460 may not take LATN 760 for credit.

**465 Cicero (3)**

*Prerequisite:* LATN 202 or equivalent. Translation and analysis of selections from Cicero's orations, letters, philosophical writings; development of Roman oratory, legal systems. Paired with LATN 765. Students who have completed LATN 465 may not take LATN 765 for credit.

**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.*

**730 Roman Satire (3)**

For course description, see LATN 430. Paired with LATN 430. Students who have completed LATN 730 may not take LATN 430 for credit.

**735 Post-Augustan Prose (3)**

For course description, see LATN 435. Paired with LATN 435. Students who have completed LATN 735 may not take LATN 435 for credit.

**740 Republican Prose (3)**

For course description, see LATN 440. Paired with LATN 440. Students who have completed LATN 740 may not take LATN 440 for credit.

**745 Vergil (3)**

For course description, see LATN 445. Paired with LATN 445. Students who have completed LATN 745 may not take LATN 445 for credit.

**750 Roman Drama (3)**

For course description, see LATN 450. Paired with LATN 450. Students who have completed LATN 750 may not take LATN 450 for credit.

**755 Latin Elegy and Lyric (3)**

For course description, see LATN 455. Paired with LATN 455. Students who have completed LATN 755 may not take LATN 455 for credit.

**760 Roman Historians (3)**

For course description, see LATN 460. Paired with LATN 460. Students who have completed LATN 760 may not take LATN 460 for credit.

**765 Cicero (3)**

For course description, see LATN 465. Paired with LATN 465. Students who have completed LATN 765 may not take LATN 465 for credit.

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

*Prerequisites:* advanced reading knowledge of Latin and consent of supervising faculty member. Ad-

vanced 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.

**LIBRARY EDUCATION***Undergraduate Courses***100 Introduction to Library Research (3) F,S**

Introduction to basic library information resources: identification and location of types of library materials and techniques for locating, evaluating, and organizing information. Recommended for freshman, sophomores, special admission, and reentry students. Fulfills the university Library Skills requirement.

**301 Topics in Library Research (1-3)**

*Topic to be specified in Class Schedule.* Introduction to library research for a subject area (e.g., arts and humanities, sciences, social and behavioral sciences); identification and location of library materials and resources for the subject area; overview of the structure and development of the literature of the subject area; techniques and strategies for library research.

**302 Exploring the Information Universe (3)**

*Prerequisite:* ENG 214. Open to all students. Research methods in an on-line environment. Explores Internet search engines, develops effective search strategies for finding and evaluating resources. Considers social aspects of information in digital age. Extends range and depth of student research skills. Fulfills the university Basic Information Competence requirement.

**699 Special Study (3)**

*Prerequisite:* consent of instructor. Special topics and/or research in library or information studies. Open to undergraduate students who have expertise to create bibliography or paper in selected areas of research. CR/NC grading only.

**MANAGEMENT***Undergraduate Courses***306 Introduction to Enterprise (3)**

*Prerequisite:* ENG/BUS 214. The top executive's perspective. Lectures by corporate and government CEOs. Interaction of enterprise, profit, management, labor, government, and universities.

**342 Leadership Skills for Women (3) F,S**

*Prerequisite:* BUS/ENG 214 (C- or better). Developing approaches and specific behaviors for functioning effectively in leadership roles. Building support systems and self-esteem. Cross-cultural comparisons of women's status and progress—U.S. and global.

**354 Starting a Business (Non-business Majors) (3)**

*Prerequisite:* ENG 214. The process of starting and managing a successful small business.

**354 Starting a Business (Non-entrepreneurship Majors) (3)**

*Prerequisite:* ENG 214 or equivalent. The process of starting and managing a successful small business. Students participate in a team project which takes them through an actual startup.

**405 Introduction to Management and Organizational Behavior (3) F,S**

*Prerequisite:* BUS/ENG 214 (C- or better). 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.

**407 Economics for Managers (3) F,S**

*Prerequisites:* BA 110, ECON 100, 101. 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.

**430 Introduction to Entrepreneurship I (3)**

*Prerequisites:* ACCT 101, BA 212, 412, MGMT 405, MKTG 431 (all C- or better); ISYS 263 or pass computer information systems proficiency test. The entrepreneurial process and the different kinds of entrepreneurial outcomes. Opportunity identification through analysis of industry niches.

**431 Introduction to Entrepreneurship II (3)**

*Prerequisite:* MGMT 430. Skills needed in order to turn an opportunity into reality. Business plans, launch decisions, and obtaining risk capital.

**432 Entrepreneurial Strategy and Tactics (3)**

*Prerequisite:* MGMT 430. Types of entrepreneurial entry strategies; factors influencing the selection of an appropriate strategy and the translation of that strategy into effective tactics.

**433 Building the Entrepreneurial Venture (3)**

*Prerequisites:* MGMT 431, 432. How entrepreneurs and owners of small businesses can keep their businesses alive and vital as they grow sales and expand to new markets.

**436 Family Business Dynamics (3)**

*Prerequisite:* ENG 214. Examination of the special business challenges faced by family-owned businesses. Techniques to manage these complex issues within the context of entrepreneurship. Paired with MGMT 836. Students who have completed MGMT 436 may not take MGMT 836 later for credit.

**437 Entrepreneurial Internship (3)**

*Prerequisite:* MGMT 430, 431 (both C- or better). Examination of how entrepreneurial principles play out in real world. Paired with MGMT 837. Students who take MGMT 437 may not take MGMT 837 later for credit.

**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.

**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.

**605 Seminar in Organization Behavior (3) F,S**

*Prerequisite:* MGMT 405 (C- or better). Human behavior in organizational settings. Individual motivation and behavior; communication theory and processes; group dynamics; leadership styles.

**610 Human Resource Management (3) F,S**

*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.

**611 Management of Employee and Industrial Relations (3) F,S**

*Prerequisite:* MGMT 610 (C- or better). Policies, best practices, and programs in employee relations; tools and techniques for improving employee performance. Employer handbooks, termination, and discipline; employer relations training manual. Paired with MGMT 811. Students who have completed MGMT 611 cannot take MGMT 811 for credit.

**612 Compensation and Benefits Administration (3) F,S**

*Prerequisite:* MGMT 610 (C- or better). Job evaluation and compensation as managerial tools. Development and evaluation of alternative means of job evaluation and job rewards. Legal constraints surrounding job analysis, wage surveys, and employee benefits.

**614 Managing the Staffing and Employment Function (3) F**

*Prerequisite:* MGMT 610 (C- or better). Effective employee staffing. Job search and choice, interviewing, assessment centers, mentorships, ethical/legal staffing considerations. Paired with MGMT 814. Students who have completed MGMT 614 may not take MGMT 814 for credit.

**615 Managing Employment Law and Affirmative Action in Business (3) F**

*Prerequisite:* MGMT 610 (C- or better). Government regulations affecting human resource management. Legal compliance in development and administration of affirmative action plans. Paired with MGMT 815. Students who have completed MGMT 615 may not take MGMT 815 for credit.

**617 Emerging Issues in Human Resource Management (3) F,S**

*Prerequisites:* MGMT 610, MGMT 611 (both with grades of C- or better), or consent of instructor. In-depth study of current major issues in personnel/human resource management. Group discussions and expert quest speakers. Paired with MGMT 817. Students who have completed MGMT 617 may not take MGMT 817 for credit. MGMT 617 may be repeated for a total of 9 units.

**618 International Human Resource Management (3)**

*Prerequisites:* MGMT 405, 610. 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. (Also offered as IBUS 618.)

**619 Management of Technology in Human Resources (3)**

*Prerequisites:* MGMT 405; ISYS 263 or pass computer information systems proficiency test. Emerging technologies in human resources. Analysis of best practices in leading companies. Paired with MGMT 819. Students who have completed MGMT 619 may not take MGMT 819 for credit.

**620 Seminar in Advanced Management (3)**

*Prerequisites:* BUS 360, MGMT 605, 610 (all C- or better). Complex organizations; understanding the interrelationships among structure, strategy, systems, people, and management style.

**655 Seminar in Emerging Issues in Management (3)**

*Prerequisite:* MGMT 405 with a grade of C- or better. Topic to be specified in Class Schedule. May be repeated when topics vary.

**659 Introduction to International Business Negotiation (3)**

*Prerequisite:* MGMT 405 with grade of C- or better or consent of instructor. For course description, see IBUS 659. (May not be repeated under alternate prefix.)

**660 Seminar in Managing for World Class Competitiveness (3) F**

*Prerequisite:* BA 412 (C- or better). Principles and practical techniques for establishing modern, world class business structured as "lean," customer-focused, inherently flexible, adaptive organizations. Quality management, worker ownership, continuous improvement.

**680 Management, Training, and Organizational Development (3) S**

*Prerequisite:* MGMT 405 (C- or better). Contemporary management problems in training, management, and organizational development (O.D.). Developing and evaluating training and O.D. programs.

**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.

**Graduate Courses****811 Management of Employee and Industrial Relations (3)**

*Prerequisites:* completion of 700-level series. For course description, see MGMT 611. Paired with MGMT 611. Students who have completed MGMT 811 may not take MGMT 611 for credit.

**814 Managing the Staffing and Employment Function (3) F**

For course description, see MGMT 614. Paired with MGMT 614. Students who have completed MGMT 814 may not take MGMT 614 for credit.

**817 Emerging Issues in Human Resource Management (3) F,S**

*Prerequisite:* BUS 788 or consent of instructor. For course description, see MGMT 617. Paired with MGMT 617. Students who have completed MGMT 817 may not take MGMT 617 for credit. MGMT 817 may be repeated for a total of 9 units.

**818 Seminar in International Human Resource Management (3) F**

*Prerequisites:* classified graduate status. Challenges that multinational firms are faced with and strategies they use to effectively manage their workforce in culturally and geographically diverse environments. (Also offered as IBUS 818. May not be repeated under alternate prefix.)

**819 Management of Technology in Human Resources (3)**

*Prerequisites:* BUS 782, 788. For course description, see MGMT 619. Paired with MGMT 619. Students who have completed MGMT 819 may not take MGMT 619 for credit.

**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.

**832 Entrepreneurial Resource Acquisition (3)**

*Prerequisite:* MGMT 831. Entrepreneurial approach to the pursuit of opportunities by gaining access to resources rather than ownership. Effective networking, outsourcing and strategic alliances.

**833 Entrepreneurial Management (3)**

*Prerequisite:* MGMT 831. Ways to keep entrepreneurial ventures alive and growing and ahead of expanding markets.

**834 New Venture Finance (3)**

*Prerequisites:* FIN 819, MGMT 831. For course description, see FIN 834.

**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.

**836 Family Business Dynamics (3)**

*Prerequisite:* BUS 788. For course description, see MGMT 436. Paired with MGMT 436. Students who have taken MGMT 436 may not take MGMT 836 for credit.

**837 Entrepreneurial Internship (3)**

*Prerequisite:* MGMT 831 with a grade of B or better. Provides an opportunity to examine how entrepreneurial principles play out in real life. Paired with MGMT 437. Students who have taken MGMT 437 may not take MGMT 837 for credit.

**840 Seminar in the Quality of Work Life (3)**

Principles, methods, and issues relating to the governance of an enterprise. Participative design of self-managing organizations. Historical and contemporary cases from North American and European companies.

**842 Seminar in Organization Design and Change (3) F,S**

*Prerequisite:* BUS 788. 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.

**846 Seminar in Human Resource Management (3) F**

*Prerequisite:* BUS 788 or consent of instructor. Analysis of effective human resource management policies and procedures including recruitment and selection, performance appraisal, employment/equal employment opportunity law, and employee problem solving. Includes case analysis and projects.

**848 Seminar in Leadership Patterns and Opportunities (3) F,S**

*Prerequisites:* 700-level courses. Analysis of leadership patterns and opportunities in increasingly complex organizational environments.

**852 Managing Innovation and Growth (3)**

*Prerequisite:* BUS 788. Keeping a small business alive and vital as it "grows" or "revitalizes" after losing its original creative spirit. Culture, organizational structure, and management practices that promote creativity and innovation in products and production processes.

**855 Seminar in Emerging Issues in Management (3)**

*Prerequisite:* BUS 788. Topic to be specified in Class Schedule. May be repeated when topics vary.

**857 Corporate Management (3)**

*Prerequisites:* four 800-level business courses. The boardroom--overview from the top executive's perspective. Conducted by corporate CEO. Students function as a board of directors. Managerial functions and operations. "Bottom-line" concept.

**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.

**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***303 Marine Ecology (4) F,S**

*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.

**304 Quantitative Marine Science (4) F,S**

*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.

**305 Marine Science Diving (3) F,S**

*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.

**312 Marine Birds and Mammals (4) A**

*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.

**313 Marine Ichthyology (4) S**

*Prerequisite:* college zoology or equivalent; MSCI 303 or BIOL 585 recommended. The taxonomy, morphology, function, and ecology of marine fishes. Classwork, 2 units; laboratory and fieldwork, 2 units. (Not open to students who have completed BIOL 571.)

**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.

**325 Marine Invertebrate Zoology II (3)**

*Prerequisite:* college zoology or consent of instructor; MSCI 303 and MSCI 324 recommended. Structure, systematics, evolution, and life histories of the minor marine invertebrate phyla. Classwork, 1 unit; laboratory, 2 units.

**331 Marine Botany (4) F**

*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.

**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.

**341 Geological Oceanography (4) A**

*Prerequisite:* MSCI 342 or 343 (may be taken concurrently). The structure, physiography, and composi-

tion of the sea bottom and shoreline. Classwork, 2 units; laboratory, 2 units.

### 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.

### 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.

### 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.

### 373 Topics in Marine Biology (1-4)

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

### 374 Topics in Oceanography (1-4)

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. Study of a selected area in oceanography. Topics vary depending on student demand and availability of instructors. May be repeated for credit when topics vary.

### 375 Topics in Marine Science (1-4)

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

### 699 Individual Study (1-3) F,S

*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

### 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.

### 702 Oceanographic Instrumentation (4)

*Prerequisites:* MSCI 341, MSCI 342, and consent of instructor. Principles of instruments used in oceanographic research, electronics, and applications of instrument measurements. Emphasis varies from CTD profilers, current meters, radiometry, and chemical measurement. Classwork, 2 units; laboratory, 2 units.

### 704 Sampling and Experimental Design (4)

*Prerequisite:* MSCI 304. Design of experiments and field sampling, random sampling, systematic sampling, subsampling, survey techniques, and design of single and multifactorial experiments using randomized and block experimental designs.

### 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.

### 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.

### 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.

### 712 Advanced Topics in Marine Vertebrates (1-4) A

*Prerequisites:* MSCI 312, 313 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

### 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.

### 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.

### 742 Plate Tectonics (3) A

*Prerequisite:* MSCI 341 or GEOL 467 or consent of instructor. Historical background and modern theory of continental drift, sea-floor spreading, and plate tectonics.

### 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.

### 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.

### 761 Ocean Circulation and Mixing (4) A

*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.

### 762 Satellite Oceanography (4)

*Prerequisites:* MSCI 342, MSCI 344, or consent of instructor. Strongly recommended: MSCI 763. Physical principles of remote sensing with application to the oceans including satellite image processing methods. Labs involve use of PC and UNIX workstation. Classwork, 2 units; laboratory, 2 units.

### 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.

### 771 Population Biology (3) A

*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.

### 772 Subtidal Ecology (4)

*Prerequisites:* MLML diver certification and marine ecology; knowledge of marine algae, invertebrates, and statistics recommended. The ecology of near shore, rocky, subtidal populations and communities with emphasis on kelp forests. Field work with SCU-BA including group projects on underwater research techniques and community analysis.

### 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.

### 774 Advanced Topics in Oceanography (1-4)

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**780 Scientific Writing (2)**

*Prerequisites:* graduate status and consent of instructor. Basic aspects of scientific writing.

**885 Seminar in Marine Biology (2) F,S**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated once.

**897 Research (1-4) F,S**

*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.

**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***431 Marketing (3) F,S**

*Prerequisites:* ACCT 101, ECON 100, 101 (ECON 305 for non-business majors), ENG 214. Marketing functions designed to satisfy an organization's target market's needs for goods, services, and ideas. Domestic and international settings show how organizations determine products, prices, promotion, and distribution.

**432 Public Relations (3) F,S**

*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.

**433 Personal Selling (3) F,S**

*Prerequisite:* MKTG 431. Psychological factors underlying prospect behavior from initial recognition of need to final purchase of products and services.

**434 Advertising Theory and Practice (3) F,S**

*Prerequisite:* MKTG 431. Economic aspects of advertising; selection of media, testing effectiveness; organization for carrying out advertising activities, principles, and procedures.

**435 Purchasing Management (3)**

*Prerequisite:* MKTG 431. Strategic and operational purchasing of materials and services needed for both resale and production. Supplier selection and management, negotiations, and materials management.

**436 Retail Management (3) F,S**

*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.

**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. Classroom, 2 units; laboratory, 1 unit.

**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.

**450 Marketing for Small Business (3)**

*Prerequisite:* MKTG 431. Marketing for the smaller business: identification of product or service potential; advertising plans; marketing strategy; sales motivation and direction; purchasing procedures and inventory control.

**469 Internet Marketing (3)**

*Prerequisites:* MKTG 431, ISYS 363. On-line media utilizing integrated marketing communications. Web site exploration and construction.

**521 Transportation and Logistics (3) F**

*Prerequisite:* ECON 101. Demands made by society, buyers, and sellers upon our nation's transportation systems. Challenges facing the carriers and the government in meeting these demands.

**527 Physical Distribution Management (3) F,S**

*Prerequisites:* BA 412, MKTG 431. Physical distribution functions of the firm. Marketing and purchasing: inventories, customer service, order processing, packaging, warehousing, and transportation.

**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.

**632 Marketing Research (3) F,S**

*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.

**633 Consumer Behavior (3) F**

*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.

**637 Sales Management (3) F,S**

*Prerequisite:* MKTG 431. 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.

**649 Marketing Management (3) F,S**

*Prerequisites:* MKTG 431, 632, 633, FIN 350. Planning, organizing, integrating, and measuring the total marketing plan. Problems of managing the

marketing function. Managerial supervision and control of marketing.

**664 Seminar in Marketing Research (3)**

*Prerequisites:* MKTG 632, 633. Marketing research techniques and real world applications. Data collection and analysis, including multivariate techniques. Use of computer spreadsheets and statistical packages. Paired with MKTG 864. Students who have completed MKTG 664 may not take MKTG 864 later for credit.

**680 International Marketing Management (3) F,S**

*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.

**688 New Product Management Seminar (3)**

*Prerequisites:* MKTG 431, FIN 350. Project/product management for creating, developing, and commercializing new products. Developing marketing mix, strategic and tactical plans, and a budget for market introduction.

**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.

*Graduate Courses***860 Strategic Marketing (3) F,S**

*Prerequisite:* BUS 787. Seminar integrating corporate mission with development of strategic marketing plans for product markets. Selecting marketing planning units, situational analysis, target market strategies, and positioning statements to reflect global short/long-range environment.

**861 Consumer Behavior Seminar (3) S**

*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.

**862 Seminar in Advertising (3) F,S**

*Prerequisite:* BUS 787. Influence and communication forces of advertising in light of changing economic, social and governmental conditions; quantitative aspects of advertising problems.

**864 Seminar in Marketing Research (3) F,S**

*Prerequisites:* BUS 782, 787. For course description, see MKTG 664. Paired with MKTG 664. Students who have completed MKTG 864 may not take MKTG 664 for credit.

**865 Seminar in Marketing Management (3) F**

*Prerequisite:* MKTG 860. Topics from academic and business research applied to contemporary market-

ing practice. May be repeated for a total of 6 units with consent of instructor.

### 867 Public Relations in an Internet Age (3)

*Prerequisite:* BUS 787. A strategic analysis of emerging Internet and traditional public relations solutions to create a company image using press kits, an online media web site, virtual/real time events, solutions analysis, and crisis press simulations.

### 869 Internet Marketing (3)

*Prerequisites:* BUS 782, BUS 787. Marketing changes brought about by the widespread adoption of the Internet and the World Wide Web. Products, prices, promotion, distribution, and government regulations have been altered.

### 872 Electronic Business Marketing Strategy (3)

*Prerequisites:* MKTG 860, MKTG 869. New rules, problems, and challenges of designing and implementing marketing strategy for fast-changing e-commerce business.

### 880 Seminar in International Marketing Management (3) S

*Prerequisite:* BUS 787. International market entry and expansion, organizing for world marketing management, financial and legal factors affecting world marketing management, world marketing strategy, and long-range planning and policy formulation.

### 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.

### 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.

## 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.*

### 059 Algebra I 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.

### 060 Algebra I (3) F,S

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.

### 070 Algebra II (3) F,S

*Prerequisite:* a grade of C or better in MATH 59 or 60, or 480 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.

### 109 College Algebra and Trigonometry (3-4)

*Prerequisite:* satisfactory completion of ELM requirement. Functions, graphing techniques, exponentials and logarithms, trigonometry.

### 110 Business Calculus (3) [GE]

*Prerequisite:* satisfactory completion of ELM requirement. Functions, derivatives, and applications of differentiation, including optimization. Problems involving business, finance, and economics. Elements of basic calculus.

### 124 Elementary Statistics (3) [GE] F,S

*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.

### 165 Concepts of the Number System (3) F,S

*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.

### 219 Calculus with Pre-calculus Support (6) [GE] F,S

*Prerequisites:* satisfactory completion of ELM requirement and MATH 109 or equivalent. Provides support in pre-calculus well beyond that possible in the traditional introduction plus the regular materials covered in MATH 226. Equivalent to MATH 226 as prerequisite to other courses.

### 226 Calculus I (4) [GE] F,S

*Prerequisites:* satisfactory completion of ELM requirement and MATH 109 or equivalent with a grade of C or better. Graphs; differentiation: theory, techniques, and applications. Integration, fundamental theorem of calculus, applications of integration, transcendental functions.

### 227 Calculus II (4) F,S

*Prerequisite:* MATH 226 with a grade of C or better. Techniques of integration, analytic geometry, polar coordinates, vectors, improper integrals. Sequences and series.

### 228 Calculus III (4)

*Prerequisite:* MATH 227 with a grade of C or better. Three-dimensional analytic geometry, partial differentiation, multiple integrals, vector calculus.

### 245 Elementary Differential Equations and Linear Algebra (3) F,S

*Prerequisite:* MATH 228 with a grade of C or better. First and second order linear differential equations,

Laplace transform methods, Fourier series, matrix algebra.

### 300 History of Mathematics (3) S

*Prerequisite:* MATH 227 or equivalent. Ideas and techniques that constitute the world of mathematics. Problem-solving methods and techniques applied to such diverse areas as Egyptian, Greek, and Babylonian mathematics; geometry, number theory, calculus; modern mathematics.

### 301 Exploration and Proof (3) F

*Prerequisite:* MATH 226 or equivalent. Informal exploration and proofs in mathematics; basic concepts of advanced mathematics courses. Exploratory thinking, elementary logic, sets, mathematical induction, the integers, relations, and functions.

### 309 Computation in Mathematics (3) F

*Prerequisite:* MATH 227 or equivalent. Computing in mathematics, including programming and use of commercial mathematical software.

### 310 Elementary Number Theory (3) F

*Prerequisites:* MATH 227 with a grade of C or better. Divisibility, congruencies, power residues, quadratic reciprocity, diophantine equations. Number theoretic functions, continued fractions and rational approximation, partitions.

### 324 Probability and Statistics with Computing (3)

*Prerequisites:* MATH 227 and some computer experience. Basic concepts of probability and statistics. Data analysis, probability distributions, confidence intervals, and hypothesis testing. Students use computer software to do statistical analyses.

### 325 Linear Algebra (3) F,S

*Prerequisite:* MATH 227 with a grade of C or better; MATH 330 or 301 recommended. Vector spaces, linear transformations, elements of matrix algebra including determinants and eigenvalues.

### 330 Discrete Mathematics (3)

*Prerequisite:* MATH 226 with a grade of C or better. The algebra of sets; relations and functions; elementary propositional logic. Proof techniques, including mathematical induction. Integers and modular arithmetic. Elementary combinatorial identities, recursion and generating functions. Graph theory, including trees.

### 335 Modern Algebra (3)

*Prerequisite:* MATH 325 with a grade of C or better and MATH 301 or consent of instructor. Introduction to groups, rings, integral domains, fields, and ordering.

### 338 Introduction to SAS (3)

*Prerequisite:* MATH 124 or equivalent. 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.

### 340 Probability and Statistics I (3) F,S

*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.

### 350 Geometry (3)

*Prerequisites:* MATH 228 and 301. 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.

### 365 Advanced Number Systems (3)

*Prerequisite:* MATH 165. 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.

### 370 Real Analysis I (3) F

*Prerequisite:* MATH 228 with a grade of C or better and MATH 301 or consent of instructor. Critical development of analysis: Bolzano-Weierstrass and Heine-Borel theorems; limits, continuity, differentiability, integrability.

### 374 Advanced Calculus (3) S

*Prerequisite:* MATH 228 and 325 with a grade of C or better. Coordinate transformations, Jacobians; vector calculus, line integrals and Green's theorem, surface integrals and Stokes' theorem, divergence theorem; uniform convergence; Fourier series.

### 376 Ordinary Differential Equations I (3) F,S

*Must be taken concurrently with MATH 228.* Theory of linear differential equations; series solutions with applications to Bessel and Legendre equations; existence and uniqueness theorems; numerical techniques.

### 380 Introduction to Functions of a Complex Variable (3) S

*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.

### 400 Numerical Analysis (3) S

*Prerequisites:* MATH 228 and 325 with a grade of C or better; CSC 210 or MATH 309. 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.

### 430 Operations Research: Deterministic Methods (3)

*Prerequisite:* MATH 325 with a grade of C or better. Deterministic methods of operations research. Problem formulation, development of solution algorithms and their computer implementation. Linear programming, network analysis, and transportation models.

### 441 Probability and Statistics II (3)

*Prerequisite:* MATH 340 with a grade of C or better. Continuation of MATH 340. Sampling distributions, estimation of parameters, hypothesis testing, goodness-of-fit tests, linear regression, and selected non-parametric methods.

### 442 Probability Models (3)

*Prerequisite:* MATH 340 with a grade of C or better. Advanced topics in probability theory: discrete and continuous time Markov chains, Poisson process, queueing systems, and applications.

### 455 Set Theory (3)

*Prerequisites:* MATH 330. MATH 335 with a grade of C or better or consent of instructor. Quantifier logic, paradoxes of set theory, cardinal and ordinal arithmetic, and equivalents of the axiom of choice.

### 460 Mathematical Modeling (3) S

*Prerequisites:* MATH 325, and MATH 376 or 245. Deterministic and stochastic techniques used in mathematical modeling, illustrated and developed through problems originating in industry and applied research.

### 470 Real Analysis II (3) S

*Prerequisite:* MATH 370 with a grade of C or better. Power series, Fourier series; uniform convergence, partial differentiation, implicit function theorem; theorems of Gauss, Green, and Stokes.

### 476 Ordinary Differential Equations II (3)

*Prerequisite:* MATH 376 with a grade of C or better. Systems of linear differential equations; boundary-value problems, Green's function; further topics such as: introduction to non-linear systems and stability theory, difference equations, operator methods.

### 477 Partial Differential Equations (3)

*Prerequisites:* MATH 374 and 376 with a grade of C or better. Formulation of initial and boundary value problems; separation of variables, Sturm-Liouville theory; wave propagation method. Applications.

### 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.

### 565 Concepts of Geometry, Measurement, and Probability (3) F,S

*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.

### 567 Problem Solving and Discovery in Mathematics (3)

*Prerequisite:* MATH 70 or equivalent. Intended for non-science majors and prospective teaching credential candidates interested in a mathematics concentration. Problem solving strategies are used to

explore topics in algebra, logic, and number theory. Games, puzzles, and brain teasers are investigated.

### 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, geometry, probability, and statistics.

### 576 Math in Middle Schools II (3)

*Prerequisite:* MATH 575. Continues to prepare students with content knowledge needed to teach algebra in middle school. Begins work in probability and statistics.

### 577 Math in Middle School III (4)

*Prerequisite:* MATH 576. 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.

### 580 Curriculum and Instruction in Mathematics (3)

The teaching of mathematics in junior and senior high schools including determination of objectives, utilization of modern principles of learning, development of curriculum materials, and investigation of the most effective methods of teaching and evaluating in junior and senior high school mathematics.

### 696 Applied Mathematics Project I (1) F,S

*Must be taken concurrently with MATH 460 and consent of instructor.* Preparation under faculty guidance of feasibility study and outline of a project in applied mathematics.

### 697 Applied Mathematics Project II (2) F,S

*Prerequisite:* MATH 696. Completion of applied mathematics project. Presentation of oral and written report.

### 699 Special Study in Mathematics (1-3) F,S

*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.*

### 710 Analysis I (3)

*Prerequisite:* MATH 470 or equivalent with a grade of C or better. The real number system. Metric spaces, including compactness and Baire category. Lebesgue measure and Lebesgue integration.

### 711 Analysis II (3)

*Prerequisite:* MATH 710. Differentiation and absolute continuity. Lebesgue spaces. Abstract measure and integration. Banach spaces.

### 725 Advanced Linear Algebra (3)

*Prerequisite:* MATH 335 with a grade of C or better. Vector spaces and linear maps on them. Inner prod-

uct spaces and the finite-dimensional spectral theorem. Eigenvalues, the singular-value decomposition, the characteristic polynomial, and canonical forms.

**730 Theory of Functions of a Complex Variable (3) F**

*Prerequisites:* MATH 710 with a grade of C or better, and consent of instructor. Elementary topology of the Euclidean plane necessary for a careful development of the theory of differentiation and integration. Integral theorems, residue theorems, power series, Laurent series, analytic continuation.

**740 Functional Analysis (3) S**

*Prerequisite:* MATH 710 with a grade of B or better. Hahn-Banach, uniform boundedness, open mapping, and closed graph theorems; Hilbert spaces and spectral theory; applications to approximation theory.

**750 General Topology (3) F**

*Prerequisite:* MATH 710 with a grade of B or better. Sets and relations, topological spaces, countability, separation axioms, compactness, connectedness, convergence, product spaces.

**760 Introduction to Measure and Lebesgue Integration (3) F**

*Prerequisite:* MATH 710 with a grade of B or better. Set functions and measure; Lebesgue measure and integral. Convergence theorems, absolute continuity, Fubini's theorem. Applications.

**770 Methods of Applied Analysis (3) F**

*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.

**850 Algebra (3) S**

*Prerequisite:* MATH 725 with a grade of C or better and 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.

**890 Seminar (1-3) F,S**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated as topics vary.

**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.

**899 Special Study (1-3) F,S**

*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

**100 Introduction to Meteorology (3) [GE] F,S**

Causes and nature of weather and its elements, including winds, storms, precipitation, and clouds. Bay Area weather and climate, interrelationships between human activity and weather, simple weather maps and weather forecasting. Designed for the non-science major.

**101 Introduction to Meteorology Laboratory (1) [GE] F,S**

*Prerequisite:* METR 100 (may be taken concurrently). Applications of meteorologic principles in explanation of weather. Observation, map and satellite photo interpretation, data plotting, instrument usage, and weather briefing. Interaction between weather phenomena and human activity. Extra fee required.

**102 Introduction to Oceanography (3) [GE]**

For course description, see GEOL 102.

**103 Introduction to Oceanography Laboratory (1) [GE]**

For course description, see GEOL 103. Extra fee required.

**200 Introduction to Atmospheric and Oceanic Physics and Thermodynamics (4)**

*Prerequisites:* MATH 107 or equivalent and consent of instructor. Must be taken concurrently with METR 201 and METR 206. Principles governing the thermodynamic state and chemical composition of the atmosphere and oceans. Radiative transfer, formation of clouds and precipitation, development of convective instability, air-sea energy, and mass exchanges.

**201 Introduction to Dynamic and Synoptic Meteorology and Oceanography (4)**

Must be taken concurrently with METR 200 and METR 206. Principles governing the motion of the atmosphere and ocean and the application of these principles to the analysis and prediction of weather systems and the evolution of gyre and thermohaline.

**206 Use of Computers in Meteorology and Oceanography (2)**

*Prerequisite:* METR 200 and METR 201 (both may be taken concurrently). 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.

**301 Weather Chart Analysis and Discussion (1)**

*Prerequisites:* METR 201, METR 206, and consent of instructor. Weather chart analysis techniques. Weather briefing and discussion. Paired with METR 801. Students who have completed METR 301 may not take METR 801 for credit. Laboratory.

**302 The Violent Atmosphere and Ocean (3) [GE] S**

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.

**309 Investigating Land, Sea, and Air Interactions (3)**

*Prerequisites:* completion of one GE Segment IIA: physical science course and one Segment IIB: biological science course. Enrollment priority given to liberal studies majors. For course description, see GEOL 309. (May not be repeated under alternate prefix.)

**310 Planetary Climate Change (4)**

*Prerequisites:* upper division standing; 12 units of science course work, including at least 6 units of physical, earth, or space science. For course description, see GEOL 310.

**356 California Weather Events (3) [GE]**

Investigation of the basic meteorology of normal and abnormal weather events in California.

**401 Atmospheric and Oceanic Physics (4)**

*Prerequisites:* METR 201 or METR 100; METR 206; PHYS 220 and MATH 228 (both may be taken concurrently). METR 406 recommended. Statics, structure, and composition of the atmosphere and oceans. Thermodynamics of the atmosphere, radiation physics, and heat budgets. Thermodynamic diagrams, techniques of numerical and graphical analysis. Classwork, 3 units; laboratory, 1 unit. Extra fee required.

**402 Atmospheric and Oceanic Dynamics I (4)**

*Prerequisites:* METR 401, MATH 228, or consent of instructor. Recommended: PHYS 240, MATH 245, and METR 406. Basic dynamical equations governing atmospheric and oceanic motions, particularly on large scales. Classwork, 3 units; laboratory, 1 unit. Extra fee required.

**403 Weather Analysis and Forecasting I (4)**

*Prerequisites:* METR 402 and METR 603 (may be taken concurrently) or consent of instructor. Must be taken concurrently with METR 502. 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.

**404 Meteorological and Oceanic Observing Techniques and Systems (2)**

*Prerequisites:* METR 101, METR 201 or METR 401 or GEOL/METR 103 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.

**406 Computer Programming with Applications in Meteorology and Oceanography (3)**

*Prerequisites:* METR 401 (may be taken concurrently); METR 206 or familiarity with UNIX; and/or consent of instructor. Principles of computer programming, illustrated with applications in meteorology and oceanography.

**420 Atmosphere-Ocean Interactions (4)**

*Prerequisite:* METR 402 or consent of instructor. Atmospheric behavior in the marine environment. Feedbacks in the air-sea environment including energy exchange and physical interaction, and the instruments utilized to monitor them. Classwork, 3 units; laboratory and fieldwork, 1 unit.

**465 Physical Oceanography (3)**

F

*Prerequisites:* GEOL 102, MATH 226, PHYS 220/222 (may be concurrent), senior standing, or consent of instructor. For course description, see GEOL 465. Classwork, 2 units; laboratory, 1 unit. (May not be repeated under alternate prefix.)

**485 Consulting Meteorology (2)**

*Prerequisites:* senior standing in meteorology, 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 785. Students who have completed METR 485 may not take METR 785 later for credit.

**490 Physical Principles of Remote Sensing for Geoscientists (3)**

*Prerequisites:* MATH 227 and PHYS 240 or consent of instructor. Physical principles of remote sensing are developed by examining electromagnetic radiation propagation through the atmosphere; design and limitations of satellites and sensors. Paired with METR 790. Students who have completed METR 490 may not take METR 790 for credit. Classwork, 2 units; laboratory, 1 unit.

**503 Weather Analysis and Forecasting II (4)**

*Prerequisites:* METR 403 and METR 502. Quasi- and semigeostrophic theory in the understanding of mid-latitude synoptic systems. Weather satellite analysis techniques. Precipitation systems in the middle latitudes. Operational forecasting. Classwork, 2 units; laboratory, 2 units.

**510 Introductory Cloud Physics (3)**

*Prerequisites:* METR 401, PHYS 230, or consent of instructor. Processes of cloud droplet growth. Morphology and evolution of clouds. Precipitation forms and their relationship to cloud structure. Electrification in clouds. Classwork, 2 units; laboratory/fieldwork, 1 unit. Extra fee required.

**693 Cooperative Education Program (6 or 12)**

F,S

*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.

**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 experi-

ence, and educational subsidy. Units do not count toward degree. Limited free elective credit is available.

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

*Prerequisites:* senior standing in meteorology, 3.0 GPA in major course work, and consent of meteorology faculty adviser. Directed advanced research in the solution of a specific meteorological problem. Product of semester's work to be an original contribution of limited scope but of publication quality.

**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.

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

*Prerequisite:* GPA of 3.0 or higher in atmospheric science course work and/or consent of meteorology faculty adviser. Special study in the laboratory, field, or research under the direction of a member of the meteorology staff. Student must present a report of work accomplished to the meteorology staff and the chair of the Department of Geosciences.

**Graduate Courses****700 Seminar in Applied Geosciences (3)**

*Prerequisites:* graduate status. For course description, see GEOL 700. (May not be repeated under alternate prefix.)

**701 Research Methods in Applied Geosciences (3)**

*Prerequisite:* GEOL/METR 700 or consent of instructor. For course description, see GEOL 701.

**702 Quantitative Methods in Applied Geosciences (3)**

*Prerequisites:* courses in basic statistics, calculus, and computer applications, or consent of instructor. For course description, see GEOL 702. Classwork, 2 units; laboratory and fieldwork, 1 unit. (May not be repeated under alternate prefix.)

**780 Advanced Weather Satellite Analysis Techniques (3)**

*Prerequisite:* graduate or senior standing. Weather satellite analysis and interpretation applied to an operational research problem. Classwork, 2 units; laboratory and fieldwork, 1 unit.

**785 Consulting Meteorology (2)**

*Prerequisites:* graduate or senior standing in meteorology, geology, or geography and consent of instructor. For course description, see METR 485. Paired with METR 485. Students who have completed METR 785 may not take METR 485 for credit.

**790 Physical Principles of Remote Sensing for Geoscientists (3)**

*Prerequisites:* MATH 227 and PHYS 240 or consent of instructor. For course description, see METR 490. Paired with METR 790. Students who have completed METR 790 may not take METR 490 for credit. Classwork, 2 units; laboratory, 1 unit.

**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.

**801 Weather Chart Analysis and Discussion (1)**

*Prerequisites:* METR 201, METR 206, and consent of instructor. For course description, see METR 301. Paired with METR 301. Students who have completed METR 801 may not take METR 301 for credit. Laboratory.

**810 Atmospheric and Oceanic Dynamics of Coastal Zones (3)**

*Prerequisites:* graduate or senior standing and METR 502, or consent of instructor. Dynamical equations that govern atmospheric and oceanic motions to understand phenomena of coastal zones. Land/sea breezes, topographically trapped Kelvin waves, coastal and island eddies, coastal upwelling and marine layers, etc.

**815 Analysis and Prediction of Severe Storms (3)**

*Prerequisites:* graduate or senior standing; METR 502 and 503. Large and local-scale controls on severe storms. Morphology of severe thunderstorms. Thunderstorm spectrum. Severe storms forecasting and analysis techniques.

**820 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.

**825 Synoptic Meteorology of Mid-latitude Oceans (3)**

*Prerequisites:* graduate or senior standing, and METR 502 and 503. Synoptic-scale extra tropical systems. Operational objective analysis. Air-sea interactions and their relation to the synoptic and the large scale circulation patterns over the Pacific Ocean.

**896 Directed Reading in Meteorology (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.

**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.

**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.

**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.

**MODERN GREEK STUDIES***Undergraduate Courses***150 Modern Greek I (3) [GE]**

Modern (demotic) Greek for beginners emphasizing oral expression, listening comprehension, reading, and writing. Grammar introduced in the context of readings. (Also offered as GRE 150.)

**151 Modern Greek II (3) [GE]**

*Prerequisite:* MGS/GRE 150 or equivalent. Continuation of first semester Greek. (Also offered as GRE 151.)

**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.

**315 Modern Greek Folk Culture (3)**

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

**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. (Also offered as ANTH 316. May not be repeated under alternate prefix.)

**365 Intermediate Modern Greek III (3)**

Continuation of second semester Modern Greek. Accelerated emphasis on conversation, grammar, and composition. (Also offered as GRE 365.)

**465 Modern Greek Poetry (3)**

*Prerequisite:* ENG 114 or equivalent. For course description, see WCL 465.

**470 Advanced Modern Greek IV (3) A**

*Prerequisite:* GRE/MGS 365 or equivalent. Continuation of third semester Modern Greek. Composition writing, reading and translating of texts. (Also offered as GRE 470.)

**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. (Also offered as CLAS 510/HIST 326. May not be repeated under alternate prefix.)

**555 Introduction to Modern Greek Literary Texts (3)**

*Prerequisite:* MGS 470 or equivalent. Reading and translation of selected texts in modern Greek literature.

Modern Greek grammar for upper division students.

**MUSEUM STUDIES***Undergraduate Courses***497 Writing for Museums, Galleries, and Other Institutions (3)**

*Prerequisites:* ENG 214 or equivalent and passing score on diagnostic writing test administered first week of class. Writing and editing guidebooks, labels, brochures, articles, reports, and catalogues for museums, galleries, and other cultural institutions. Includes audience-analysis, writing, editing, and formatting. (Also offered as ANTH 497.) (Formerly CLAR 497.)

**600 Dangerous Exhibitions: Culture Wars and Censorship in Museums (3)**

*Prerequisite:* ENG 214. Analysis of escalating censorship of museum exhibitions which confront difficult issues in art, history, and science. Examination of legal, political, social, and religious issues from the 'culture wars' that began in the 1990s.

**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.

**640 Museum Conservation and Restoration (3)**

*Prerequisite:* ENG 214 or equivalent. Theory and practice in museum conservation and restoration, using the Sutro Egyptian Collection. Analysis of museum artifacts. Paired with M S 740. Students who have completed M S 740 may not take M S 640 for credit. (Formerly CLAR 650.)

**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. (Formerly CLAR 560.)

**690 Documentation Techniques for Heritage Preservation (3)**

*Prerequisite:* ENG 214 or equivalent. Documentation of buildings and structures, buildings archaeology, strategic and emergency recording, HABS/HAER, the use of close-range photogrammetry and other advanced technologies for heritage preservation. Paired with M S 790. Students who have completed M S 690 may not take M S 790 for credit. (Formerly CLAR 570.)

*Graduate Courses***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.

**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.

**710 Museum Education and Public Programming (3)**

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.

**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.

**730 Museum Exhibit Design and Curation (3)**

Practical experience in all aspects of the development, promotion, documentation, and installation of museum exhibits using Treganza Anthropology Museum (fall semester) or the Sutro Egyptian Collection (spring semester) at SFSU. May be repeated for a total of 6 units. (Also offered as CLAR 730.)

**740 Museum Conservation and Restoration (3)**

For course description, see M S 640. Paired with M S 640. Students who have completed M S 640 may not take M S 740 for credit. (Formerly M S 850.)

**750 Museum Materials Analysis and Technology (3)**

*Prerequisite:* upper division or graduate status in archaeology, museum studies, history, or art history. Methods used by museums to document, authenticate, and date objects in art, history, natural history, and technology museums. Composition of objects and processes of manufacture and deterioration.

**760 Conservation of Natural History Collections (3)**

*Prerequisite:* consent of instructor. Analysis of major types of natural specimens, their properties, the potential hazards facing them, and appropriate conservation techniques. Organic and inorganic objects/materials found in all types of museums and collections.

**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.)

**790 Documentation Techniques for Heritage Preservation (3)**

*Prerequisite:* graduate status or consent of instructor. For course description, see M S 690. Paired with M S 690. Students who have completed M S 790 may not take M S 690 for credit. (Formerly CLAR 870.)

**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.

**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.

**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.

**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.

**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.

**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).

**880 Museum Internship (3)**

*Prerequisite:* M S 700 and c;assified 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.

**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. CR/NC grading only.

**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.

**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.

**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.

**899 Special Study (2-3)**

*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.

**MUSIC****Undergraduate Courses****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.

**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.

**130 Rudiments of Music Theory (3)**

*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.

**150 Concert Music (0)**

Audience participation at designated on-campus concerts scheduled by the Department of Music. Required each semester of music majors.

**201 Class Piano I (1)**

*Prerequisites:* music major or minor (priority given to music majors); others by departmental permission, placement audition required; ability to read treble and bass clefs. Instruction includes techniques, repertoire, and keyboard harmony.

**202 Class Piano II (1)**

*Prerequisites:* MUS 201 or equivalent. MUS 202 is normally taken concurrently with MUS 232. Priority given to music majors. Laboratory.

**203 Class Piano III (1)**

*Prerequisites:* MUS 202 or equivalent. MUS 203 is normally taken concurrently with MUS 233. Priority given to music majors. Laboratory.

**206 Beginning Jazz/Pop Piano (1)**

*Prerequisite:* 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.

**210 Keyboard Harmony (1)**

*Prerequisites:* placement test and recommendation of adviser. Priority given to music majors. Accelerated study of keyboard harmony which, by advisement, may be required of piano majors in lieu of MUS 201, MUS 202, and MUS 203. Laboratory.

**221 Fundamentals of Ear Training and Musicianship I (2)**

*Prerequisites:* 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.

**222 Fundamentals of Ear Training and Musicianship II (2)**

*Prerequisite:* MUS 221 or equivalent. Concurrent enrollment advised in MUS 232. Priority given to music majors. Laboratory.

**223 Fundamentals of Ear Training and Musicianship III (2)**

*Prerequisite:* MUS 222 or equivalent. Priority given to music majors. Laboratory.

**224 Ear Training and Musicianship IV (2)**

*Prerequisite:* MUS 223 or consent of instructor. Sight-reading, keyboard harmony and figured bass, harmonic analysis, ear training, and harmonic and rhythmic dictation.

**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.

**231 Contrapuntal Analysis and Synthesis (3)**

*Prerequisites:* 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.

**232 Diatonic Analysis and Synthesis (3)**

*Prerequisite:* 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.

**233 Chromatic Analysis and Synthesis (3)**

*Prerequisites:* 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.

**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.

**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.

**302 Class Piano V (1)**

*Prerequisite:* MUS 301 or equivalent. Priority given to music majors. Intermediate class piano. May be repeated for credit. Laboratory.

**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.

**309 Singing for Self Expression I (1) [GE]**

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.

**310 Singing for Self Expression II (1)**

*Completion of MUS 309 recommended, but open to all students by consent of instructor.* Performance in the development of vocal technique. Problems of style, singing without amplification, the relation of declamation to singing. Coaching and performance of song literature of contemporary musical genres.

**311 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.

**312 Class Voice II (1)**

*Prerequisites:* major/minor in music (priority); major in lyric theatre; others by departmental permission; MUS 311 or equivalent. May be repeated for credit.

**313 Voice Major (1)**

*Prerequisites:* music major, audition, departmental permission, and simultaneous enrollment in MUS 150 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.

**331 Jazz Guitar (1)**

*Prerequisites:* music reading ability; audition required. Jazz guitar styles/techniques. Reading up to fifth position, scales/arpeggios in all positions, jazz chord voicings, and chord/scale relationships. May be repeated once.

**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

**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.

Electric Bass

Flute

Oboe

Clarinet

Saxophone

Bassoon

Horn

Trumpet

Trombone

Tuba

Percussion

Violin

Viola

Cello

Double Bass

Harp

Guitar

**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.

**371 Orchestra (1) [GE]**

*Prerequisite:* audition. Major orchestral ensemble for qualified musicians. May be repeated.

**373 Chamber Singers (1) [GE]**

*Prerequisite:* audition. Sacred and secular music for vocal chamber ensemble. Open to all students by audition. May be repeated.

**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.

**376 Opera Workshop (1)**

*Prerequisite:* audition. Preparation and performance of opera scenes or opera production. May be repeated for credit.

**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.

**378 Chamber Music (1)**

*Prerequisite:* audition. Preparation and performance of chamber music literature by advanced students in small ensembles. May be repeated.

**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.

**383 Piano Accompaniment (1)**

*Prerequisite:* audition. Development of accompaniment skills through preparation and performance of selected vocal and instrumental literature. May be repeated once.

**384 Piano Ensemble (1)**

*Prerequisite:* audition. Preparation and performance of selected works for two pianos and one piano/four hands. May be repeated.

**387 Balinese Gamelan Ensemble (1)**

Playing techniques and musical language of the gamelan gong kebyar. No previous music experience required. May be repeated for a total of 6 units.

**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, Modal-free, Rock Fusion, Afro-Cuban, Creative World, and Vocal. May be repeated for a total of 12 units.

**389 New Music Ensemble (1)**

*Prerequisites:* performance ability on instrument or voice at major instruction level and audition. Preparation and performance of new ensemble music. May be repeated.

**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.

**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.

**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.

**393 Musician-in-Residence: Performances and Workshops for Children (1)**

*Prerequisite:* audition or interview demonstrating skills in either performance, composition, or teaching. Develop music performances and workshops for children at a local elementary school. Open to music majors only. May be repeated for a total of 3 units.

**394 Vocal Performance Practicum (1)**

*Prerequisite:* vocal performance major or consent of instructor. Performance in the classroom setting. Technical problems and performance practice of standard vocal repertoire. May be repeated.

**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.

**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.

**415 Orchestration (3)**

*Prerequisites:* MUS 233. Characteristics of modern orchestral instruments and the orchestrational styles and techniques of the 18th, 19th, and 20th centuries. Representative scores from the literature and assignments in scoring for various instrumental ensembles.

**416 Theory Seminar (3)**

*Prerequisite:* MUS 420. Topic to be specified in Class Schedule. May be repeated when topics vary.

**420 20th Century Techniques (3)**

*Prerequisite:* MUS 233. Compositional procedures and musical structures of the 20th century through studies of the literature and composition.

**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.

**429 Improvisation in Music and Dance (1)**

*Prerequisite:* music or dance major or consent of instructor. Review and application of improvisation as interdisciplinary and creative process in related areas of music and dance. Technical and critical aspects of the inherent collaborative process of both disciplines. May be repeated for a total of 4 units.

**431 Jazz Improvisation I (2)**

*Prerequisite:* MUS 430. Review and application of jazz improvisation concepts utilizing extended harmonic approaches and their applications. Structures used are primarily the blues and standard

tunes. May be repeated for a total of 4 units.

**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.

**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.

**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.

**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.

**440 Jazz Harmony (3)**

*Prerequisites:* MUS 203 and MUS 233 or equivalent background. Notation and realization of harmony in jazz music. Standard chord progressions and lead sheet symbols.

**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.

**445 The Creative Imagination in Music (3)**

*Prerequisite:* consent of instructor. Commonalities (common patterns, behavior—both social and academic, societal influences, etc.) in the development of creative minds as they relate to music.

**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.

**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.

**501 Music, The Listener's Art (3) [GE]**

Music literature in historical/cultural contexts. Skills and techniques of analytical listening and the reading of simple scores.

**502 The Opera (3)**

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.

**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.

**505 Music of the World's Peoples (3) [GE]**

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.

**506 Survey of Jazz (3) [GE]**

Jazz from early ragtime to the present. Musical-social-economic history of jazz and its interaction with classical and rock musics.

**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.

**510 Keyboard Literature (3)**

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.

**512 Rock Since the Mid-1960s (3) [GE]**

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.

**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.

**530 Musics of the Middle East and India (3)**

*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.

**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.

**532 Musics of Central and South America (3)**

*Prerequisite:* upper division standing or consent of instructor. Musical cultures of Mexico, Venezuela, Peru, Brazil, Argentina, etc. Colonial/classical music, folk, popular, Indian, rural, and urban styles. Instruments and their function, live performances. Students may substitute this course for MUS 520 as preparation for MUS 598.

**540 Seminar in Ethnomusicology (3)**

*Prerequisite:* 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.

**545 Traditional Kulintang Music and Dance of the Southern Philippines (3)**

*Prerequisite:* upper division standing and consent of instructor. For course description, see ETHS 545. May be repeated once. (Also offered as DANC 545.)

**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.

**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.

**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.

**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.

**560 Lyric Diction (3)**

Pronunciation of foreign language for singers. Includes Latin, Italian, German, French, and English using international phonetics. Open to non-music majors.

**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.

**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.

**601 Music for Children (3)**

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.

**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.

**610 General Music (3)**

*Prerequisite:* upper division standing. Materials and methods for teaching music in general music classes.

**612 The Voice (3)**

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.

**613 Practicum in Conducting (2)**

*Prerequisite:* MUS 640 or MUS 645; non-majors with consent of instructor. Develops competencies to teach in the schools: conducting/rehearsal skills. Selected literature is studied; participants play instruments and sing parts in the laboratory ensembles.

**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.

**615 Jazz Pedagogy (2)**

*Prerequisites:* MUS 440, MUS 441. Preparation to teach jazz musicianship, theory, and performance, in private, classroom, and rehearsal settings.

**616 Woodwinds (2)**

*Prerequisite:* departmental permission. Individual and class instruction involving techniques and performance problems of flute, clarinet, oboe, bassoon, and saxophone. Laboratory.

**618 Strings (2)**

*Prerequisite:* departmental permission. Individual and class instruction involving techniques and performance problems of violin, viola, violoncello, and string bass. Laboratory.

**620 Brass Instruments (2)**

*Prerequisite:* departmental permission. Individual and class instruction involving techniques and performance problems of horn, trumpet, trombone, baritone, and tuba. Laboratory.

**630 Instrumental Materials and Literature (3)**

*Prerequisite:* upper division standing. Teaching materials and literature for wind, string, and percussion instruments; organization and management of materials and equipment in school instrumental programs; e.g., budget and library.

**635 Choral Literature (3)**

*Prerequisite:* upper division standing. Choral music for children's voices, adolescent voices, men's and women's glee, and mixed chorus in schools.

**640 Instrumental Conducting (3)**

*Prerequisites:* MUS 415 and upper division standing. Elements of conducting with instrumental laboratory experience; the director's responsibility and rehearsal methods. Classwork, 2 units; laboratory, 1 unit.

**645 Choral Conducting (3)**

*Prerequisites:* upper division standing and ability to read, sing, and play selected vocal scores at the piano. Elements of conducting with choral laboratory experience; the director's responsibility and rehearsal methods. Classwork, 2 units; laboratory, 1 unit.

**650 Curriculum and Instruction in Music in the Secondary Schools (3)**

*Prerequisite:* music major or minor or equivalent. Principles and practices of curriculum planning and instruction in music. Objectives, issues, and problems; developmental considerations; and teaching techniques. Intended for senior or graduate music students.

**699 Special Problems 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****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.

**701 Graduate Seminar in Music (3)**

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

**710 Advanced Analysis (3)**

*Prerequisite:* fully classified graduate status, or conditional classification and approval of the student's graduate adviser. Seminar on analytical techniques and their application to in-depth study of major works from the literature of the 18th, 19th, and 20th centuries. May be repeated once.

**711 Seminar on Analysis of Post Tonal Music (3)**

*Prerequisites:* MUS 710 and consent of instructor. Trends in post tonal musical styles through study of works by American and European composers.



**716 Graduate Theory Seminar (3)**

*Prerequisite:* MUS 710 or consent of instructor. Topic to be specified in Class Schedule. May be repeated when topics vary.

**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.

**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.

**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.

**751 The Renaissance (3)**

*Prerequisite:* MUS 550.

**752 The Baroque (3)**

*Prerequisite:* MUS 550.

**753 The Classical Era (3)**

*Prerequisite:* MUS 551.

**754 The Romantic Era (3)**

*Prerequisite:* MUS 551.

**755 The Twentieth Century (3)**

*Prerequisite:* MUS 552.

**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.

**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      |            |          |

**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.

**780 Graduate Major Repertoire (2)**

*Prerequisite:* departmental permission. Solo literature required of master's candidates. May be repeated.

**781 Choral Conducting (2)**

*Prerequisite:* departmental permission. Directed individual projects in choral conducting. Evaluation and selection of appropriate choral literature. Rehearsal techniques.

**782 Instrumental Conducting (2)**

*Prerequisite:* departmental permission. Directed individual projects in instrumental conducting. Evaluation and selection of appropriate band and orchestral literature. Rehearsal techniques.

**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.

**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.

**898 Master'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.

**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.

**NEXA****Undergraduate Courses****200 Science and Culture (3)**

Interrelationships between sciences and humanities with the evolution of western culture with contrasts and comparisons to eastern traditions. Features interdisciplinary readings, films, discussions, and guest lecturers. Recommended as an introduction to the NEXA program.

**214 Second Year Written Composition: NEXA (3) [GE]**

*Prerequisite:* ENG 114. Elements of composition: sentence structure and the organized development of paragraphs and the whole essay. Interrelationships and differences among scientific and humanistic fields. Must be taken after student has completed 24 units and before completing 60 units. ABC/NC grading.

**281 Mythic and Scientific Thought (3) [GE]**

Ancient and modern myths are contrasted with scientific theories to investigate alternate modes of penetrating the mysteries of natural phenomena. Human origin and migrations, drifting continents, and purported catastrophic events in the light of divergent approaches.

**318 Literature as Science (3)**

*Prerequisite:* ENG 214 or equivalent. Literature responding to major scientific theories. Literary form as a meta-language, capable of critiquing, in symbolic terms, complex scientific hypotheses. Focus on Joseph Conrad and cultural relativism and the existential implications of Darwinian evolution.

**330 Marxism, Feminism, and Social Change (3) [GE]**

*Prerequisite:* upper division standing. Basic concepts of Marxism and of feminism and instances of their interaction with regard to selected social change movements, including race.

**333 The Idea of Progress (3)**

*Prerequisite:* ENG 214 or equivalent. The idea of progress from the Greeks forward. Background on progress in the Renaissance and the Enlightenment, and its social, political, and economic impacts. Main consideration: 18th-20th century progress in social philosophy, literature, and especially science. "Progress" today, including evolution.

**340 The Nuclear Revolution (3) [GE]**

*Prerequisite:* ENG 214. Scientific and literary aspects of the nuclear revolution. Physics associated with nuclear weapons, nuclear reactors, and nuclear accidents; relationships of the nuclear age with ancient myth and modern poetry.

**360 Visual World of Science and Art (3) [GE]**

Visual phenomena in the natural and man-made worlds as explored through science and art. The visual mechanisms and creative processes whereby scientists and artists clarify and reconstruct reality. Impact of visual information on science, art, political and social institutions.

**362 Computers in the Arts and Humanities (3) [GE]**

F,S

History of works created with, and about, computers; ways in which these works change traditional definitions of arts and humanities; consideration of future possibilities.

**368 Dangerous Liaisons: The Don Juan Myth in Music and Literature (3) [GE]**

*Prerequisite:* ENG 114. An examination of the Don Juan legend through literary, feminist, psychological, and musical representations. Female characters

such as Carmen and Lulu and their dual lives in literature and music.

**369 The Demonic Pact: The Faust Myth in Music and Literature (3) [GE]**

The Faust/Devil myth in music and literature from medieval times to the present: how musicians and writers converge and diverge in using the techniques of their respective disciplines to express the ideal of their age.

**375 The Big C: Literary and Scientific Perspectives on Cancer in Contemporary Life (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. Examination of cancer: biology; environmental factors; and the experience of cancer as represented in poetry, fiction, and personal narrative.

**380 Cosmologies and Worldviews (3) [GE]**

In every era, mankind has established correspondences between concepts of the universe and concepts of self and society: as above, so below. Extent and implications of those connections in classical, renaissance, and modern cultures.

**383 The City in Civilization (3) [GE]**

The city in historical and cross-cultural perspectives. Structure of ancient cities. Civitas and citizenship; specialization and innovation; art; culture; economics and government. Great cities of Renaissance Italy. Rise of the modern, industrialized city.

**384 Words, Culture, and Change (3) [GE]**

Interaction between language and culture is uniquely human. Preliterate cultures through a re-creation of their languages. How culture shapes and is shaped by language across the ages.

**387 Origins of Modern Science (3) [GE]**

Revolutionary conceptual, psychological, and aesthetic changes accompanied the establishment of the heliocentric over the Ptolemaic cosmology. These changes as they were reflected in religion, literature, and art as well as in philosophic and scientific thought and methodology.

**389 The Darwinian Revolution (3) [GE]**

Investigation of evolution as an idea in historical context. Darwin's Theory of Evolution and its impact on modern thought: science, religion, philosophy, literature, and politics. Contemporary speculations on the origins of life and their implications for biology and humanities.

**390 The Einsteinian Revolution (3) [GE]**

An exploration into relativity/quantum physics and literature to discover a new world of time, space, relationship, and models of observation. Relationships and convergences are sought among themes of writers and scientists.

**392 Nature, Culture, and Technology (3) [GE]**

Technology and cultural patterns of belief, social behavior, artistic expression, and communication. Interaction between culture and technology, including current issues and future prospects.

**397 Communication Between Humans and Other Animals (3) [GE]**

Techniques used in attempting to establish communication between humans and other animals. Ethical considerations arising from evidence of "awareness" in animals considered with the complex semantic analyses and experimental paradigms required to demonstrate two-way communication.

**440 Ethical Issues in Science and Technology (3) [GE]**

*Prerequisites:* junior standing and ENG 214. Ethical dimensions of science and technology. Conceptual and theoretical frameworks from the humanities and the life sciences.

**456 Reality and the New Physics (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. Einstein believed that the physical universe should be completely describable, but he believed that quantum mechanics fails to do this. Examines changing conceptions of what physics is about and whether it can describe reality.

**698 Senior Project (3)**

*Required for and available to NEXA majors and minors only.* Guided research, investigation, or scholarship, culminating in a substantial and rigorously prepared formal report or essay to be evaluated by a three-person team of NEXA coordinators.

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

*Prerequisites:* approval of instructor and Program Steering Committee. Supervised study of a particular convergent topic selected by the student in consultation with an adviser. Prior or concurrent enrollment in a NEXA course is recommended.

## NURSING

### Undergraduate Courses

**111 Professional Nursing Concepts (3) F,S**

*Prerequisites:* all program prerequisites. Must be taken concurrently with all Semester 1 Nursing courses. Conceptual framework of the nursing program. Principles of professional nursing practice focusing on communication skill, use of the nursing process, professional behaviors, and social and economic issues affecting the nursing profession.

**112 Healthy Aging (1)**

*Prerequisites:* all program prerequisites. Must be taken concurrently with all Semester 1 Nursing courses. Biopsychosocial aging concepts. Attitudes/myths of aging, normal physical, psychological, and cognitive changes and their impact on social function. Health risks and selected interventions.

**113 Nursing Practicum I (2)**

*Prerequisite:* admission to nursing major. Must be taken concurrently with all Semester 1 nursing courses. Theories and principles from nursing and related sciences applied to fundamental skills/procedures and nursing process. Clinical experience in gerontological settings. Clinical requirements apply. Laboratory. Extra fee required.

**114 Health Assessment (2)**

*Prerequisites:* all program prerequisites. 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.

**115 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.

**116 Basic Nursing Skills Laboratory (1)**

*Prerequisite:* admission to nursing major. Must be taken concurrently with all Semester 1 nursing courses. Theories and principles from nursing and related sciences applied to fundamental nursing skills and nursing process. Laboratory with demonstration, practice, and return demonstration. Extra fee may be required.

**222 Nursing of Adults (3)**

*Prerequisites:* all Semester 1 Nursing courses. Must be taken concurrently with all Semester 2 Nursing courses. Builds upon previous learning and theory relevant to acutely ill and convalescing adults.

**223 Nursing Practicum II (3)**

*Prerequisites:* all Semester 1 Nursing courses. Must be taken concurrently with all Semester 2 Nursing courses. Application of theoretical knowledge and technical skills in providing nursing care to acutely ill, chronically ill, and convalescing adults in a variety of settings. Laboratory.

**224 Technical Skills Laboratory (1)**

*Prerequisites:* all Semester 1 Nursing courses. Must be taken concurrently with all Semester 2 Nursing courses. Laboratory experience emphasizing selected complex technical skills. Extra fee required.

**225 Pharmacology (1-2)**

*Prerequisites:* all Semester 1 Nursing courses. Must be taken concurrently with all Semester 2 Nursing courses. Principles of drug therapy with a focus on the nurse's responsibilities, including client teaching. Drugs used in major disease classifications; common drug interactions.

**300 Bridge to SFSU Advanced Placement (4)**

*Prerequisite:* admission to APO RN program or the generic MSN program. Must be taken concurrently with NURS 113 for generic MSN program. 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.

**333 Pathophysiology (2)**

*Prerequisites:* completion of all Semester 1 Nursing courses. Must be taken concurrently with all Semester 2 Nursing courses. Pathophysiological changes in the acutely ill patient. Intersystem approach incorporating related laboratory values, drug therapies, and nursing interventions.

**334 Family Assessment and Maternity Nursing (3)**

*Prerequisites:* all Semester 2 Nursing courses. Must be taken concurrently with all Semester 3 Nursing courses. Family assessment theory. Nursing theory relevant to pregnant women, newborn infants, and their significant others during pregnancy, childbirth, and the postpartum period. Assessment and interventions to promote healthy outcomes for families.

**335 Nursing Practicum III: Maternity Nursing (3)**

*Prerequisites:* all Semester 2 Nursing courses. Must be taken concurrently with all Semester 3 Nursing courses. Application of maternity nursing and family assessment theory to childbearing women and their significant others, infants, and siblings during pregnancy, childbirth, and postpartum. Application of the nursing process to promote healthy outcomes.

**336 Nursing Care of Ill Children (2)**

*Prerequisites:* all Semester 2 Nursing courses. Must be taken concurrently with all Semester 3 Nursing courses. Nursing theory, concepts, and principles relevant to nursing care and health promotion of infants, children, adolescents, and their families. Assessments and interventions to promote healthy outcomes for children and their families.

**337 Nursing Practicum IV: Care of the Ill Child (3)**

F,S

*Prerequisites:* all Semester 2 Nursing courses. Must be taken concurrently with all Semester 3 Nursing courses. Application of pediatric nursing and family assessment theory to infants, children, adolescents, and families in a variety of settings. Clinical knowledge and skills for promoting healthy outcomes for children and their families.

**444 Psychiatric Mental Health Nursing (2)**

*Prerequisites:* all Semester 3 Nursing courses. Must be taken concurrently with all Semester 4 Nursing courses. Theories and principles of psychiatric nursing. Biopsychosocial foundations of behavior, communication, and psycho-pharmacology. Concepts of community mental health, rehabilitation, and promotion of healthy adaptation of individuals and families.

**445 Nursing Practicum V (3)**

*Prerequisites:* all Semester 3 Nursing courses. Must be taken concurrently with all Semester 4 Nursing courses. Clinical nursing practice with consumers of mental health services in hospital and community settings who are experiencing psychological stress, neurobiological disorders, and other psychiatric conditions. Biopsychosocial assessment, therapeutic communication, and interdisciplinary collaboration.

**446 Community Health Nursing and Major Issues in Community/Mental Health (3)**

F,S

*Prerequisites:* all Semester 3 Nursing courses. Must be taken concurrently with all Semester 4 Nursing courses. Public health and nursing concepts: the nurse's independent, interdisciplinary, and collaborative functions for providing care to individuals, families, and groups in community settings. Sociocultural, political, epidemiological community/mental health and economic issues influencing health care delivery.

**447 Nursing Practicum VI: Community Health (3)**

F,S

*Prerequisites:* all Semester 3 Nursing courses. Must be taken concurrently with all Semester 4 Nursing courses. Clinical experience in the application of epidemiological concepts in community health settings for populations at-risk throughout the life span and along the health-morbidity-mortality continuum. Direct care experiences with groups of clients in community settings.

**500 Death and Dying in Contemporary Society (3)**

[GE]

Attitudes, beliefs, practices, grief responses, and bioethical issues of dying and death which confront the individual and society. Ways to cope and help oneself and others to enhance life and maturity. (Also offered as GRN 510.)

**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.

**555 Nursing Research (2)**

F,S

*Prerequisites:* all Semester 4 Nursing courses. Must be taken concurrently with all Semester 5 Nursing courses. Principles of research theory, methodology, and critique with the goal of understanding the research process and its application in nursing. Role of the nurse as consumer of scientific research as applied to practice.

**556 Nursing Leadership and Health Care Issues (2)**

F,S

*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, nursing theories, and health care politics and policies. Development of group problem solving skills/change strategies. Transition to professional nurse role.

**557 Nursing Practicum VII (4)**

*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.

**600 Critical Care Nursing (2)**

*Prerequisites:* all junior level nursing courses. Open to RN's. Critical care nursing concepts. Assessment and interventions for patients in the intensive care unit. Use of hi-tech invasive and non-invasive modalities of medical and surgical interventions.

**601 Issues in Geriatric Health Care (3)**

*Prerequisites:* passed JEPET; biology introduction or its equivalent. Essential health and functional problems affecting the health and wellness of the older adult in a variety of settings. Assessment, intervention, and evaluation to correct, ameliorate or maintain older adults' independent function.

**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****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 evaluation of 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.

**701 Advanced Concepts in Nursing (3)**

*Prerequisite:* classified status in M.S.N. program. Methods of literature search and literature review to identify advanced concepts for practice in a selected nursing specialty. Analysis and application of concepts and research; identification of potential problems for investigation.

**702 Foundations of Management for Nurse Entrepreneurs (4)**

*Prerequisites:* classified status in M.S.N. program, NURS 700 and 701; concurrent enrollment in NURS 801. Administrative and management theories, literature, and models to current issues. Effects of technology, environment, and internal coalitions on the structure and management of health services organizations. Development of the nurse manager as an entrepreneur.

**705 Quality Assessment and Program Evaluation in Nursing (3)**

*Prerequisite:* classified status in M.S.N. program. Models and methods for quality improvement and program evaluation of health care and nursing services.

**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.

**707 Community-based Population-focused Nursing Practice (4)**

*Prerequisites:* NURS 700 and 701; must be taken concurrently with NURS 801. Theories and models for community-based population-focused practice in nursing. Community assessment and planning methods for initiation of health programs and services to reduce risk and promote health in specific vulnerable populations.

**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.

**709 Advanced Family Nurse Practitioner Diagnosis and Management in Primary Care (4)**

*Prerequisites:* NURS 707, 708, 801. Must be taken concurrently with NURS 802. Diagnosis and management of primary care problems, using research and theory from various disciplines.

**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.

**713 Case Management in Primary Care (3)**

*Prerequisites:* classified status in M.S.N. program; NURS 700 and 701. Must be taken concurrently with NURS 801. Case management models, theories, and research for application to clients/families across the lifespan. Caring for clients/families in primary care with a focus on rapid identification of health risks and modification of risk factors.

**714 Nursing Case Management (4)**

*Prerequisites:* classified status in M.S.N. program; NURS 700 and 701. Must be taken concurrently with NURS 801. Case management models for application to long-term care clients across the lifespan. Helping clients/families to adapt to long-term health problems.

**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.

**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. Develop-

ing effective nursing and team strategies to foster community empowerment and wellness.

**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.

**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.

**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.

**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.

**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.

**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. (Also offered as CFS 794.)

**800 Advanced Clinical Practicum (1-4)**

*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.

**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.

**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.

**803 Graduate Nursing Practicum III (6)**

*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.

**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.

**805 Advanced Clinical Management (1)**

*Prerequisites:* NURS 714, NURS 801. Application of the advanced practice role to develop clinical expertise in selected aspects of clinical management for a specific client population. Application of theory to clinical practice with a preceptor in the area of student's clinical interests.

**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.

**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.

**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.

**899 Special Study in Nursing (1 or 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.

**PHILOSOPHY***Undergraduate Courses***101 Introduction to Philosophy (3) [GE]**

Reflection on basic aspects of human experience, thought, and activity inspired by the writings of philosophers.

**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.

**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.

**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.

**150 Contemporary Moral/Political Issues (3) [GE]**

Theories of the good life, of ethics, of rights, and of justice, through the examination of contemporary moral issues: capital punishment, affirmative action, abortion, racial and sexual equality, privacy, pornography, and environmental protection. (Also offered as PLSI 150.)

**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.

**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.

**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.

**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.

**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.

**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.

**304 The Modern Revolution (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. For course description, see HUM 410.

**315 Introduction to Global Peace Studies (3) [GE]**

*Prerequisites:* ENG 214 and upper division standing. For course description, see GPS 315. (Also offered as IR 315. May not be repeated under alternate prefix.)

**330 Political Philosophy (3) [GE]**

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.

**335 Law and Society (3) [GE]**

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.

**340 Society, Law, Diversity (3) [GE]**

*Prerequisites:* PHIL 110 and ENG 214 or equivalents. Liberation and identity philosophies appeal sometimes to "equality," sometimes to "difference," as the key to transcending group-based oppression. Moral, social, legal, and phenomenological differences; disability and "double differences" at the intersections with race and gender.

**350 Philosophy of Science: The Natural Sciences (3) [GE]**

Philosophy of the natural sciences with attention to contemporary formulations. Useful background: one or more courses in physics.

**355 The Politics and Ethics of the Consumer Society (3)**

*Prerequisite:* upper division standing or consent of instructor. For course description, see PLSI 355.

**365 Science and Civilization (3) [GE]**

Role of science in modern civilization. Ethical aspects of science, scientific conceptions, and effects of science on the quality and direction of human existence.

**369 Philosophical Issues in Sexuality (3) [GE]**

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. (Also offered as HMSX 369.)

**375 Peace Law and Human Rights in the U.S. (3) [GE]**

For course description, see GPS 375.

**380 Philosophy of Law (3) [GE]**

Relationship of law and morality. Basis for legal accountability. Who should be accountable? For what? Why?

**382 Women and Philosophy: Selected Topics (3)**

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

**383 Ethics in Medicine (3) [GE]**

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.

**395 Ethical Issues in Science and Technology (3)**

*Topic to be specified in Class Schedule.* May be repeated for a total of 9 units when topics vary.

**409 Martin Heidegger (3)**

*Prerequisite:* ENG 114 or equivalent. For course description, see HUM 440.

**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.

**413 Hannah Arendt (3)**

For course description, see JS 413. (Also offered as HUM 413. May not be repeated under alternate prefix.)

**415 The Hebrew Bible (3) [GE]**

*Prerequisite:* ENG 214 or equivalent. For course description, see JS 415.

**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.

**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.

**432 Nietzsche and Postmodernism (3)**

*Prerequisite:* ENG 214. For course description, see HUM 432. (May not be repeated under alternate prefix.)

**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.

**440 Ethics at Work I (3) [GE]**

Ethical issues in work, professions, and business. Making ethics work in real settings, not on treating ethics as a vague ideal.

**445 Sex and Morality (3) [GE]**

Ethical theory and its applications to sexual conduct, therapy, and research. Fundamentals of moral augmentation; complicated, morality-laden issues associated with sexuality. (Also offered as HMSX 469.)

**450 Ethics (3) [GE]**

*Prerequisite:* one course in philosophy or consent of instructor. Major problems in ethical theory with attention to their contemporary formulations.

**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. (Also offered as HMSX 569.)

**457 The Nature of Self (3)**

*Prerequisite:* ENG 214 or equivalent. For course description, see PSY 457.

**460 Philosophy of Art (3) [GE]**

Problems in aesthetics; contemporary formulations. Useful background: one course in philosophy.

**465 Philosophy of Literature (3)**

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

**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.

**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.

**500 Philosophy of Religion (3)**

The nature and function of fundamental religious concepts and claims. Useful background: PHIL 300.

**501 Judaism, Christianity, and Islam (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. For course description, see JS 501. (Also offered as HUM 501.)

**502 World Religions (3) [GE]**

Major religions of mankind, their history and teachings: Hinduism, Buddhism, Confucianism, Taoism, Christianity, Judaism, and Islam. Useful background: one course in philosophy.

**508 Indian Philosophy and Religion (3)**

*Topic to be specified in Class Schedule.* Upanishads, Sankhya-Yoga; Buddhism, Jainism; Vedanta, Later Buddhism. Useful background: PHIL 500. May be repeated when different traditions are studied.

**510 Far Eastern Philosophy and Religion (3) [GE]**

*Topic to be specified in Class Schedule.* Confucianist, Taoist-Buddhist. May be repeated when different traditions are studied.

**512 Derrida and Jewish Tradition (3)**

*Prerequisite:* ENG 114 or equivalent. For course description, see HUM 412. (Also offered as JS 412.)

**514 Kabbalah and Mysticism in the Jewish Tradition (3) [GE]**

*Prerequisite:* ENG 114 or equivalent. For course description, see JS 410. (May not be repeated under alternate prefix.)

**515 Semitic Religious Thought (3) [GE]**

*Topic to be specified in Class Schedule.* Useful background: PHIL 500. May be repeated when different traditions are studied.

**520 Modern Religious Thought (3) [GE]**

The philosophical issues involved in modern theological thought.

**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. (Also offered as RELS 300.)

**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.

**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.

**551 Bible and Ethics: The Moral of the Story (3) [GE]**

*Prerequisite:* ENG 214. For course description, see JS 516. (Also offered as CLAS/CWL 416. May not be repeated under an alternate prefix.)

**570 Raza World Views and Philosophy (3)**

*Prerequisite:* upper division standing or consent of instructor. For course description, see RAZA 570. May not be repeated under an alternate prefix.

**601 Social Justice (3)**

*Prerequisite:* ENG 214 or equivalent. Recent theories of social justice: race, gender, class, sexual preference, age, disability, and immigrant status. Paired with PHIL 701. Students who have completed PHIL 601 may not take PHIL 701 later for credit.

**602 Democracy and Education (3)**

*Prerequisite:* ENG 214 or equivalent. Conceptual connections between democracy, citizenship, and education: issues in education and their bearing on philosophy. Paired with PHIL 702. Students who have completed PHIL 602 may not take PHIL 702 later for credit.

**605 Metaphysics (3)**

Metaphysical problems such as those of substance, cause, space, time, and God.

**610 Theory of Knowledge (3)**

Theories of knowledge with attention to their contemporary formulations. Useful background: PHIL 300.

**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. Paired with PHIL 820. Students who have completed PHIL 620 may not take PHIL 820 later for credit.

**625 Universals and Particulars (3)**

*Prerequisite:* ENG 214 or equivalent. Major problems arising from alternative accounts of the difference between particulars and universals. Main philosophical positions: nominalism, conceptualism, and realism. Historical background on contemporary formulations.

**630 Philosophy of Language (3)**

Language and symbolism with attention to the contemporary formulation of these problems. Paired with PHIL 830. Students who have completed PHIL 630 may not take PHIL 830 later for credit.

**635 Hermeneutics and Language (3)**

*Prerequisite:* ENG 214 or equivalent. Philosophical hermeneutics in relation to the philosophy of language as developed by authors such as Habermas, Apel, and Wittgenstein.

**660 Philosophy Seminar (3)**

*Restricted to seniors in either philosophy or philosophy and religion.* Analysis, integration, and application of advanced knowledge and skills as practiced in the study and presentation of key questions in philosophy and in the philosophical study of religion.

**670 Philosophy of Logic (3)**

*Prerequisite:* PHIL 205. Fundamental concepts in the most important areas of modern symbolic logic, the relations between these fields and the philosophical issues raised by basic questions in these disciplines.

**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. CR/NC only.

**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.

**696 Directed Reading in Philosophy and Religion (3)**

*Prerequisites:* senior standing and consent of instructor. Independent reading, study, and writing in the

student's special project area of philosophy and religion.

#### 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

#### 700 Seminar in Selected Problems (3)

*Topic to be specified in Class Schedule.* May be repeated when different problems are studied.

#### 701 Social Justice (3)

For course description, see PHIL 601. Paired with PHIL 601. Students who have completed PHIL 701 may not take PHIL 601 for credit.

#### 702 Democracy and Education (3)

For course description, see PHIL 602. Paired with PHIL 602. Students who have completed PHIL 702 may not take PHIL 602 for credit.

#### 704 Identity and Social Justice (3)

How are distinctions of race, gender and sexuality, disability, age, and class treated in traditional and innovative theories of justice, virtue, ethics, and the ethics of care? Which should influence medicine, law, and public policy?

#### 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.

#### 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.

#### 735 Seminar in Comparative Religious Thought (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 issues involved in the comparative study of Eastern and Western scriptural sources.

#### 751 Contemporary Theories of Moral Status (3)

Theories of moral status and their contrasting implications for such vital moral issues as abortion, animal rights, ecology, and the basis of human rights.

#### 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.

#### 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.

#### 777 Seminar in Teaching Critical Thinking (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. Development of informal logic as a discipline; teaching theories, methods, and materials; the assessment of critical thinking skills; recent contributions to and controversies in the field.

#### 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.

#### 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.

#### 820 Philosophy of Mind (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. For course description, see PHIL 620. Paired with PHIL 620. Students who have completed PHIL 820 may not take PHIL 620 for credit.

#### 830 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. For course description, see PHIL 630. Paired with PHIL 630. Students who have completed PHIL 830 may not take PHIL 630 for credit.

#### 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.

#### 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.

#### 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.

#### 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.

#### 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

### Undergraduate Course

#### 300 Introduction to Physical Rehabilitation (3)

*Prerequisite:* BIOL 100. The nature of professions whose focus is physical rehabilitation. History, current status, future directions; goals and methods of physical rehabilitation; professional opportunities; humanistic and scientific bases and their applications in practice; ethical and legal considerations; literature sources.

### Graduate Courses

*Prerequisite for each of the graduate courses in physical therapy:* admission to classified graduate status in physical therapy or consent of instructor.

#### 700 Comprehensive Physical Therapy Management (3)

*Prerequisites:* PT 201, 202, PATH 135.01. 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. Classwork, 1 unit; laboratory, 2 units.

#### 704 Education, Learning, and Memory in Physical Therapy (2)

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.

#### 705 Administration and Organization in Physical Therapy (2)

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.

#### 710 Neurological Pathokinesiology I (4)

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.

### 711 Neurological Pathokinesiology II: Assessment, Prevention, and Remediation (3)

*Prerequisite:* PT 710. 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.

### 720 Cardiopulmonary Pathokinesiology I (2)

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.

### 730 Scientific Inquiry and Research (3)

Logic of inquiry, principles of research design, and methodologies appropriate to scholarly activity in physical therapy. Review and critical appraisal of current literature; problem solving in conception, design, and execution of research.

### 735 Psychosocial Aspects of Physical Disability (3)

Psychosocial factors which may interact with physical therapy and affect independent functioning of disabled persons. Sexuality, loss, dependency, secondary gain, motivation, anger, providing constructive support to disabled persons, and coordination of services.

### 736 Ecological and Organizational Issues in Rehabilitation (3)

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.

### 737 New Dimensions in Physical Therapy (2)

*Prerequisites:* PT 200 and 201. 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.

### 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.)

### 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.)

### 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.)

### 801 Clinical Clerkship I (6)

*Prerequisites:* PT 701, PT 710, PT 720 with minimum GPA of 3.0. Full-time affiliation for six weeks. Students submit case reports, present inservices, and attend scheduled campus seminars. CR/NC grading only.

### 802 Clinical Clerkship II (6)

*Prerequisites:* PT 701, PT 710, PT 720 with minimum GPA of 3.0. Full-time affiliation for six weeks. Submit case reports, present inservices, and attend scheduled campus seminars. CR/NC grading only.

### 803 Clinical Clerkship III (6)

*Prerequisites:* PT 711, PT 702, and completion of comprehensive examination. One full-time clinical affiliation for 12 weeks or two full-time clinical affiliations for 6 weeks each. Submit case reports, present inservices, and attend scheduled campus seminars. CR/NC grading only.

### 890 Research Seminar in Physical Therapy (3)

*Prerequisite:* PT 253. 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.

### 899 Special Study (1-3)

*Prerequisites:* consent of major adviser and supervising faculty member. 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

#### 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.

#### 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.

### 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.

## PHYSICS

### Undergraduate Courses

#### 101 Conceptual Physics (3) [GE] F,S

*Prerequisite:* high school algebra and score of 550 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.

#### 102 Conceptual Physics Laboratory (1) [GE] F,S

Must be taken concurrently with PHYS 101. Laboratory exercises in basic physics. Extra fee required.

#### 111 General Physics I (3) [GE] F,S

*Prerequisite:* MATH 109 or equivalent. Must be taken concurrently with PHYS 112. Score of 550 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. Extra fee required.

#### 112 General Physics I Laboratory (1) [GE] F,S

Must be taken concurrently with PHYS 111. Mechanics, heat, and sound. Extra fee required.

#### 121 General Physics II (3) F,S

*Prerequisite:* PHYS 111. Must be taken concurrently with PHYS 122. Light, electricity, magnetism, atoms, and modern physics. Extra fee required.

#### 122 General Physics II Laboratory (1) F,S

Must be taken concurrently with PHYS 121. Light, electricity, magnetism, atoms, and modern physics. Extra fee required.

#### 140 Preparation for Physics (3)

*Prerequisites:* MATH 109 or equivalent. Score of 550 or above on entry level mathematics (ELM) examination, which must be taken prior to enrollment. Concepts of physics with emphasis on analytical reasoning. Review of mathematical concepts.

#### 220 General Physics with Calculus I (3) [GE] F,S

*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.

#### 221 General Physics with Calculus I Honors (3)

*Prerequisites:* high school physics or equivalent, MATH 226 with grade of B or better, and satisfactory score on physics placement examination. Must be taken concurrently with PHYS 222 and MATH 227 or equivalent. Recommended for majors and students



with good mathematical ability. Covers same material as PHYS 220 in more depth and with more applications. Classwork, 3 units; laboratory, 1 unit. Extra fee required.

**222 General Physics with Calculus I Laboratory (1) [GE] F,S**

*Must be taken concurrently with PHYS 220 or 221. Experiments in mechanics. Extra fee required.*

**230 General Physics with Calculus II (3) F,S**

*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.*

**231 General Physics with Calculus II Honors (3)**

*Prerequisites: MATH 227 and PHYS 220 with grades of B or better, or successful completion of PHYS 221. Must be taken concurrently with PHYS 232. Recommended for majors. Similar to PHYS 230 with greater depth, and increased emphasis on mathematical techniques and problem-solving skills.*

**232 General Physics with Calculus II Laboratory (1) F,S**

*Must be taken concurrently with PHYS 230 or 231. Experiments in electricity and magnetism. Extra fee required.*

**240 General Physics with Calculus III (3) F,S**

*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.*

**241 General Physics with Calculus III Honors (3)**

*Prerequisites: PHYS 230 or 231 with grade of B or better. Must be taken concurrently with PHYS 242 and MATH 228. Recommended for majors. Covers same material as PHYS 240 in greater depth and with more applications.*

**242 General Physics with Calculus III Laboratory (1) F,S**

*Must be taken concurrently with PHYS 240 or 241. Experiments in wave motion, optics, and thermodynamics.*

**320 Modern Physics I (3) F,S**

*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.*

**321 Modern Physics Laboratory (1) F,S**

*Must be taken concurrently with PHYS 320. Experiments on quantum physics and other phenomena of modern physics.*

**325 Modern Physics II (3) S**

*Prerequisite: PHYS 320. Molecules, crystal structure, theory of the solid state, semiconductors, the nucleus, elementary particles.*

**330 Analytical Mechanics I (3) F**

*Prerequisites: PHYS 230 or 231 and MATH 245 or 376. Vector analysis, fundamentals of statics, kinematics,*

*and dynamics of rigid bodies and systems of particles.*

**331 Analytical Mechanics II (3) S**

*Prerequisite: PHYS 330. Lagrange's and Hamilton's equations, mechanics of continuous media, and small oscillations of mechanical systems.*

**360 Electricity and Magnetism I (3) S**

*Prerequisites: PHYS 230 or 231, PHYS 330, and MATH 374 or PHYS 385. Electrostatics, including boundary-value problems, fields in polarizable media, magnetostatics.*

**370 Thermodynamics and Statistical Mechanics (3) F**

*Prerequisite: PHYS 240 and MATH 228, both 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.*

**385 Introduction to Theoretical Physics I (3)**

*Prerequisites: PHYS 240/242. 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.*

**420 Introduction to Astrophysics (3)**

*Prerequisites: CSC 210; MATH 376 or 245; PHYS 320; and either ASTR 410 or consent of instructor. For course description, see ASTR 420.*

**425 Introduction to the Theory of Relativity (3)**

*Prerequisites: PHYS 330, PHYS 360, MATH 374. Relativity as a single coherent subject. Special relativity, the tensor mathematics used in general relativity, and applications.*

**430 Quantum Mechanics I (3) F**

*Prerequisites: PHYS 320 and 360, MATH 374, and either MATH 376 or 245. Postulates of quantum mechanics, one-dimensional problems, barriers and the WKB approximation, angular momentum, and hydrogen atom.*

**431 Quantum Mechanics II (3) S**

*Prerequisite: PHYS 430. Problems in three dimensions, matrix mechanics, spin, application to atomic and molecular physics, perturbation theory, and scattering.*

**440 Computational Physics (4)**

*Prerequisites: PHYS 320, PHYS 430 or 460, CSC 210 (or equivalent by consent of instructor). 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.*

**450 Introduction to Solid State Physics (3) F**

*Prerequisites: PHYS 320/321 and MATH 245 or 376. Physical properties of crystalline solids including dielectrics, ferroelectrics, conductivity, semiconduc-*

*tors and superconductors: problems in solid state physics.*

**451 Solid State Physics Laboratory (1) F**

*Must be taken concurrently with PHYS 450. Crystal structure and experiments on the growth of crystals, and the physical properties of crystals.*

**455 Introduction to Digital Electronics (4)**

*Prerequisites: PHYS 230 and 240. PHYS 457 recommended. Principles of digital electronics, including binary number system, Boolean algebra, logic gates, multi-vibrators, gated counters, and analog-to-digital conversion. Classwork, 2 units; laboratory, 2 units. (Formerly PHYS 355.)*

**457 Principles of Electronics (4)**

*Prerequisites: PHYS 121 or 230 or 231 and MATH 226. 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.)*

**460 Electricity and Magnetism II (3) F**

*Prerequisite: PHYS 360. Maxwell's equations; waves in free space and in dielectrics; reflection and refraction; radiation; special-relativistic transformation of the electromagnetic field.*

**475 Statistical Physics (3) S**

*Prerequisites: PHYS 370, MATH 376, and MATH 374 (MATH 374 may be taken concurrently). 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. Paired with PHYS 775. Students who have completed PHYS 475 may not take PHYS 775 for credit.*

**480 Radiation and Modern Optics (3)**

*Prerequisites: PHYS 230, PHYS 240. PHYS 320, PHYS 360 recommended. Electromagnetic waves, sources and detectors. Geometric optics and optical instruments. Physical optics, including polarization, diffraction, and interference. Topics from modern optics including Fourier optics, lasers, guided waves, holography. (Formerly PHYS 340.)*

**485 Introduction to Theoretical Physics (3) F**

*Prerequisites: PHYS 320 and 360. Advanced concepts and techniques in mathematics applied to problems in physics. Applications in mechanics, electricity and magnetism, and fluids. Paired with PHYS 785. Students who have completed PHYS 485 may not take PHYS 785 for credit.*

**490 Physics Project Laboratory (1-2) F,S**

*Prerequisite: PHYS 321. Experiments from the fields of atomic, nuclear, solid-state, and optical physics with emphasis on electronic instrumentation and computer-assisted data acquisition. Laboratory may be repeated for 1 additional unit.*

**495 Introduction to Apparatus Fabrication (1)**

*Prerequisites: PHYS 490, 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.

**600 Science and Society (3) [GE] F**

*Prerequisites:* senior standing, and college science course of at least 3 units. Interrelationships of science and society within the evolution of culture, the influence of social and political development on scientific discovery, and the effects of these discoveries on human events.

**690 Seminar in Physics (3)**

*Prerequisite:* consent of instructor. Topic to be specified in Class Schedule. May be repeated 3 times when topics vary.

**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.

**699 Special Study in Physics (1-3) F,S**

*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*

**701 Classical Mechanics (3) F**

*Prerequisite:* PHYS 485. Lagrangian mechanics, rigid-body kinematics and dynamics, theory of small vibrations, Hamiltonian mechanics, and canonical transformations.

**703 Electromagnetic Theory (3)**

*Prerequisites:* PHYS 485 and 701. Electromagnetic properties of conducting materials, dielectrics, and ferromagnetic materials. Static and dynamic fields as well as topics in radiation.

**704 Electricity and Magnetism I (3) F**

*Prerequisites:* PHYS 485 and 701. Boundary-value problems in electrostatics, magnetostatics; Maxwell's equations and the causal structure of electrodynamics; plane waves and wave propagation.

**705 Electricity and Magnetism II (3) S**

*Prerequisite:* PHYS 704. Relativistic electrodynamics and radiation processes; optics; antenna theory; applications in particle physics and astrophysics.

**706 Quantum Mechanics (3) S**

*Prerequisites:* PHYS 701, 704. Bound states, collision theory, matrix mechanics, symmetry and groups, perturbation theory.

**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.

**711 Semiconductor Materials and Techniques (3) A**

*Prerequisite:* PHYS 450. Properties of semiconductor materials; techniques for the construction and manufacture of diodes, transistors, and integrated circuits from silicon and germanium.

**712 Physics of Plasmas (3) A**

*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.

**714 Low-Temperature Physics (3) A**

*Prerequisites:* PHYS 360, 430, 485. 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.

**715 Lasers and Quantum Optics (3) A**

*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.

**721 Physics of the Elementary Particles (3) A**

*Prerequisites:* PHYS 430, 485. Quantum numbers and classification of elementary particles; calculation of scattering cross sections and decay rates; theories of the interaction of fundamental particles: SU(3), the quark model, and the unified theory of the weak and electromagnetic interactions.

**722 Astrophysics (3) A**

*Prerequisites:* ASTR 420, PHYS 430, 475, 485, or consent of instructor. Radiative transfer theory; radiation processes; fluid dynamics; applications to topics of current research interest in astrophysics.

**723 Advanced Topics in Classical Mechanics (3) A**

*Prerequisite:* PHYS 701. Relativistic Lagrangians, Lagrangian densities, canonical transformation theory, Hamilton-Jacobi theory, action functions, and the transition to quantum mechanics.

**724 Advanced Topics in Quantum Theory (3) A**

*Prerequisites:* PHYS 705, 706. Approximation methods for bound and unbound states, identical particles and spin, semiclassical radiation theory, atoms, relativistic wave equations, and quantum fields.

**725 Special and General Relativity (3) A**

*Prerequisite:* PHYS 704. Tensor formulation of special relativity theory applied to mechanics and electromagnetism. Riemannian geometry and Einstein's geometric theory of gravity. Applications of general relativity to the Solar system, black holes, and cosmology.

**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-ma-

trix elements. Path-Integral evaluation of time-ordered products. Tree-level Feynman diagrams in quantum electrodynamics, and an introduction to non-abelian gauge theory.

**730 Seminar (1-3) F,S**

*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.

**740 Computational Physics (4)**

*Prerequisites:* PHYS 320, PHYS 430 or PHYS 460, CSC 210 (or equivalent by consent of instructor). 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.

**775 Statistical Physics (3)**

*Prerequisites:* PHYS 370, MATH 376 and 374 (MATH 374 may be taken concurrently). For course description, see PHYS 475. Paired with PHYS 475. Students who have completed PHYS 475 may not take PHYS 775 for credit.

**785 Introduction to Theoretical Physics (3)**

*Prerequisites:* PHYS 320, 360. For course description, see PHYS 485. Paired with PHYS 485. Students who have completed PHYS 485 may not take PHYS 785 for credit.

**897 Research (1-3) F,S**

*Prerequisite:* completed undergraduate major in physics. Independent and original laboratory investigation under supervision of a staff member. May be repeated.

**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.

**899 Special Study (1-3) F,S**

*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*

**100 Understanding Politics (3) [GE] F,S**

Concepts and principles of political thought, action, and institutions.

**106 Capitalism, Socialism, and Democracy: Introduction to Political Economy (3) [GE]**

For course description, see S S 106.

**150 Contemporary Moral/Political Issues (3) [GE]**

For course description, see PHIL 150.

**200 American Politics (3) [US,CA] F,S**

Governmental institutions, politics, and issues in the U.S. and California in historical, social, and cultural perspective. (Page reference for U.S. government and the California state and local government requirement can be found in the Index.)

**250 Comparative Politics (3)**

*Prerequisite:* PLSI 200 or equivalent. Governmental institutions, political processes, socio-economic development and issues in countries around the world.

**275 Introduction to Political Theory (3)**

*Prerequisite:* PLSI 200 or equivalent (American government requirement). Competing traditions of political theory: the foundation of political thought; the nature and scope of politics.

**300 Scientific Inquiry in Political Science (4)**

*Prerequisite:* PLSI 200 or equivalent. *Recommended:* a course in critical thinking. Science in the study of politics: problems and possibilities. Scientific reasoning and analysis. Uses of scientific method in political argument.

**301 Public Administration and Democracy (4)**

*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. (Formerly PLSI 501.)

**302 Introduction to International Political Economy (4)**

*Prerequisite:* I R 309. For course description, see I R 312. May not be repeated under alternate prefix.

**303 Introduction to Computer Applications in Political Science (1)**

*Prerequisite:* PLSI 200. For course description, see I R 303.

**310 Contemporary Issues in American Politics (3)**

Theories, problems, and issues relating to current public policies in the U.S. Environment and ecology, poverty, race relations, education, drugs, violence, war, and institutional reform.

**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.

**321 Development and Foreign Policy-Africa (4) [GE]**

*Prerequisite:* ENG 214. For course description, see I R 321.

**322 Latin American Policy Analysis (4) [GE]**

*Prerequisite:* ENG 214. For course description, see I R 322.

**325 Chinese Foreign Policy: Domestic and Foreign (4) [GE]**

*Prerequisite:* ENG 214. For course description, see I R 325.

**328 Domestic and Foreign Policy: Post-Communist Regions (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. For course description, see I R 328.

**329 U.S.-Japan Politics (4) [GE]**

*Prerequisite:* ENG 214 or consent of instructor. For course description, see I R 329.

**342 Strategy and War (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. For course description, see I R 342.

**351 Political Theory: The Classical Tradition (4)**

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.

**352 Political Theory: Reformation to Nineteenth Century (4)**

Political obligation, sovereignty, liberty, equality, property, and revolution, as presented in the works of Hobbes, Locke, Rousseau, Burke, and Tocqueville.

**353 Political Theory: The Twentieth Century (4)**

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.

**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.

**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. (Also offered as PHIL 355. May not be repeated under alternate prefix.)

**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.

**370 Classical Marxism (4)**

Origins, nature, and development of Marxist theory, and its subsequent practice in the hands of Lenin and the Revisionists of the Second International.

**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.

**400 Public Policy Process (3) [GE]**

*Prerequisites:* ENG 214 and upper division standing. For course description, see P A 400. May not be repeated under alternate prefix.

**404 Politics of China (4)**

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.

**407 Politics in Russia (4)**

*Prerequisite:* upper division standing. Contemporary government and politics of Russia, the way the past has shaped the present. Political institutions, political processes, and ideologies.

**408 The U.S.-Mexico Connection: Politics and Cultures (3)**

*Prerequisites:* ENG 214 and upper division standing. For description, see RAZA 670. May not be repeated under an alternate prefix.

**411 East Asian Politics (4)**

*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.

**412 South Asian Politics (4) [GE]**

*Prerequisite:* upper division standing. Political development in the South Asian states; political institutions and processes; parties and election; leadership; current policies and problems.

**414 Problems in Comparative Politics: Development and Social Change (4)**

*Topic to be specified in Class Schedule.* Comparative politics and foreign government. May be repeated once when topics vary.

**416 Ethnicity and Nationalism (4) [GE]**

*Prerequisite:* 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.

**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.

**430 Israeli Democracy: Politics, Institutions, and Society (3) [GE]**

*Prerequisite:* ENG 214. For course description, see JS 430. (Also offered as IR 430.)

**463 Public Opinion and Elections (4)**

*Prerequisite:* upper division standing. Role of public opinion in political process. Public opinion formation and electoral behavior in the U.S.

**464 Media and Politics (4)**

*Prerequisite:* upper division standing or consent of instructor. The role and impact of the media in American politics, with emphasis on election campaigns and the daily reporting of political news. Critical assessment draws on models from the study of mass communications. (Also offered as JOUR 464. May not be repeated under alternate prefix.)

**465 Political Attitudes and Behavior (4)**

*Prerequisite:* 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.

**466 Racial Politics and American Democracy (4) [GE]**

*Prerequisite:* ENG 214 or equivalent. Subordinate status of African-Americans in the U.S.; nexus between power, racism, and violence. Strategies for social change in terms of leadership, organization, and movements.

**467 Politics and Women in the U.S. (4)**

*Prerequisite:* upper division standing. Impact of the women's movement in U.S. politics. Participation of women in electoral politics, interest groups, political parties, elective office, public policy making, and political discourse.

**468 Political Parties (4)**

*Prerequisite:* upper division standing. Party origins, history, functions; how constitutions and electoral systems create types of parties; internal organization; nominations, campaigns, voter response; parties in government; party decline and possible reform.

**473 California Government and Politics (4) [GE,CA]**

*Prerequisite:* upper division standing. Policymaking and exercise of power within federal framework. State and local issues and institutions. Satisfies the California state and local government requirement. (Page reference for requirement can be found in the Index.)

**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. (Also offered as URBS 485.)

**476 Political Campaigning (4)**

*Prerequisite:* upper division standing. Professional campaign management; strategy formulation; campaign techniques. Classwork, 3 units; laboratory, 1 unit.

**477 Congress and the Presidency (4)**

Structure, roles, and functions of the legislative and executive branches of national government. Legislative-executive policy controversies.

**480 Policy Analysis (4) [GE]**

*Prerequisite:* upper division standing. Political and institutional settings for policy making. Concepts

and techniques of policy, planning, and administration. (Also offered as URBS 480.)

**492 Research Methods (4)**

*Prerequisite:* upper division standing. For course description, see URBS 492.

**493 Data Analysis (4) F,S**

*Prerequisite:* PLSI/URBS 492 or equivalent. Statistical analysis for politics, public policy, administration, and urban studies. Uses, interpretation, and limitations. (Also offered as URBS 493.)

**500 Labor and Government (3)**

For course description, see LABR 500.

**512 Urban Politics and Community Power (4)**

Political dynamics in the contemporary metropolitan context; bases and distribution of power in urban and suburban areas. Intergovernmental relations and urban political power.

**513 Politics, Law, and Urban Environment (4) [GE]**

*Prerequisite:* upper division standing. For course description, see URBS 513. (Also offered as GEOG 668.)

**520 Modernization and Third World Countries (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. For course description, see SS 520. (Also offered as I R 520.)

**544 Women in the World (4) [GE]**

For course description, see I R 544.

**551 Judicial Power in Public Policy Making (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.

**552 Individual Rights in the Constitution (4) [GE]**

*Prerequisite:* PLSI 200 or equivalent. Principles and meaning of the U.S. Constitution controlling the relationships between the individual and government.

**553 Legal Issues (4) [GE]**

*Prerequisite:* PLSI 551 or 552 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.

**560 Urban Poverty and Policy (4) [GE]**

*Prerequisite:* ENG 214 or equivalent. For course description, see URBS 560.

**561 Jurisprudence (4)**

Philosophy of law. Relationship between law, morality, social and political institutions. Various schools of jurisprudence.

**570 Urban Health Policy (3) [GE]**

For course description, see URBS 570. (Also offered as LABR 570. May not be repeated under alternate prefix.)

**580 Urban Housing (3) [GE]**

For course description, see URBS 580.

**603 Public Service Internships (3) F,S**

*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. (Also offered as URBS 603.)

**604 Internship Seminar (1) F,S**

Must be taken concurrently with PLSI 603. Analysis of internship experiences. May be repeated on advisement. (Also offered as URBS 604.)

**660 The Roles of Non-Profit Organizations in Urban Life (3) [GE]**

For course description, see S W 660. (Also offered as URBS 660.)

**685 Projects in 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 course materials, tutoring students, and conducting small discussion sections.

**699 Special Study (1-4) F,S**

*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****708 College Teaching of Political Science (4) F,S**

*Prerequisite:* PLSI 780. Planning and teaching of college level political science courses. Supervised experience to be evaluated through examination of contemporary literature and practice. May be repeated for a total of 8 units.

**710 Seminar in American Politics (4)**

*Prerequisite:* graduate standing or consent of instructor. American government and politics: political parties, interest groups, presidency, legislative assemblies, judiciary, electoral behavior, and political opinion.

**711 Topics in American Politics (4)**

*Prerequisite:* graduate status. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**720 Seminar in Comparative Politics (4)**

*Prerequisite:* graduate status or consent of instructor. Modernization and political development, development theory, bases of political power, and role of the state.

**721 Topics in Comparative Politics (4)**

*Prerequisite:* graduate status. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**730 Seminar in Political Theory (4)**

*Prerequisite:* graduate status or consent of instructor. Literature of political thought.

**731 Topics in Political Theory (4)**

*Prerequisite:* graduate status or consent of instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

**898 Master's Thesis (4) F,S**

*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.

**899 Special Study (1-4) F,S**

*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***101 Psychology of Personal Development (3) [GE]**

Basic concepts in psychology are used to foster the student's understanding of his/her own personal development and life endeavor.

**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.

**171 Quantitative Reasoning in Psychology (3) [GE]**

*Prerequisites:* a score of 550 or above on the Entry Level Mathematics (ELM) examination or an approved exemption. Fulfills G.E. quantitative reasoning requirement. Psychological statistics and measurement essential to understanding statistical and quantitative arguments. Classwork, 2 units; laboratory, 1 unit.

**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.

**298 Community Service Learning in Psychology (2)**

*Prerequisite:* consent of instructor. Must be taken concurrently with PSY 299. Designed for students enrolled in a psychology lecture course who wish to extend their experience through community service learning. Opportunity for students to present observations and discuss perceptions emerging from their participation in community service organizations.

**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.

**300 Current Issues in Psychology (3)**

*Prerequisite:* PSY 200 or equivalent. Priority 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.

**301 Psychological Foundations I: Cognition, Motivation, Physiology (3)**

*Prerequisite:* PSY 200. 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.

**302 Psychological Foundations II: Social, Personality, and Developmental (3)**

*Prerequisite:* PSY 200. Perspectives on human behavior from social psychology, personality theory, and developmental psychology. The application of psychological knowledge to human and social problems is emphasized.

**305 Contemporary Issues in Psychology (1-3)**

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.

**320 Sex and Relationships (3) [GE]**

Explores the role of sexuality in traditional and emerging forms of intimate relationships. (Also offered as HMSX 320.)

**330 Child Development (3) [GE]**

*Prerequisite:* a general introductory course in psychology. The development of the child from conception to adolescence. (Credit not given for both PSY 330 and 431.)

**371 Introductory Psychological Statistics (3)**

*Prerequisite:* quantitative reasoning course. Statistical theory and techniques appropriate to psychology and related fields; statistical inference and the testing of hypotheses. Classwork, 2 units; laboratory, 1 unit.

**400 Introduction to Research in Psychology (4)**

*Prerequisite:* PSY 200 or consent of instructor. Priority given to upper division psychology majors. Research that integrates methods with statistical techniques. Theoretical, empirical, and interpretive issues within four fundamental methods of inquiry--observational, measurement of individual characteristics, surveys, and experimentation. Classwork, 2 units; laboratory, 2 units.

**430 Adolescent Psychology (3) [GE]**

*Prerequisite:* PSY 330 or 431 or consent of instructor. The physical, intellectual, emotional, and social development during adolescence.

**431 Developmental Psychology (3) [GE]**

*Prerequisite:* an introductory course in general psychology or consent of instructor. Fundamental principles of developmental psychology; origin and development of behavior. (Credit not given for both PSY 431 and 330.)

**432 Cognitive Development: Language, Thinking, and Perception (3) [GE]**

*Prerequisite:* PSY 431 or consent of instructor. 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.

**433 Social, Emotional, and Personality Development (3) [GE]**

*Prerequisite:* PSY 431 or consent of instructor. (May be taken before, after, or concurrently with PSY 432.) Advanced course in developmental psychology covering theory and data in the areas of emotional, social, and personality development over the life span.

**435 Behavior Problems of Children (3) [GE]**

*Prerequisite:* PSY 330 or 431 or consent of instructor. Children's behavior disorders, child guidance facilities, and clinical methods used in the study and treatment of children with problems.

**436 The Development of Femeness and Maleness (4) [GE]**

Integration of biological, psychological, social, and cultural knowledge toward an understanding of the development of maleness and femeness. A critical look at theories of sex-typing and sex differences in behavior, with attention to sex-role stereotypes and social issues. (Also offered as HMSX 436.)

**440 Social Psychology (3) [GE]**

*Prerequisites:* upper division standing or consent of instructor. 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.

**441 The Psychology of the Family (3)**

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.

**442 Health Psychology (3)**

*Prerequisite:* PSY 200. 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.

**450 Variations in Human Sexuality (3) [GE]**

For course description, see HMSX 400.

**451 Theories of Personality (3)**

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.

**452 Abnormal Psychology: Minor Variants of Personality (3)**

*Prerequisites:* introductory course in general psychology or consent of instructor, and PSY 451. 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.

**454 Discussion of Sexual Variations (1)**

*Prerequisite:* HMSX 400/PSY 450 (may be taken concurrently). Expanded discussion of issues raised in lectures, speaker presentations, and films in HMSX 400/PSY 450. May include new materials and issues appropriate to small group discussions and the exploration of personal, social, and political issues.

**455 Cross-Cultural Perspectives in Psychology (3) [GE]**

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.

**456 Psychology of Human Sexual Behavior (3) [GE]**

*Prerequisites:* six units of psychology 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. (Also offered as HMSX 456.)

**457 The Nature of Self (3)**

*Prerequisite:* ENG 214 or equivalent. Exploration of diverse interpretations of the nature of self in Western and cross-cultural context; examines philosophical foundations of various cultural and psychological notions of self. Psychology majors must take this course with the psychology prefix. (Also offered as PHIL 457.)

**461 Introduction to Industrial/Organizational Psychology (3)**

*Prerequisite:* PSY 200 or equivalent. 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.

**462 Personnel Psychology (3)**

*Psy 371 or equivalent.* The application of psychological principles to personnel selection and related practices in organizations. Designed for the psychol-

ogy major interested in developing proficiency in personnel techniques.

**463 Human Factors (3)**

*Prerequisite:* PSY 200. 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.

**464 Environmental Psychology (3)**

*Prerequisite:* PSY 200 or equivalent, or consent of instructor. May be taken concurrently with PSY 540. 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.

**465 The Psychology of Work Life Stress (3) [GE]**

*Prerequisites:* PSY 200 or equivalent; ENG 214. 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.

**466 Training and Development in Organizations (3)**

*Prerequisite:* introductory course in general psychology. Application of principles of psychology in the development, delivery, and evaluation of training and development programs in work organizations.

**471 Introduction to Psychological Research and Statistics (7)**

*Prerequisites:* quantitative reasoning course and PSY 200. Priority given to upper division psychology majors. Statistics integrated with psychological research methods; measurement, surveys, quasi-experiments, and experimental designs. Substitutes for PSY 371 and 400. Classwork, 4 units; laboratory, 3 units.

**477 Psychological Measurement (3)**

*Prerequisites:* PSY 200 and 371 or consent of instructor. Psychological measurement: construction and evaluation of instruments, scaling, correlation. Classwork, 2 units; laboratory, 1 unit.

**491 Learning (3)**

*Prerequisite:* introductory course in general psychology. Methods, findings, and theory in animal and human learning and memory.

**492 Perception (3)**

*Prerequisite:* introductory course in general psychology. Methods, theory, and analysis of sensations and perceptions; the study of the psychological and biological approaches to perception.

**493 Motivation (3)**

*Prerequisite:* introductory course in general psychology. Theory and experimental evidence on the origins and direction of behavior. Learned and unlearned drives, anxiety, curiosity, and emotions.

**494 Cognitive Psychology (3)**

*Prerequisite:* introductory course in general psychology. An introduction to the dominant paradigm in cognitive psychology--the information processing approach to understanding the nature of human intelligence.

**496 Cognitive Science: Models of Human Psychology (3)**

*Prerequisite:* upper division standing. Cognitive science is the interdisciplinary study of human cognition that integrates methods and insights from cognitive psychology, linguistics, philosophy, anthropology, and computer science.

**497 General Experimental Psychology (3)**

*Prerequisites:* PSY 200, 371, and 400 or consent of instructor. Fundamental methods in psychological research with illustrations drawn from representative areas. Classwork, two units; laboratory, one unit. (Not open to transfer students who have had a lower division laboratory course in general psychology; e.g., PSY 1B. Such students should substitute an advanced experimental psychology course.)

**498 Cognitive Neuroscience: Psychological Models (3)**

*Prerequisites:* upper division standing and completion of Segment I Quantitative Reasoning requirement. Prospects and potential limitations of studying cognitive psychological processes from the integrated perspectives of cognitive psychology, neuropsychology, neural network modeling, and neuroscience.

**521 Introduction to Clinical Psychology (3)**

*Prerequisite:* a general introductory course in psychology or consent of instructor. The methods of clinical psychology, including case study techniques, psychodiagnostic evaluation, remediation of psychological distress. The current scope of professional practices in clinical psychology.

**525 Community Psychology (3)**

*Prerequisite:* upper division standing or consent of instructor. 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.

**531 Psycholinguistics (3) [GE]**

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.

**540 Introduction to Psychological Field Research (3)**

*Prerequisites:* PSY 200 and 400 or consent of instructor. Research methods applicable in psychological service agencies. Classwork, 2 units; laboratory, 1 unit.

**547 Social Conflict and Conflict Resolution (3) [GE]**

*Prerequisites:* six units of upper division psychology or consent of instructor. 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.

**558 Field Services Seminar (2)**

*Prerequisites:* upper division standing and consent of instructor; priority given to 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.

**559 Psychological Field Service (1-3)**

*Prerequisites:* upper division standing and consent of instructor; priority given to 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.

**571 Statistical Analysis of Psychological Research (3)**

*Prerequisite:* PSY 371 or equivalent. Statistical theory and techniques applicable to various experimental designs and other forms of psychological research. Classwork, 2 units; laboratory, 1 unit.

**581 Physiological Psychology I (3)**

*Prerequisites:* a general introductory course in psychology and upper division standing. 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.

**582 Physiological Psychology II (3)**

*Prerequisite:* PSY 581 or equivalent. 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.

**586 Physiological Psychology Laboratory I (1)**

*Prerequisite:* upper division standing. Current physiological recording techniques emphasizing electromyography (motor unit recruitment and fatigue), electroencephalography (relaxation and brain rhythms), electrocardiography and pulse (mechanics of the heart), respiratory cycle (breathing), galvanic skin response (lie detection), and reaction time. Laboratory.

**594 Psychology of Biofeedback Process (3) [GE]**

*Prerequisites:* PSY 371 and 400 or consent of instructor. Psychological states and their relationships to human emotion and cognition. Classwork, 2 units; laboratory, 1 unit.

**601 Theoretical Backgrounds in Psychology (3)**

*Prerequisites:* fifteen units of upper division courses in psychology. Historical backgrounds and development of basic concepts in psychology in a theoretical and systematic context; contemporary schools and systems in psychology outlined.

**630 The Psychology of Aging (4) [GE]**

*Prerequisites:* PSY 330, 431, or consent of instructor. 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.

**645 Group Processes (3)**

*Prerequisites:* a general introductory course in psychology and upper division standing. Practicum involving observation of interaction within the class and in outside groups, aimed at the investigation of the psychology of groups. CR/NC grading only.

**650 Research on Sexual Identity (3) [GE]**

For course description, see HMSX 600.

**671 A Statistical Package for Analysis of Psychological Research (3)**

*Prerequisite:* PSY 371 or equivalent. Use of a major statistical package for the analysis of psychological data. Classwork, 2 units; laboratory, 1 unit.

**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.

**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.

**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.

**693 Proseminar I (3)**

*Prerequisite:* selection as an honors candidate. 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.

**694 Proseminar II (3)**

*Prerequisites:* completion of Fall semester work in PSY 693, 695, 696, 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.

**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.

**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.

**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.

**Graduate Courses****721 Clinical Methods: Assessment of Intelligence and Perceptual-Motor Functioning (3)**

*Prerequisites:* classified graduate status and consent of instructor. 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.

**722 Clinical Methods: Personality Appraisal and Projective Techniques (3)**

*Prerequisite:* PSY 721. Problems in the assessment and diagnosis of individual personality and its disorders. Discussions, demonstrations, and applications of standard appraisal techniques including projective tests.

**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; general conceptual framework, models of intervention, professional ethics and law, roles and responsibilities. May be repeated for a maximum of 6 units.

**729 Psychology Practicum (3)**

*Must be taken concurrently first with PSY 721 and then with PSY 722.* Practicum in the methods and procedures of individual psychological evaluation and techniques of psychological intervention with individuals, couples, and families. May be repeated for a total of 6 units.

**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.

**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.

**736 Seminar in Psychology of Language (3)**

*Prerequisite:* consent of instructor. Problems of meaning, relation of language and thought, acquisition and loss of language, speech perception, and relations among theories of perception, learning, development, and language.

**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.

**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.

**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.

**741 Seminar in Group Dynamics (3)**

*Prerequisites:* PSY 645 or equivalent, graduate status, and consent of instructor. Examination of concepts and issues in group dynamics: group development, group structure, group norms and pressures, group goals, leadership, etc.

**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.

**747 Seminar in Social Conflict and Conflict Resolution (3)**

*Prerequisite:* consent of instructor. Critical analysis of psychological theories, methodology, and research on the origins and development of conflict among individuals, groups, and larger social units emphasizing principles of conflict resolution and the design and implementation of alternative means of managing disputes.

**748 Seminar to Accompany Field Problems in Social Psychology (3)**

Must be taken concurrently with PSY 749. Experiences in field problems in social psychology. May be repeated for a maximum of 6 units.

**749 Field Problems in Social Psychology (3)**

Must be taken concurrently with PSY 748. Supervised field experience in selected problems of social psychology. The student is assigned to an approved project or agency offering suitable psychological experience in the community. May be repeated for a maximum of 6 units.

**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.

**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.

**754 Seminar in Therapeutic and Developmental Change II (3)**

*Prerequisite:* PSY 753. Modern versions of psychodynamic theories incorporating family concepts, ethnicity, and community issues.

**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.

**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.

**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.

**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.

**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.

**767 Emerging Issues in Industrial/Organizational Psychology (3)**

*Prerequisites:* classified graduate status and consent of instructor. New developments in industrial/organizational psychology, with particular emphasis on problems in the 21st century workplace. Focus is on themes and questions that are increasingly receiving attention in the field setting.

**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.

**769 Field Experience in Industrial 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.

**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.

**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.

**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.

**777 Statistical Analysis of Multivariate Data Using Computers (4)**

*Prerequisites:* two applied statistics courses or equivalent. Theory and application of multivariate models, illustrative assigned problems, and laboratory in computer data processing. An integration of explanations of linear statistical models, existing computer programs which accomplish multivariate linear analyses, and analyses of data collected in student's own research (e.g., M.A. thesis). Classwork, three units; laboratory, one unit.



**790 Theoretical Background of Sexology (3)**

*Prerequisite:* graduate status or consent of instructor. For course description, see HMSX 790.

**792 Preseminar in Foundations of Contemporary Psychological Research (3 each)**

*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.*

**798 Research Colloquium (2)**

*Prerequisite:* classified graduate status or consent of instructor. Presentations and discussions of current or contemplated research projects. May be repeated; only 2 units may be counted for the degree. CR/NC grading only.

**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.

**821 Clinical Methods: Diagnosis and Advanced Psychopathology (3)**

*Prerequisite:* classified graduate status in clinical or school psychology master's program. Examines theory, clinical techniques, and professional practice in the evaluation of diagnostic and statistical manual-IV mental disorders including substance abuse disorders. Psychological diagnosis is integrated into case formulation.

**822 Clinical Methods: Marital and Family Systems Theory and Therapy (3)**

*Prerequisite:* PSY 821. Characteristic interpersonal interactions including those involving substance 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 are studied from an interpersonal, familial, and sociocultural perspective.

**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. May be repeated for a total of 6 units.*

**829 Advanced Psychology Practicum (3 or 6)**

*Prerequisite:* PSY 729. Must be taken concurrently with PSY 821, 822. Supervised advanced psychology practicum in clinical psychological evaluation and intervention. May be repeated for a total of 12 units.

**837 Research Methods in Developmental Psychology (3)**

*Prerequisite:* classified graduate status or consent of instructor. Supervised research experience on child behavior. Classwork, 2 units; laboratory, 1 unit.

**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.

**849 The Survey: Field Experience (3)**

*Prerequisite:* PSY 742. Supervised work in on-going surveys in the community.

**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.

**858 Conference to Accompany Psychology Internship (3)**

*Must be taken concurrently with PSY 859. Seminar in problems in the professional practice of psychology. May be repeated for a total of 6 units.*

**859 Psychology Internship (3 or 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.

**865 Ethics and Professional Responsibilities (3)**

*Prerequisite:* classified graduate status or consent of instructor. Examination of ethics and values underlying psychological services and of the responsibilities and duties which provide the basis for work in psychology. Focus is on human services in the areas of educational settings, industrial organizations, and community agencies.

**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.

**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.

**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.

**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***301 Public Administration and Democracy (4)**

*Prerequisite:* ENG 214 or equivalent. For course description, see PLSI 301. (May not be repeated under alternate prefix.)

**370 Introduction to Non-profit Administration (3)**

*Prerequisite:* consent of instructor. For course description, see REC 370. (May not be repeated under alternate prefix.)

**400 Public Policy Process (3) [GE]**

*Prerequisites:* ENG 214 and upper division standing. The process of public policy in the domestic context. (Also offered as PLSI 400. May not be repeated under alternate prefix.)

**490 Public Service as a Career (1)**

Career options in public service as explored through interviews and online research. Instruction included in developing skills assessment and resumes. Provided in an on-line format only—World Wide Web.

**570 Developing and Managing Resources in Non-profit Agencies (3)**

*Prerequisite:* REC 370 or consent of instructor. For course description, see REC 570. (May not be repeated under alternate prefix.)

*Graduate Courses***700 Democracy and Public Administration in Diverse Environments (3)**

Introduction to discipline of public administration. History and theoretical concepts in the field. Democratic values in the public and non-profit sectors with emphasis on recognition and support of diversity in the workplace.

**705 Research Methods for Public Administration (4)**

*Prerequisites:* upper division courses in research methods and data analysis. Applications of research design and data analysis to problems in policy and administration in the public and non-profit sectors.

**710 Microeconomic Analysis for Public Administration (3)**

*Prerequisite:* a course in microeconomics. Application of tools of economics to public policy and administration. Impact of public decision making on households and firms.

**715 Politics of Policy-making and Implementation (4)**

Process and politics of policy making and implementation. Impact of economic structure and fiscal constraints, and of social, historical, legal, political, and administrative conditions.

**720 Managing Organizational Behavior (3)**

Structures, goals, and behavior in organizations; focus upon organizational change and development.

**725 Managing Human Resources (3)**

Concepts, functions, issues, and skills associated with personnel management in public and non-profit organizations.

**730 Managing Budgets in the Public Sector (4)**

Budgeting process across governmental and non-profit sectors, political processes of budgeting. Budgeting, resource allocation, and budget analysis methods and computer applications.

**740 Public Sector Management (4)**

Application of administrative and management systems to public and non-profit sector organizations. Assessment of new trends in public management field.

**742 Strategic Public and Non-profit Management (3)**

*Prerequisite:* PA 740 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.

**745 Administration of Non-profit Organizations (4)**

*Prerequisite:* PA 700 or consent of instructor. Social policy roles, economic and political dimensions, and administrative issues for non-profit organizations. Regulation, governance, and organizational management issues.

**747 Developing Non-profit Resources (3)**

Developing non-profit resources through creating and managing fund-raising, grant-writing and volunteer/board of director resources.

**750 Financial Management in the Public Sector (3)**

*Prerequisites:* PA 710 and 730. Theoretical and practical aspects of financial management in both public and non-profit organizations.

**752 Administrative Law (3)**

*Prerequisite:* PA 700. Constitutional and legal context and content of public administration.

**755 Managing Information Systems in the Public Sector (4)**

*Prerequisites:* ECON 101, PA 700, and PA 710 or equivalent courses. Public sector information management policy and technological issues and applications; focuses upon current trends and new innovations in field.

**757 Digital Government (3)**

*Prerequisite:* PA 700. 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.

**760 Diversity in Public Organizations (3)**

*Prerequisite:* graduate status. Diversity in public organizations including personnel issues, service delivery, and public policy and legal issues.

**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.

**764 Contemporary Issues in Public Service Ethics (3)**

*Prerequisite:* graduate status or consent of instructor. Traditional and contemporary ethical issues as related to the role of public service in pursuit of public good.

**770 Policy and Organizational Analysis (4)**

*Prerequisite:* PA 710. Policy analysis and program evaluation used by legislatures and public sector agencies. Policy models, cost benefit evaluation techniques, evaluation research methods.

**775 Program Evaluation (3)**

*Prerequisites:* PA 710 and 715 or equivalent. Evaluation design, measurement, impact analysis, project implementation and management, and the design and evaluation of requests for proposals and proposals themselves.

**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.

**790 Special Topics in Public Administration (3)**

*Prerequisite:* P A 700. Topic to be specified in Class Schedule. May be repeated for a total of 6 units when topics vary.

**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.

**858 Seminar in Environmental and Land Use Planning (3)**

For course description, see GEOG 858.

**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.

**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.

**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.

**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.

**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***Undergraduate Courses***101 Contemporary Spanish (3)**

Intensive exercises in the Chicano/Latino barrio slang. Development of reading and writing skills. (Formerly LARA 101.)

**110 Critical Thinking and the Raza Experience (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. (Formerly LARA 110.)

**205 Cyber Raza: Culture and Community Online (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.

**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. (Formerly LARA 210.)

**214 Second Year Written Composition: Raza (3) [GE]**

*Prerequisite:* ENG 114. 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. (Formerly LARA 214.)

**215 Introduction to Raza Studies (3) F,S**

Philosophy, methodology, and structure of Raza studies. Relations between the Raza community and American institutions of higher education. Re-

quired for majors and minors in La Raza. (Formerly LARA 215.)

### 225 Survey of Raza 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. (Formerly LARA 225.)

### 230 Introduction to Contemporary Raza 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. (Formerly LARA 230.)

### 276 La Raza, Government, Ideals, and Constitution (3) [US,CA]

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. (Page reference for requirement can be found in the Index.) (Formerly LARA 276.)

### 280 Acculturation Problems of La Raza (3) [GE]

Socio-psychological impact of the acculturation/assimilation process on the Latino in the U.S. (Formerly LARA 280.)

### 305 La Raza 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). (Formerly LARA 505.)

### 315 La Raza in California (3)

*Prerequisite: upper division standing or consent of instructor.* The Raza experience in California from pre-colonial to contemporary times. Social, cultural, political, and economic factors of the La Raza heritage in California. (Formerly LARA 315.)

### 320 Art History of La Raza (3) [GE]

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. (Formerly LARA 320.)

### 350 Pre-Hispanic Art of Mexico (3)

For description, see ART 500. (Formerly LARA 350.)

### 376 History of La Raza in the U.S. (3) [US] F,S

Raza history from pre-colonial to contemporary times. Social, cultural, political, and economic heritage of La Raza and their contributions to American society. Satisfies the U.S. history requirement. (Page reference for requirement can be found in the Index.) (Formerly LARA 376.)

### 390 Selected Topics in La Raza (3)

*Prerequisite: upper division standing or consent of instructor. Topic to be specified in Class Schedule.* Themes for research and critical analysis. May be re-

peated for a total of 15 units as topics vary. (Formerly LARA 390.)

### 410 La Raza Women (3) [GE]

Political, social, economic, and cultural influences affecting the Raza woman in the U.S. and Latin America. La Raza women in the U.S. (Formerly LARA 410.)

### 415 Political Economy and Raza (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.

### 425 Comparative Music Folklore (3) [GE]

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. (Formerly LARA 425.)

### 430 Race, Crime, and Justice (3)

*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. (Formerly LARA 430.)

### 435 Oral History and Traditions: 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. (Formerly LARA 435.)

### 440 Caribbean Cultures and Spirituality (3)

*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.

### 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. (Also offered as WOMS 445. May not be repeated under alternate prefix.)

### 450 Indigenismo: Indigenous Culture and Personality (3) [GE]

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. (Formerly LARA 450.)

### 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.

### 460 Central Americans of the U.S.: History and Heritage (3) [GE]

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. (Formerly LARA 460.)

### 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.

### 467 Caribbeans in the U.S.: History and Heritage (3)

*Prerequisite: upper division standing or consent of instructor.* Examines the history of the Spanish Caribbeans in the U.S.

### 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.

### 490 La Raza Teatro Workshop (3) [GE] F,S

Works by La Raza playwrights. La Raza theater, its development and how it relates to the cultural aspects of La Raza people. May be repeated for a total of 6 units. (Formerly LARA 490.)

### 500 La Raza Community Mental Health (3) [GE]

Mental health services throughout the Bay Area: determine whether these services are relevant to the La Raza community. La Raza student and how he/she views him/herself and relationships with others in and outside the culture. (Formerly LARA 500.)

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

*Prerequisites: HIST 214 or equivalent; upper division standing or consent of instructor.* For description, see HIST 501. (Also offered as ANTH/S 501. May not be repeated under alternate prefix.) (Formerly LARA 501.)

### 510 Psychodynamics of the La Raza Family Structure (3) [GE] F,S

The psychological structure of the family; psychodynamics of family relationships in light of particular subcultural influences characteristic of La Raza ethnic background. Sex-role delineations. (Formerly LARA 510.)

**520 North and South American Cultural Expression (3) [GE]**

For course description, see HUM 520. (Formerly LARA 520.)

**530 La Raza and the Media (3) S**

Social, political, and economic effects of the mass media on La Raza people; special emphasis on Spanish-language media and learning media research skills. (Formerly LARA 530.)

**533 History of Women in Latin America (3) [GE]**

*Prerequisite:* upper division standing or consent of instructor. For description, see HIST 535. (Also offered as WOMS 535. May not be repeated under alternate prefix.) (Formerly LARA 533.)

**535 Raza Journalism (3)**

*Prerequisite:* RAZA 530. Principles and techniques of journalistic process. Reporting, newswriting, editing, and production of a Raza community newspaper. May be repeated for a total of 6 units. (Formerly LARA 535.)

**560 Contemporary Literature of La Raza (3)**

Literature produced by the people of La Raza both in the U.S. and in Latin America during this century. Writings produced since 1950; ways in which the writers of La Raza are expressing and furthering the movement of their people. (Formerly LARA 560.)

**570 Raza World Views and Philosophy (3)**

*Prerequisite:* upper division standing or consent of instructor. Ethical values and the philosophical assumptions underlying these values; the American judicial, educational, and governmental institutions; and a comparison of these values and assumptions with those of the La Raza community. (Also offered as PHIL 570. May not be repeated under alternate prefix.) (Formerly LARA 570.)

**575 Raza 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.

**580 Issues on 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 underrepresented students, language, curriculum, and access. (Formerly LARA 580.)

**590 Environmental Justice: La Raza Issues (3)**

*Prerequisite:* upper division standing or consent of instructor. Issues of environmental racism as it affects the Chicano/Latino community in the San Francisco Bay Area. Issues of housing, violence, school, and unemployment within the framework of urban ecology. (Formerly LARA 590.)

**605 La Raza Bilingual Advanced Writing Workshop (Fiction and Nonfiction) (3)**

*Prerequisite:* RAZA 505 or a creative writing workshop with a grade of B or better or consent of instructor. Aspects of bilingual/bicultural writing: family, dichos,

metaphors, myths, traditions, and humor in two or more languages. (Formerly LARA 605.)

**640 Sociological Perspectives of La Raza (3)**

*Prerequisite:* upper division standing or consent of instructor. Sociological perspectives of Raza peoples and cultures in the U.S. Historically structured race, class, and gender inequities are examined. Sociodemographics, group consciousness, community organizations, popular culture, barrio and family life.

**660 Chicano/Latino Politics (3) [GE] A**

*Prerequisite:* RAZA 276 or consent of instructor. Social and political movements focusing on contemporary movements of Raza, including election-based, migrant rights, labor, and education-based movements. (Formerly LARA 660.)

**670 The U.S.-Mexico Connection: Politics and Cultures (3)**

*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. (Also offered as PLSI 408. May not be repeated under alternate prefix.) (Formerly LARA 670.)

**679 Genesis of the History of 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. (Formerly LARA 679.)

**680 La Raza and Community Organizing (3) [GE]**

La 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. (Formerly LARA 680.)

**685 Projects in the Teaching of La Raza 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. (Formerly LARA 685.)

**690 Raza Community Fieldwork (3)**

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 RAZA 680. May be repeated for a total of 6 units.

**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. (Formerly RAZA 690.)

**693 Cuba: Community Service Learning (3)**

*Prerequisite:* 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.

**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.

**698 Senior Seminar in Raza Studies (3) F,S**

*Prerequisites:* completion of 9 units in Raza 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 Raza studies curriculum and programs. (Formerly LARA 698.)

**699 Special Study (1-3) F,S**

*Prerequisites:* approval of the department and the instructor concerned. An intensive study of a particular problem in La Raza studies under the direction of a member of the department. RAZA 699 is repeatable up to 6 units. (Formerly LARA 699.)

**Graduate Course****707 Seminar in Raza 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. (Formerly LARA 707.)

**RECREATION AND LEISURE STUDIES****Undergraduate Courses****110 Activity Director Training (3)**

Training designed to prepare participants for the role of activity director at health care facilities.

**152 Aquatic Sports (2)**

*Must be taken concurrently with REC 184. 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.

**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.

**184 Small Boat Maintenance (1)**

*Must be taken concurrently with REC 152.* Repair and maintenance of wood and fiberglass hulls; rigging, sails, and accessories. May be repeated for a total of 2 units.

**200 Introduction to Recreation and Leisure Services (3) F,S**

Recreation as a profession; outline of the history and principles; public, nonprofit, and commercial agencies; fundamentals of leadership and programming; trends; introduction to the literature in the field.

**220 Leisure Lifestyle Development (3) [GE] F,S**

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. Classwork, 2 units; laboratory, 1 unit.

**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.

**260 Leisure Travel and Tourism (3)**

Scope and nature of leisure travel and tourism.

**300 Leisure Leadership (3)**

Styles of recreation leadership that apply to supervision, interpersonal relationships, group dynamics, instruction, and leisure counseling in leisure settings. Influences of individual and group recreation behavior. Effective use of planning, problem solving, and evaluation to enhance leisure leadership skills.

**330 Arts and Crafts for Leisure (3) [GE] F,S**

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.

**340 Conference, Event Planning, and Management (3) F**

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.

**350 Leadership in University Union/Student Activities Programs (1-3) F,S**

Supervised leadership field experience in a university union/student activities program. May be repeated for a total of 6 units.

**360 Outdoor Recreation Leadership (1) F,S**

*Prerequisites:* REC 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.

**365 White Water Raft Guiding (3)**

*Prerequisites:* REC 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.

**370 Principles of Nonprofit Administration (3)**

*Prerequisite:* 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. (Also offered as PA 370. May not be repeated under alternate prefix.)

**380 Developmental Play Processes (3) [GE] F**

Issues related to play, learning, and human development throughout the life span; connection to worldwide progressive play alternatives (i.e., New Games, Adventure Ropes Courses, etc.) that foster personal growth and community development. Classwork, 2 units; laboratory, 1 unit.

**400 Theory of Program Planning (3) S**

*Prerequisite:* REC 200 or equivalent. Principles and practices in planning, observing, conducting, and evaluating recreation programs for all ages in various agencies.

**410 Foundations of Therapeutic Recreation (3) F**

*Prerequisites:* REC 200, 380, 400, or consent of instructor. Disabling conditions and implications for therapeutic recreation leadership, activity adaptation, programming, and existing opportunities in community and clinical settings.

**420 Leisure and Contemporary Society (3) [GE] F,S**

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.

**430 Ecology of Outdoor Recreation (3) S**

*Prerequisite:* consent of instructor. Parks and outdoor recreation. Conservation of resources, appreciation, use and misuse of the natural environment.

**440 Urban Recreation and Leisure Services (3)**

*Prerequisite:* REC 400 or consent of instructor. Urban recreation needs, issues, and services; socio-political, ethnographic, and demographic influences on recreation and related human service organizations; successful leadership, programming, administrative, and planning principles for urban leisure services.

**445 Recreation Therapy and the Expressive Arts (3) F**

Expressive arts and their use in a therapeutic recreation setting: art, music, movement and dance, poetry, and drama therapy.

**460 Recreation Destination Resorts (3)**

*Prerequisite:* REC 260 or HM 102 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.

**500 Organization of Recreation and Leisure Services (3) S**

*Prerequisites:* REC 400 and consent of instructor. Principles and practices in community organization for recreation; administrative structure of leisure service agencies; analysis and evaluation.

**520 Park and Outdoor Leisure Resources (3) F**

*Prerequisites:* REC 200 and consent of instructor. Parks operation on the municipal, county, state, and federal levels: required space, land acquisition, layout of facilities, financing, sanitation, ecology, conservation, landscape design, staffing.

**540 Administration of Private Recreation Enterprises (3)**

*Prerequisites:* REC 260, REC 500, or MKTG 431, depending on major. Private, profit, and non-profit recreation/leisure sector; managing and marketing leisure enterprises; consumer leisure behavior and products and their implication for managers and entrepreneurs.

**550 Planning and Evaluation of Recreation and Leisure Services (3) F**

*Prerequisite:* REC 500. Supervisory and administrative functions in various recreation agencies with emphasis on evaluating the effectiveness of currently accepted practices. Planning principles and their application.

**560 Current Practices in Parks, Recreation, and Leisure Services (1-3) F**

*Prerequisite:* REC 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.

**570 Developing and Managing Resources in Nonprofit Agencies (3)**

*Prerequisite:* REC 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. (Also offered as PA 570. May not be repeated under alternate prefix.)

**605 Ecotourism Facilities and Services (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.

**609 Therapeutic Recreation: Professional Issues and Trends (3)**

*Prerequisite:* REC 410 or consent of instructor. Therapeutic recreation; professional/administrative is-

sues and trends in community/clinical rehabilitation.

**610 Therapeutic Recreation Principles and Procedures: Clinical and Community Application (3) F**

*Prerequisite:* REC 410 or consent of instructor. Clinical/community client case study applications; assessment, treatment planning, program planning, implementation, and evaluation. Specialized techniques, leisure education/counseling, standards of practice, quality assurance issues, and research studies as they apply to direct service provision.

**660 Seminar in Current Professional Issues (3)**

*Prerequisites:* consent of instructor and senior standing. Current issues and professional practices in recreation and leisure services.

**680 Directed Field Experience in Recreation and Leisure Services (6)**

*Prerequisites:* completion of major core requirements, 800 verified hours of paid or volunteer experience in recreation settings, and/or consent of instructor. Program planning, supervision, and evaluation in a recreation and leisure service agency under qualified personnel.

**690 Directed Management Experience in Recreation and Leisure Services (6)**

*Prerequisites:* completion of major core requirement, 800 verified hours of paid or volunteer experience in recreation settings, and/or consent of instructor. Facility, personnel, and fiscal management; administrative and legal aspects; lay commissions; political implications.

**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.

*Graduate Courses*

**710 Research Methods in Recreation and Leisure Studies (3) F**

*Prerequisites:* graduate status and 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.

**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.

**750 Leisure Education (3) F**

*Prerequisites:* graduate status and consent of instructor. Analysis of origins, development, and expression in individual leisure behavior. Theoretical models, measurement, and evaluation of leisure behavior. Strategies, techniques, and resources for leisure education and counseling. Clinical and com-

munity roles, responsibilities, and trends regarding leisure well-being and quality of life.

**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.

**862 Management of Leisure Services (3) S,A**

*Prerequisites:* REC 500 or 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.

**880 Trends and Issues in Leisure Services (3) F**

*Prerequisites:* graduate status and consent of instructor. Intensive study of selected problems in recreation.

**890 Internship (3) F,S**

*Prerequisite:* consent of instructor. Field experience in recreation in a medical, paramedical, or institutional setting under the supervision of specialists in recreation.

**896 Directed Reading in Leisure Studies (3)**

*Prerequisites:* graduate adviser approval and REC 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.

**897 Independent Research in Leisure Studies (3)**

*Prerequisites:* graduate adviser approval and REC 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.

**898 Master's Thesis (3) F,S**

*Prerequisites:* advancement to candidacy for the Master of Arts; REC 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.

**899 Special Study (3) F,S**

*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.

**RELIGIOUS STUDIES**

For other religious studies courses, see PHIL 105 and philosophy courses numbered 500–599.

*Undergraduate Courses*

**300 The Nature of Religious Experience (3) [GE]**

For course description, see PHIL 525.

**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.

**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.)

**102 Second Semester Russian (5) [GE]**

*Prerequisite:* RUSS 101 or equivalent. Continuation of RUSS 101.

**103 Third Semester Russian (5) [GE]**

*Prerequisite:* RUSS 102 or equivalent. Understanding, speaking, reading, and writing Russian at the intermediate level; Russian culture.

**104 Fourth Semester Russian (5) [GE]**

*Prerequisite:* RUSS 103 or equivalent. Continuation of RUSS 103.

**301 Reading and Grammar (3)**

*Prerequisite:* RUSS 103 or consent of instructor. Reading modern Russian. Development of vocabulary, syntax, and acquisition of idiomatic expressions.

**305 Advanced Grammar and Composition (3) [GE]**

*Prerequisite:* RUSS 104 or equivalent. Analysis of grammatical constructions. Exercises in composition.

**306 Advanced Conversation and Composition (3) [GE]**

*Prerequisite:* RUSS 305 or equivalent. An intensive reading-conversation course.

**307 Advanced Reading and Composition (3) [GE]**

*Prerequisite:* RUSS 305 or equivalent. Reading and composition designed to develop writing for advanced work.

**308 Stylistics and Composition (3) [GE] F**

*Prerequisite:* RUSS 305 or 307 or consent of instructor. Reading and analysis of Russian short fiction from the 19th and 20th centuries.

**325 Practical Linguistics of Russian (3) [GE]**

*Prerequisite:* RUSS 104 or equivalent. Application of linguistics to the study of Russian sound patterns and structures.

**340 Contemporary Russian Press (3) [GE]**

*Prerequisite:* RUSS 104 or equivalent. Readings in the Russian press: contemporary terminology and phraseology in political, cultural, and scientific writings. May be repeated once for a total of 6 units.

**390 Business Russian (3) [GE]**

*Prerequisite:* RUSS 104 or equivalent. Learning Russian business communication skills. Readings in Russian economics, politics, and social issues.

**401 Russian Culture and Civilization (3) [GE]**

*Prerequisite:* RUSS 104 or equivalent. Russian culture and civilization.

**510 Russian Literature I (3) [GE]**

*Prerequisite:* RUSS 401 or consent of instructor. Russian literature from its origins through the 18th century.

**511 Russian Literature II (3) [GE]**

*Prerequisite:* RUSS 401 or consent of instructor. Representative works and movements in Russian literature from the beginning of the 19th century to the beginning of the 20th century.

**561 Russian Short Story (3)**

*Topic to be specified in Class Schedule.* May be repeated when different works or periods are offered.

**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.

**600 Contemporary Russian Literature in English (3)**

*Prerequisite:* ENG 416 or consent of instructor. Russian literature in English in/outside the Soviet Union--1917 to Glasnost. Paired with RUSS 800. Students who have completed RUSS 600 may not take RUSS 800 later for credit.

**605 Women's Voices in Russian Literature in English (3)**

*Prerequisite:* ENG 416 or consent of instructor. Survey of short prose and poetry by 18th to 20th century Russian women authors in English translation, presenting a variety of genres: memoirs, articles, feminist manifestos, essays, poetry, and short stories. (Also offered as CWL 605. May not be repeated under alternate prefix.)

**610 Dostoevsky in English Translation (3)**

*Prerequisite:* ENG 416 or consent of instructor. Dostoevsky's seven important works. Paired with RUSS 810. Students who have completed RUSS 610 may not take RUSS 810 later for credit.

**611 Chekhov's Plays in English Translation (3)**

*Prerequisite:* ENG 416 or consent of instructor. Chekhov's six major plays. Paired with RUSS 811. Students who have completed RUSS 611 may not take RUSS 811 later for credit.

**612 Gothic and the Russian Novel in English (3)**

*Prerequisite:* ENG 416 or equivalent. Late 18th and early 19th century English Gothic novels. Relation-

ship to selected 19th and 20th century Russian novels. (Also offered as WCL 612.)

**690 20th Century Russian Literary Theory (3)**

*Prerequisite:* RUSS 511 or consent of instructor. The development of literary theory in Russia: formalism, structuralism, Marxism, Soviet realism, semiotics. The writings of Bakhtin and the Bakhtin Circle. Paired with RUSS 890. Students who have completed RUSS 690 may not take RUSS 890 for credit.

**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.

**Graduate Courses**

*Prerequisite for each graduate course in Russian: admission to Russian program or consent of instructor.*

**700 Seminar in Research Methods (1)**

Problems and methods in research, bibliography, and criticism.

**745 History of the Russian Language (3)**

Historic development of the language. Phonetics, morphology, and syntax of Old Russian as compared to its modern structure.

**800 Contemporary Russian Literature in English (3)**

For course description, see RUSS 600. Paired with RUSS 600. Students who have completed RUSS 800 may not take RUSS 600 for credit.

**810 Dostoevsky in English Translation (3)**

For course description, see RUSS 610. Paired with RUSS 610. Students who have completed RUSS 810 may not take RUSS 610 for credit.

**811 Chekhov's Plays in English Translation (3)**

*Prerequisites:* ENG 114 or consent of instructor. For course description, see RUSS 611. Paired with RUSS 611. Students who have completed RUSS 811 may not take RUSS 611 for credit.

**820 Seminar: 19th Century Literature (3)**

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

**830 Seminar: Russian Modernism (3)**

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

**880 Seminar: Special Topics (3)**

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

**890 20th Century Russian Literary Theory (3)**

*Prerequisite:* RUSS 511 or consent of instructor. For course description, see RUSS 690. Paired with RUSS 690. Students who have completed RUSS 890 may not take RUSS 690 for credit.

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

Study is planned, developed, and completed under the direction of a member of the department faculty. Open only to graduate students who have dem-

onstrated ability to do independent work. Enrollment by petition.

**SANSKRIT****Undergraduate Course****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****101 First Year Experience in Science and Engineering (1)**

*Must be taken concurrently with A U 100.* Introduction to critical scientific writing and reading skills, methods of acquiring knowledge in the science disciplines, and science and engineering baccalaureate degrees and associated career opportunities.

**115 Science Concepts - Chemistry I (1)**

*Must be taken concurrently with 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 AU 235 and Science Concepts courses.

**140 Essential Concepts of Physics and Chemistry (3)**

*Prerequisite:* satisfactory completion of ELM requirement. Fundamental concepts of physics and chemistry, from motion, forces, and energy on to atomic structure, molecules, bonding, and chemical reactions. Basic organic and biochemistry.

**215 Science Concepts - Chemistry II (1)**

*Must be taken concurrently with 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 AU 235 and Science Concepts courses.

**230 Science Concepts - Biology I (1)**

*Must be taken concurrently with 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 AU 235 and Science Concepts courses.

**238 Science Concepts: Biology II (1)**

*Must be taken concurrently with BIOL 240.* Student-centered discussion and problem solving section. Designed to promote student understanding of key concepts and enhance student success in the concurrent introductory biology course. A total of 4 units of SCI 235 through SCI 242 credit allowed toward the baccalaureate degree.

**240 Science Concepts - Biology II (1)**

*Must be taken concurrently with 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 AU 235 and Science Concepts courses.

**242 Science Concepts: Chemistry III (1)**

*Must be taken concurrently with CHEM 216.* Student-centered discussion and problem solving section. Designed to promote student understanding of key concepts and enhance student success in the concurrent introductory chemistry course. A total of 4 units of SCI 235 through SCI 242 credit allowed toward the baccalaureate degree.

**510 Search for Solutions (3)**

*Prerequisites: 18 units in science and consent of instructor.* The interrelationships among science, technology, and society. Students work in teams to research a significant science-based phenomenon, its effects on society, and how these effects could be mitigated.

**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.

**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.

**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.

**SECONDARY EDUCATION***Undergraduate Courses***610 Early Field Experience in Secondary Schools (2)**

Provides 45 hours of field experience in middle schools and high schools for students considering secondary school teaching as a career choice. Students also meet in a seminar for fifteen (15) hours. Required prerequisite for Single Subject Credential program.

**615 Constitutional Concepts for Future Teachers (2)**

*Prerequisite: upper division standing or consent of instructor.* Major concepts include separation/sharing of powers; popular sovereignty; limits on govern-

ment. Meets U.S. constitutional requirement for basic teaching credential.

**621 Teaching Reading in Every Class (3)**

*Prerequisite: teaching experience.* Teaching reading in all subject fields in high school. Bilingual and remedial language problems.

**631 Selected Topics in Secondary Education (3-6) F,S**

*Must be taken concurrently with S ED 651. Topic to be specified in Class Schedule.* May be repeated for a total of 6 units when topics vary.

**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.

**660 Student Teaching—Single Subject (1-12) F,S**

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.

**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.

**699 Special Study (1-3) F,S**

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***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.* For course description, see E ED 701. (May not be repeated under alternate prefix.)

**710 Seminar in Secondary Education (4) F,S**

*Prerequisite: must be taken concurrently with S ED 660.* Professional field problems in secondary teaching and curriculum development.

**720 Reading in the Secondary School (3)**

Reading problems of adolescents; developing remedial techniques and technical vocabulary; motivating the hard-to-reach adolescent; problems of cultural diversity.

**722 Teaching Language and Literacy in Content Fields (3) F,S**

*Prerequisite: at least one previous course in reading or consent of instructor.* Evaluation of methods of teaching reading in high school subjects.

**723 Inservice Leadership in Reading (3)**

*Prerequisites: consent of adviser and instructor.* For course description, see E ED 723.

**751 Seminar in Secondary Education (5)**

*Prerequisites: B.A. and application to Secondary Education Department. Must be taken concurrently with S ED 640.* Integrates psychological, sociological, and philosophical foundations of education with involvement in field experiences. Organization of school systems, planning and implementation of effective classroom environments, development of teaching styles.

**752 Advanced Seminar in Secondary Education (4)**

*Prerequisite: S ED 751. Must be taken concurrently with S ED 660.* Foundations of education. Development of teaching styles; organization of school systems; planning classroom environments.

**752 Advanced Seminar in Secondary Education (3)**

*Prerequisite: program matriculation. Must be taken concurrently with S ED 660.* Foundations of education. Development of teaching styles; organization of school systems; planning classroom environments.

**753 Urban Secondary Education (3)**

*Prerequisite: consent of instructor.* Problems of educating multi-cultural urban youth: attitudes of minority students, parents, and community members toward secondary schools; development of appropriate teaching strategies.

**759 Curriculum and Instruction in the Secondary School (3)**

Lesson planning, unit construction, evaluation techniques; examines the relationship of individual subjects to the total curriculum.

**760 Advanced Field Practicum (3-7) F,S**

*Prerequisite: consent of instructor. Must be taken concurrently with S ED 710.* Teaching strategies and implementation of systems in secondary schools under the guidance of a university supervisor.

**761 School Mathematics: Problem Solving (3)**

*Prerequisite: consent of instructor.* For course description, see E ED 761. May not be repeated under alternate prefix.

**778 Early Adolescent Development (4)**

*Prerequisite: admission to the middle level emphasis program. Must be taken concurrently with S ED 780, S ED 781.* Theoretical foundations of adolescent development (ages 10-15). Application to critical issues in adolescence--cognitive, biological, socio-emotional domains. Implications to middle level education in diverse culture, linguistic, and ethnic classroom.

**779 Observation/Participation (2)**

*Prerequisite: admission to the middle level emphasis program. Must be taken concurrently with S ED 778, S ED 780, S ED 790.* Observation and participation in middle schools under the guidance of a university supervisor. Individual conferences/group meetings for analysis of field experiences.



**780 Curriculum and Instruction in Middle Level Education (4)**

*Prerequisite:* admission to middle level emphasis program. Must be taken concurrently with S ED 778, S ED 779, S ED 781. Orientation to middle level education. Interdisciplinary instruction; advisory; scheduling the school; team teaching; cooperative learning; cross-age grouping; departmentalized/core curriculum; adapting curriculum to needs of culturally/linguistically diverse population.

**781 Teaching Reading/Language Arts in Middle Level (3)**

*Prerequisite:* admission to middle level emphasis program. Must be taken concurrently with S ED 782, S ED 785, S ED 784. Development of reading/language arts skills in middle school; reading problems of early adolescents; second language learners; writing across curriculum; effective strategies for diverse learners.

**782 Student Teaching in Middle Level Schools (5)**

*Prerequisites:* S ED 778, S ED 779, and S ED 780. Must be taken concurrently with S ED 781 and S ED 783. Departmentalized and core teaching; sole responsibility; team teaching; and advisory assignments. CR/NC grading only.

**783 Advanced Seminar in Teaching in Middle Level Schools (2)**

*Prerequisite:* SPED 703, S ED 785, S ED 778, S ED 780. Must be taken concurrently with S ED 781 and 782. Adapting instruction to the learning patterns of each student; grouping patterns; evaluation methods; working with parents and community; strategies effective in diverse classrooms.

**784 Skills for the Teacher/Adviser (1)**

*Prerequisite:* S ED 785, S ED 778, S ED 780, S ED 781. Must be taken concurrently with S ED 782, S ED 783. Skills needed in an advisory capacity with diverse learners--middle school level. Collaboration with parents and school personnel. Curriculum-based and informal advisement. Differences between adviser and counselor roles.

**785 Teaching Culturally and Linguistically Diverse Learners (2-3)**

Preparation of teachers to work effectively with students from diverse cultural, ethnic, religious, and language groups. Varied classroom activities explore differences in values, priorities, world views, and expectations about schooling.

**790 First and Second Language Development in Secondary Schools (3)**

First and second language acquisition research and theories. Implications for responsive secondary school program design.

**796 Analyzing Cases of Mathematics 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 be-

liefs. (Also offered as E ED 796. May not be repeated under alternate prefix.)

**800 Teaching the Adolescent (3) F,S**

*Prerequisite:* student teaching or equivalent experience or consent of instructor. Teacher-student relationships and social groupings in school cultures.

**807 Leadership Development in Mathematics Education (3)**

*Prerequisite:* consent of instructor. For course description, see E ED 807. May not be repeated under alternate prefix.

**811 The Implications of Social and Technological Change for Teaching (3)**

Impact of social and technological change on adolescents, development of curriculum and instruction responsive to this impact.

**850 Advanced Seminar in Curriculum and Instruction in the Secondary School (3) F,S**

Theories of curriculum construction, program development for total school curriculum, teaching strategies, evaluation.

**856 Assessing Mathematical Thinking (3)**

*Prerequisite:* consent of instructor. For course description, see E ED 856. May not be repeated under alternate prefix.

**865 Seminar in Middle Level Education (3)**

*Prerequisite:* admission to middle school certificate program or consent of adviser and instructor. For course description, see E ED 865.

**866 The Early Adolescent in School (3)**

*Prerequisite:* admission to middle school certificate program or consent of instructor and adviser. For course description, see E ED 866.

**867 Curriculum of the Middle Level School (3)**

*Prerequisite:* admission to middle school certificate program or consent of instructor and adviser. For course description, see E ED 867.

**895 Field Study (3) F,S**

Graduate Approved Program and Proposal for Culminating Experience Requirement forms must be approved by the Graduate Division before registration.

**898 Master's Thesis (3) F,S**

*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.

**899 Special Study (1-3) F,S**

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.

**SOCIAL SCIENCE***Undergraduate Courses***104 Introduction to World Affairs (3) [GE] F,S**

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. (Also offered as I R 104. May not be repeated under alternate prefix.)

**105 Individual, Society, and Culture: Their Interaction in America (3) [GE] F,S**

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?

**106 Capitalism, Socialism, and Democracy:****Introduction to Political Economy (3) [GE] F,S**

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. (Also offered as PLSI 106.)

**200 Development of American Institutions, Values, and Ideals (3) [US] F,S**

Development of American democracy from an interdisciplinary perspective. Emphasizes European and colonial origins, U.S. Constitution, Civil War, industrialization, populism, the Great Depression, and the World Wars. Satisfies the U.S. history requirement. (Page reference for requirement can be found in the Index.)

**300 Social Sciences Core I (3) [GE]**

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.

**301 Social Sciences Core II (3) [GE]**

*Prerequisite:* S S 300. 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.

**343 Women and Work (3) [GE]**

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. (Also offered as ANTH and LABR 343.)

**345 Women and the Law (3) [GE]**

*Prerequisite:* ENG 114 or equivalent For course description, see WOMS 534.

**350 Homosexuality as a Social Issue (3)**

Examines the development of the movement for homosexual rights and identity from multiple perspectives: historical, legal, political, religious, economic, medico-psychological and sociological. Focuses on contemporary issues and encourages student research and community involvement. (Also offered as HMSX 355.)

**360 The Individual in Modern Society (3) F,S**

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.

**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.

**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.

**403 Critical Social Theory and Postmodern Society (3)**

*Prerequisite: upper division standing or consent of instructor.* As contemporary society changes, so does social theory: how postmodern society has challenged social theory and provoked dramatic new understanding of culture, media. (Also offered as CST 403. May not be repeated under alternate prefix.)

**410 Perspectives on American Culture (3) [GE]**

S

For course description, see AMST 300.

**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. (Also offered as HMSX 421.)

**429 The Sixties (3)**

*Prerequisite: upper division standing.* Analysis of the changes of a decade critical for understanding the contemporary world with emphasis on international affairs, cultural change, and intellectual development. (Also offered as HIST 429. May not be repeated under alternate prefix.)

**455 Sex, Power, and Politics (3)**

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, paedophilia, pornography, sodomy, abortion, etc. (Also offered as HMSX 455.)

**469 American Childhoods: Past and Present (3) [GE]**

For course description, see HIST 469.

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

*Prerequisites: HIST 214 or equivalent; upper division standing or consent of instructor.* For course description, see HIST 501. (Also offered as ANTH/RAZA 501.)

**510 Socio-cultural Change: An Interdisciplinary Analysis (3)**

Explores the "cultural turn" in the social sciences as studies of identity, language, media, cognitive frames, symbolic understandings etc., have become pivotal for understanding social change. Socio-economic and socio-cultural analyses are contrasted in comprehending contemporary changes.

**520 Modernization and Third World Countries (4) [GE]**

*Prerequisites: ENG 214 and upper division standing.* Problems and processes of bringing Western technology and market-based industrialization to Third World countries. Explores basic tensions: markets/planning, rural/urban, basic needs/environment, self-sufficiency/foreign reliance, equal/unequal distribution. (Also offered as I R/PLSI 520.)

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

*Prerequisite: upper division standing.* For course description, see LABR 525. (Also offered as ANTH 525. May not be repeated under alternate prefix.)

**540 The Rich and the Poor Nations (4) [GE]**

For description, see I R 540.

**544 Women in the World (4) [GE]**

For course description, see I R 544.

**550 Social Change in Modern Latin America (3) [GE]**

For course description, see HIST 550.

**600 Seminar in Method and Interdisciplinary Analysis (3) F,S**

*Prerequisite: senior standing.* Methods and frames of reference from several social sciences for the purpose of defining, investigating, and understanding a single topic or problem. Open only to social science (interdisciplinary studies) majors.

**650 Curriculum and Instruction in Social Science (3) F,S**

*Prerequisite: senior standing.* Analysis of current social science/history curriculum at the secondary school level. Systematic study of established and experimental methods of instruction; selection and preparation of teaching materials; coordination of social studies with other subject areas. Classwork, 2 units; activity, 1 unit. (Also offered as HIST 650.)

**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.

**681 Community Service Learning in the Schools (3)**

*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. (Also offered as HIST 681.)

**697 Senior Project Seminar (1)**

*Prerequisites: S S 600 and senior standing; must be taken concurrently with S S 698.* Seminar meetings of students taking S S 698. Designed to facilitate completion of senior project in social science.

**698 Senior Project in Social Science (2) F,S**

*Prerequisites: S S 600 and senior standing; must be taken concurrently with S S 697.* Development of a senior project subject to instructor approval. Projects may take a variety of forms, but each must demonstrate an interdisciplinary analysis of the particular topic.

**699 Special Study (1-3) F,S**

*Prerequisites: written consent of instructor, major adviser, and department chair.* Supervised study of a particular problem selected by the student.

**Graduate Courses****710 Interdisciplinarity in the Social Sciences (3)**

Seminar for beginning M.A. students. Exploration of models of interdisciplinary analysis, then development of research interests, designs and methods.

**720 Seminar in Modernization (3)**

*Topic to be specified in Class Schedule.* May be repeated 3 times when topics vary.

**736 Third World Modernization (3)**

*Prerequisite: graduate status.* Major dilemmas of the modernization situation in the third world: market vs. planning, rural vs. urban, basic needs vs. the environment, self-sufficiency vs. foreign reliance, equal vs. unequal distribution, etc. (Also offered as I R 736.)

**800 Seminar in Interdisciplinary Applications (3)**

*Prerequisites: S S 710 and filing of thesis topic form.* Seminar in evaluation and development of interdisciplinary thesis topics. Special attention is paid to the problems posed by cross- and trans-disciplinary theory and research.

**897 Individual Research (3) F,S**

*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.

**898 Master's Thesis (3) F,S**

*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.

**899 Special Study (3)**

F,S

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.

**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.

**301 U.S. Social Welfare II: Problems, Policies, and Programs (3)**

*Prerequisite:* 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.

**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.

**350 Child Welfare (3) [GE]**

*Prerequisite:* upper division standing. Child welfare as a specialized field of social welfare. Service delivery systems; the child welfare worker's job.

**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.

**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.

**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.

**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.

**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.

**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.

**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. (Also offered as URBS 456. May not be repeated under alternate prefix.)

**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.

**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.

**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.

**504 Seminar on Field Experience II (2)**

*Prerequisites:* all junior year Social Work courses, satisfactory completion of S W 502 and 503. Must be taken concurrently with S W 505. Analysis of field experiences utilizing behavioral concepts.

**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.

**640 Family Mediation (3)**

Typical stages of mediation, during which the mediator practices basic advanced techniques, are described. Mediation of conflicts that occur throughout the family life cycle are role-played. Paired with SW 840. Students who have completed SW 640 may not take SW 840 for credit.

**655 Disability Rights and Social Work (3)**

*Elective course for the Bachelor of Social Work and open to other students interested in disability issues.* Examines ableism in U.S. society, its development, and the philosophy of disability as expressed in social welfare agencies and schools of social work. Exercises will be done at the TopClass Site, a computer interactive program.

**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. (Also offered as PLSI/URBS 660.)

**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***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.

**701 Social Policy Analysis (3)**

*Prerequisite:* S W 700. Models and frameworks to analyze social policy. New policy/program directions and action plans.

**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.

**711 The Life Cycle (3)**

*Prerequisite:* S W 770. Phases and processes of human development in a life-span. Physical, cognitive, emotional, and social-cultural elements shaping patterns of behavior.

**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.

**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.

**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.

**741 Graduate Fieldwork Seminar (2)**

*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.

**760 Social Work and the Law (3)**

Social change through the judicial, legislative, and executive processes.

**770 Ethnic and Cultural Concept and Principles I (3)**

Framework for ethnic/cultural variables that intervene in social work practice with ethnic minority clients and communities.

**771 Ethnic and Cultural Concepts and Principles II (3)**

*Prerequisites: S W 730 and 770 or consent of instructor.* Traditional social work intervention methods for Third World people. New and relevant methods for intervening in the problems of Third World clients and communities.

**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.

**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.

**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.

**811 Seminar: Organizations, Institutions, and Communities (3)**

*Prerequisite: S W 710.* Organizational theories that relate to social service bureaucracies in public and private sectors.

**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.

**830 Seminar: Social Casework (3)**

*Prerequisite: S W 730.* Methods of helping individuals cope with personal and social problems.

**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.

**832 Seminar: Social Group Work (3)**

*Prerequisite: S W 730.* Small group behavior; social work interventions required for improving relationships within groups.

**833 Seminar: Advanced Social Group Work (3)**

*Prerequisite: S W 832.* Analyses of social and psychological problems in client groups. Theories of change and their utilization in the social group work process.

**835 Seminar: Social Development Methods I (3)**

*Prerequisite: S W 730.* Nature of communities, community change dynamics, patterns of decision-making, and community power analysis. Social planning and change strategies in working with disenfranchised communities.

**836 Seminar: Social Development Methods II (3)**

*Prerequisite: S W 835.* Social change strategies including citizen action organizing. Client participation and program development in agencies, community development corporations.

**837 Family Social Work (3)**

The urban family: various types of families; life cycle; assessment of dysfunction; intervention strategies; and social worker's role in the change process.

**840 Family Mediation (3)**

For course description, see S W 640. Paired with S W 640. Students who have completed S W 840 may not take S W 640 for credit.

**841 Social Work and the Lesbian/Gay Client (2)**

Working with gay and lesbian clients in social service settings. Issues which urban lesbians and gay men face.

**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. (Also offered as GRN 730.)

**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.

**844 Social Work Values and Ethics (3)**

Relationship of social work values and ethics to development of social policies and social work practice.

**845 Social Work and Health Care (2)**

Framework for social work practice in health care; client's experience of specific illnesses and conditions, concepts of coping, loss, adaptation, and developmental change.

**846 Practice Methods in Substance Abuse Treatment (3)**

Overview of practice models/theoretical perspectives--study of alcohol, other drug (AOD) abuse; general knowledge of addiction, diverse cultural perspectives using a family system model; prevention, intervention, and various treatment approaches. Emphasis on social workers in the development, maintenance, and conduct of governmental policies/bureaucracies.

**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.

**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.

**862 Child Welfare Policy (3)**

Issues in publicly funded child welfare services. Preventive, supportive, and substitute programs for children and families; changing urban family roles, cultural-racial-class factors, affective development, and children's rights.

**864 Human Services Administration II (3)**

*Prerequisite: S W 880.* Management theory applied to public human service agencies.

**880 Computer Technology and Human Services (2)**

*Prerequisite: completion of or concurrent enrollment in S W 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.

**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.

**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.

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

An intensive study of a particular problem 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***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.

**200 Changing Cities (3) [GE]**

For course description, see URBS 200. May not be repeated under alternate prefix.

**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.)

*Sociology courses numbered 300 and above require upper division standing and completion of GE Segment I requirements. SOC 370 and 392 require passing of JEPET or concurrent enrollment in ENG 414.*

### 300 Sociological Analysis (4)

Application of sociological perspectives and methodologies to understanding social organization and behavior.

### 340 Social Psychology (4)

The individual and society. Role of communication, language, role-taking, and the self-concept in explaining group structure and behavior.

### 362 The Social Construction of Deviance and Conformity (4)

Social processes of rule making, enforcing, and breaking; theoretical and methodological problems of conceptualizing and analyzing values, rules, power, social judgements, and punishment.

### 370 Theories of Society (4)

*Prerequisites: SOC 105, 300, and critical thinking requirement, or consent of instructor.* Fundamental assumptions underlying classical sociological perspectives as well as in works of contemporary social theorists.

### 375 Selected Issues in Sociology (1-4)

*Topic to be specified in Class Schedule.* Open to all upper division students. May be repeated when topics vary.

### 392 Sociological Research—Methods and Techniques I (4)

*Prerequisites: ENG 214, SOC 300, critical thinking requirement, or consent of instructor.* Nature of scientific research and research design; relationship of research to sociological theory. Classwork, 3 units; laboratory, 1 unit.

### 393 Sociological Research—Methods and Techniques II (4)

*Prerequisite: SOC 392 or consent of instructor.* Techniques of measuring, tabulating, analyzing, and interpreting statistical data. Classwork, 3 units; laboratory, 1 unit.

### 394 Advanced Research Methods (4)

*Prerequisites: SOC 392, SOC 393 or equivalent. Topic to be specified in Class Schedule.* May be repeated for a total of 8 units when topics vary.

### 451 Criminological Theory (4) [GE]

Social, economic, and political context in which criminological theories (past and present) emerged and how they are reflected in legal practices.

### 452 Juvenile Justice (4)

Analysis of "delinquency", emergence and administration of juvenile law and analysis of social organizations for youthful offenders. Classwork, 3 units; fieldwork, 1 unit. (Also offered as C J 470.)

### 454 White Collar Crime (4)

Examination of white collar crime such as price-fixing, mergers and acquisitions, unsafe products, political bribery and corruption, embezzlement and computer crime. Punishment of white collar criminals.

### 455 Punishment and Social Control (4) [GE]

Contemporary and historical methods of punishment and control are examined as reflections of broader trends in society.

### 457 Sociology of Law (4)

Examination of legal institutions, developing knowledge and understanding of the social nature of law, the operation of existing institutions and their relation to social conditions and process.

### 459 Criminal Law and Social Process (4) [GE]

Administration of criminal law including arrest, prosecution, trial, and sentencing. Organization of police, police culture, the court as a special bureaucracy with separate functionaries.

### 461 Ethnic Relations: International Comparisons (4) [GE]

Sociological factors related to ethnic identity, nationalism, and conflict in selected multi-ethnic societies worldwide. Ethnicity in politics, religion, family, education, and work.

### 464 Families and Society (4) [GE]

Family variations in the U.S. and the world: historical antecedents and social influences; changing structure of the family, problems and emerging trends.

### 465 Girlhood and Boyhood: Sociological Perspectives (4)

*Prerequisite: ENG 214 or equivalent.* Explores girlhood and boyhood in the United States as sites of social inequalities, construction, and change. Emphasis on race, class, sexual, gender, physical ability, and other differences and inequalities. Texts include creative work and analysis by young people.

### 466 Society and Education (4)

*Prerequisite: ENG 214.* Sociological perspectives on how schools reflect the values, interests, and conflicts of the larger social structure. Challenges to public education in the U.S., how these challenges are being met.

### 468 Social Aspects of Human Sexuality (4) [GE]

Sexuality as human social behavior. Social, cultural and ethnic causes and consequences of ways of behaving sexually.

### 469 Gender and Society (4) [GE]

Sex roles in society. Origin, socialization, and demands of conformity. Restrictions and encouragements for breaking with conventional sex roles.

### 471 Societal Change and Development (4) [GE]

Functions and components of social change; work of selected sociologists dealing with patterns of social change.

### 476 Medical Sociology (4) [GE]

Sociology of health and illness; organization of medical care; therapeutic interaction; medico-social problems; innovation in health care.

### 477 Environmental Sociology (4) [GE]

*Prerequisite: ENG 214.* 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.

### 478 Religion and Society (4) [GE]

*Prerequisite: ENG 214.* Religion/morality as a system of community-held beliefs and rituals oriented toward a sacred realm; as a social institution with effects on social processes such as order, conflict, and change.

### 480 City in a Global Society (4) [GE]

*Prerequisite: ENG 214.* Urban life and settings in U.S. and internationally. Analysis of impact of the global context. Economic, ethnic, gender, cultural, political, and technological changes. (Also offered as URBS 470.)

### 482 Global Immigration and Immigrants (4) [GE]

*Prerequisite: ENG 214.* 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.

### 483 Global Sociology (4) [GE]

Global processes and their impact on different societies and individuals. Global theory; social problems such as poverty, hunger, racism, sexism, global warming, labor exploitation.

### 484 Population and Social Dynamics (4)

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.

### 494 Sociological Research III: Special Projects (2-4)

*Prerequisites: SOC 392 and 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.

### 500 Senior Seminar (3)

*Prerequisites: SOC 300, 370, and 392, or consent of instructor. Topic to be specified in Class Schedule.* May be repeated for a total of 6 units when topics vary.

### 501 Internship: Applied Sociology (2)

*Prerequisite: SOC 370, 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.

### 502 Internship Seminar: Applied Sociology (1)

*Prerequisites: SOC 370 and 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.

### 575 Sociology in the Bay Area (1-2)

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

**685 Projects in the Teaching of Sociology (1-4)**

*Prerequisites:* 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.

**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 Course****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.

**101 First Semester Spanish (5) [GE]**

Introduction to understanding, speaking, reading, and writing Spanish; Spanish and Latin American culture. (Page reference for Department of Foreign Language statement can be found in the Index.)

**102 Second Semester Spanish (5) [GE]**

*Prerequisite:* SPAN 101 or equivalent. Understanding, speaking, reading, and writing Spanish; Spanish and Latin American culture.

**160 Spanish for Nursing (3)**

Basic conversational skills needed to interact with Spanish-speaking patients: the emergency room, pediatrics, gynecology, cardiology, hospital care, and sexually-transmitted diseases. No previous Spanish is required.

**161 Spanish for Nursing II (3)**

*Prerequisite:* SPAN 101 or SPAN 160 or equivalent. Intermediate Spanish conversational skills for nurses. Topics include: emergency room, hospital care, cardiology, maternity, venereal diseases, pediatrics, lab work, x-rays.

**205 Spanish Grammar Review (3) [GE]**

*Prerequisite:* SPAN 102 or consent of instructor. May be taken concurrently with SPAN 206. Basic elements of Spanish grammar.

**206 Spanish Conversation (3) [GE]**

*Prerequisite:* SPAN 102 or consent of instructor. May be taken concurrently with SPAN 205. The development of oral skills with emphasis on pronunciation and practical vocabulary used in travel, the home, and work.

**216 Intermediate Conversation and Reading (3) [GE]**

*Prerequisite:* SPAN 206 or consent of instructor. May be taken concurrently with SPAN 215. Development of oral skills.

**301 Advanced Grammar (3) [GE]**

*Prerequisite:* SPAN 205 or equivalent. Problematic aspects of Spanish grammar; comparative analysis of Spanish and English.

**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.

**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.

**325 Applied Spanish Linguistics: Phonetics and Phonemics (3) [GE]**

*Prerequisites:* SPAN 216 and 301 or equivalent. Application of modern descriptive linguistics to the phonetic and phonemic systems. Correlation between the phonemic and graphemic systems.

**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.

**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.

**401 Culture and Civilization of Spain (3) [GE]**

*Prerequisites:* SPAN 305 and 306 or equivalent. Background for Spanish literature.

**405 Culture and Civilization of Spanish America (3) [GE]**

*Prerequisites:* SPAN 305 and 306 or equivalent. Background for Spanish American literature.

**500 Introduction to Literary Criticism (3) [GE]**

*Prerequisites:* SPAN 305 and 306 or equivalent. Techniques in literary interpretation using Spanish prose and poetry.

**521 Spanish Medieval, Renaissance, and Baroque Literature (3) [GE]**

*Prerequisite:* SPAN 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**523 18th and 19th Century Spanish Literature (3) [GE]**

*Prerequisite:* SPAN 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**525 20th Century Spanish Literature (3) [GE]**

*Prerequisite:* SPAN 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**541 Spanish American Literature: Discovery to Early Romanticism (3) [GE]**

*Prerequisite:* SPAN 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**543 Spanish American Literature: Romanticism to Modernism (3) [GE]**

*Prerequisite:* SPAN 500 or equivalent. Topic to be specified in Class Schedule. May be repeated when topics vary.

**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.

**562 Cervantes: The Quijote (3) [GE]**

*Prerequisite:* SPAN 500 or equivalent. Reading and analysis of Don Quijote.

**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.

**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.

**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.

**Graduate Courses**

*Prerequisite for each graduate course in Spanish:* admission to Spanish program or consent of instructor.

**745 Seminar in the Structure and Development of the Spanish Language (3)**

Phonological, morphological, and syntactical development from classical Latin to modern Spanish.

**821 Seminar in Spanish Literary Genres (3)**

Topic to be specified in Class Schedule. May be repeated for a total of 9 units when genres vary.

**831 Seminar in Literary Movements or Periods (3)**

Topic to be specified in Class Schedule. May be repeated when movements or periods vary.

**831 Writers from El Rio de la Plata (3)**

Selected masterpieces of outstanding writers from el Rio de la Plata: different literary movements and genres.

**880 Seminar in Individual Authors or Works (3)**

Topic to be specified in Class Schedule. May be repeated when authors or works vary.

**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***330 Introduction to Disability (3) [GE]**

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.

**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.

**601 Observation and Participation in Special Education (1) F,S**

*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.

**633 Exploring Visual Impairment: Challenges and Opportunities (3) [GE]**

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 733.)

**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.)

**662 Education of Deaf/Hard of Hearing Children (3) [GE]**

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.

**688 American Sign Language I (3) [GE]**

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.

**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.

**690 American Sign Language III (3)**

*Prerequisites:* SPED 688 and 689 or consent of instructor. American Sign Language: complex aspects of cultural awareness, grammatical features, vocabulary, and conversational skills.

**691 Deaf Community Culture (3) F**

Examination of socio-cultural, linguistic, audiological, and political elements that determine the character of the deaf community and its relationship to/with the majority group.

*Graduate Courses***702 Professional, Legal, and Ethical Practices: Opportunities for Students with Disabilities (3)**

Laws, practices, safeguards and regulations, ethics and values of professional educators. Research on learning assessment, curriculum, and instruction.

**703 Exceptional Learners (3)**

Orientation to exceptionality and special education policies and practices. Laws and procedural safeguards, assessment, curriculum, and instructional practices.

**709 Advanced Differential Diagnosis and Assessment (3)**

*Prerequisite:* SPED 702, 772, 775. Formal and informal assessment, diagnosis and educational interventions. Roles and responsibilities of resource specialists, educational therapists, and teachers.

**710 Interpreting Cognitive Assessments (1)**

*Prerequisites:* SPED 702, 709, 770, 772, 775, and 803. *Must be taken concurrently with SPED 831.* Exploration of the administration, scoring, and interpretation of commonly used cognitive assessments. Emphasis on developing skills in the integration of cognitive assessments and of information when formulating educational recommendations and remedial programs for individuals.

**711 Student Support Seminar (2)**

*Prerequisites:* admission to department program and by advisement. Pre-practica and pre-internship coordination for future site placements and review students' programmatic needs.

**715 Utilizing Computers with Special Learners (3)**

Utilizing computers, software, and adaptive devices with students with disabilities. Access to curriculum in the regular classroom. Effective strategies for educators. Specialist credential requirement.

**716 Technology in Special Education (3)**

*Prerequisite:* ITEC 712 or E ED 683 or prior computer experience. Use of adaptive devices for computer access to learners with disabilities. Use of software and hardware. Technology to facilitate integration of students with disabilities into the regular classroom.

**721 Student Teaching Workshop: Visual Impairment/Orientation and Mobility (1)**

*Prerequisites:* admission to program and consent of program/instructor. *Must be taken concurrently with SPED 730.* For education specialist credential for visual impairment or clinical rehabilitative services credential in orientation and mobility: guiding and evaluating experiences of students at placement site. Development of preliminary induction plan. May be repeated once for another credential.

**722 Student Teaching Workshop: Deaf/Hard of Hearing (1)**

*Prerequisite:* consent of program/instructor. *Must be taken concurrently with SPED 730.* Reviews planning, guiding, and evaluating experiences of students who are deaf or hard of hearing. Development of preliminary induction plan.

**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.

**724 Student Teaching Workshop: Physical and Health Impairments (1)**

*Prerequisite:* consent of program/instructor. *Must be taken concurrently with SPED 730.* Reviews planning, guiding, and evaluating experiences of students who are physical and health impaired. Development of preliminary induction plan.

**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.

**727 Student Teaching Workshop: Mild/Moderate Disabilities (1)**

*Prerequisite:* consent of program/instructor. *Must be taken concurrently with SPED 730.* Reviews planning, guiding, and evaluating experiences of students with mild/moderate disabilities. Development of preliminary induction plan.

**728 Student Teaching Workshop: Moderate/Severe Disabilities (1)**

*Prerequisite:* consent of program/instructor. *Must be taken concurrently with SPED 730.* Reviews planning, guiding, and evaluating experiences of students with moderate/severe disabilities. Development of preliminary induction plan.

**729 Student Teaching Workshop: Early Childhood Special Education (1)**

*Prerequisite:* consent of program/instructor. *Must be taken concurrently with SPED 730.* Reviews plan-

ning, guiding, and evaluating experiences of students eligible for early childhood special education services. Development of a preliminary induction plan.

### 730 Student Teaching: Special Education (3,6,9,11)

*Prerequisite:* completion of advanced curriculum or consent of adviser. Must be taken concurrently with special education workshop in area of emphasis. Student teaching practicum/field experience, placement in special education setting or classroom. Units upon advisement. May be repeated once for a total of 12 units.

### 735 Technology for Visually Impaired Students (2)

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.

### 736 Biomedical and Developmental Aspects of Neonatal/Infant Care (3)

*Prerequisite:* SPED 777. Treatment and care of high risk and disabled infants. Intervention in the intensive care nursery, transitioning out of the hospital setting, and the relationship of neonatal problems to later development.

### 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.

### 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.

### 740 Induction Plan Development (1)

*Prerequisite:* completion of Preliminary Level I Education Specialist Credential. Development, implementation, and evaluation of the induction plan in mild/moderate, low incidence areas, and early childhood special education. Minimum 2 units required; may be repeated for a total of 5 units.

### 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.

### 744 Integrating Students with Disabilities in Elementary/Secondary Classroom (3)

*Prerequisite:* admission to Single Subject or Multiple Subjects Credential program, or consent of instructor. Special education law and policies, pre-referral and referral processes, and instructional planning and

modification. Skills related to effective communication and collaboration among general and special education personnel and parents.

### 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.

### 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.

### 747 Physical Disabilities—Implications and Management (3)

*Prerequisite:* admission to program or consent of instructor. Medical information and implications for instruction and management for people with physical disabilities. Management of specialized equipment, feeding, positioning, and emergency handling procedures.

### 748 Preparation of Pupils for Optimal Independent Living (3)

*Prerequisite:* consent of adviser. Assessment of needs of individuals with physical disabilities for optimal independent functioning in home, school, and community; instructional programs for teaching independent living skills and use of leisure time; rehabilitation and employment opportunities.

### 749 Medical, Educational, and Rehabilitative Implications of Visual Impairment (4)

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.

### 750 Assessment and Instruction for Learners with Visual Impairments I (3)

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.

### 751 Assessment and Instruction for Learners with Visual Impairments II (3)

*Prerequisite:* SPED 750 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.

### 752 Issues in Visual Impairment (3)

Psychosocial and vocational implications of visual impairment. Instructional methods and strategies for transition. Local, state, and national legislation.

### 753 Living Skills Assessment and Instruction for Learners with Visual Impairments (3)

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.

### 754 Basic Communication Skills for Learners with Visual Impairments (3)

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.

### 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.

### 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.

### 758 Advanced Communication Skills for Learners with Visual Impairments (2)

*Prerequisite:* SPED 754 or consent of instructor. Advanced formats of Braille codes: literary, mathematical, computer, foreign language, and music. Use of slate and stylus.

### 759 Orientation and Mobility/Rehabilitation for Blind Multiply Disabled (1)

Multiple disabilities and their impact on the development of orientation and mobility/daily living skills of adult learners with visual impairment. Modification of assessment and instruction appropriate to serving learners with multiple disabilities.

### 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.

### 763 Transition Planning for Secondary-aged Students with Disabilities (3)

Strategies to facilitate the transition to self-determined careers, post-secondary education, and community living for secondary-aged students with disabilities.

### 764 Signing Exact English I (3)

F

*Prerequisite:* consent of instructor. Develops beginning level receptive and expressive skills, including basic fingerspelling, in Signing Exact English.



**765 Signing Exact English II (3) S**

*Prerequisite:* SPED 763 or consent of instructor. Develops advanced level receptive and expressive skills, including fingerspelling, Signing Exact English. Receptive skills emphasized.

**766 Social Competence in the Autism Spectrum (1)**

Understanding peer socialization and play in the autism spectrum. Promotion of social competence and peer play experiences within natural contexts. Teaming and family participation. CR/NC grading only.

**767 Communicative Competence in the Autism Spectrum (1)**

Communication competence in the autism spectrum. Interrelationship of cognitive, social, affective, communicative development, and related treatment considerations. CR/NC grading only.

**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.

**771 Advanced Curriculum and Instruction for Middle Level (3)**

Lesson development and advanced assessment, curriculum, and instruction practices for the middle level. Techniques for providing responsive instructional plans for meeting the diverse needs of typically developing adolescents, those who are English language learners, and those with mild/moderate disabilities.

**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.

**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.

**774 Positive Behavior Support (3) F,S**

*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.

**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.

**777 Atypical Infant Development (3) F,S**

*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.

**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.

**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.

**781 Education of Students with Social and Emotional Troubles (3)**

*Prerequisites:* completion of Level I Education Specialist or admission to master's degree program. Education of children with serious emotional and/or behavior disorders including the autistic individual. Etiology, assessment, program evaluation, and community and policy issues.

**782 Language Assessment for Deaf and Hard of Hearing Children (3)**

*Must be taken concurrently with SPED 601.* Acquisition of receptive and expressive language. Basic sentence patterns and transformations. Standardized language tests, language sampling, and determining language priorities. Practicum for language assessment in a practical setting.

**783 Speech for Deaf and Hard of Hearing Children (3)**

*Prerequisite:* consent of instructor. Structure, function, and pathology of the speech mechanism. Motor and acoustic phonetics. Multisensory approach to the initiation, development, and improvement of speech-breath, voice, articulation, intonation, rhythm.

**784 Curriculum for Deaf and Hard of Hearing Children: Reading (2)**

*Prerequisite:* consent of instructor. Curriculum theory, content, instructional procedures and materials for teaching reading to hearing impaired children. Practical experience in classroom with hearing impaired children.

**785 Curriculum for Deaf and Hard of Hearing Children: Subject Areas (3)**

*Must be taken concurrently with SPED 601 (1 unit).* Curriculum theory, instructional procedures, and materials for teaching subject areas content to hearing impaired students. Developing thinking skills throughout curriculum. Practicum to implement strategies.

**786 Auditory Training and Amplification Systems for Deaf and Hard of Hearing (3)**

Auditory mechanism, physical and psychological aspects of sound, maintenance and use of amplification systems and hearing aids in the classroom. Auditory training techniques to optimize use of residual hearing. Audiometric testing.

**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, instruction, and contextual design for students with sensory and physical disabilities, including adaptations and equipment and specialized health care needs.

**788 Public Policy and Legal Rights of People with Disability (3)**

Legal protection of persons with disability in education and in society. Issues and policy development at national and state levels: integration, comprehensive services, parent rights, and advocacy programs.

**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.

**790 Language Intervention for Deaf and Hard of Hearing Children (3)**

*Must be taken concurrently with SPED 601.* Curriculum theory, content, and materials for teaching language to deaf and hard of hearing children. Language instruction and evaluation procedures. Practicum to implement strategies.

**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.

**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.

**801 Diversity in Special Education: Family Systems, Resources, and Culture (3) F,S**

*Prerequisite:* SPED 630 or consent of instructor. Social interaction of persons with disabilities within changing state and local demographics: culturally diverse populations, counseling techniques, instructional strategies, evaluation, and socialization within the context of family systems and the community.

**802 Administration and Supervision for Resource Specialists (3)**

*Prerequisite:* consent of instructor. The role of the resource teacher in mainstreaming mildly to moderately handicapped children, assessment, placement, instructional strategies.

**803 Communication, Diversity, and Exceptionality: Cultural and Communicative Competence (3)**

Issues in diversity and exceptionality in a communication context. Impact of disability, risk factors, and cultural contexts on acquisition of communicative competence.

**805 Internship: Vocational Education for Special Needs Students (3)**

Internship in educational setting where career/vocational education is delivered to students with special needs. Completion of a project at the site demonstrating the implementation of career/vocational principles.

**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.

**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.

**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.

**824 Advanced Behavioral and Instructional Support (3)**

*Prerequisites:* completion of SPED 740 and Level I education specialist credential, or permission of instructor. Assessment strategies and skills, communication skills, social skills, direct instruction, and effective research-based instructional methods useful with students with mild, moderate and severe cognitive and/or behavioral disabilities.

**831 Internship in Special Education (3 or 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. SPED 831 may be repeated for a total of 6 units.

**850 Issues in Vocational Special Education (3)**

Secondary vocational training programs for disabled youth. Transition and supported employment programs for this population.

**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.

**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.

**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.

**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.

**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****902 Seminar in Public Policy (3)**

*Prerequisite:* admission to doctoral program. Public policy issues that affect special education research, programming, and service delivery. Presentations of a public policy topic and policy analyses of selected court decisions related to special education.

**903 Research Seminar in Special Education: Program Design and Analysis (3)**

*Prerequisite:* admission to doctoral program. Making of inferences from 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.

**904 Small Sample and Observational Research Methods (3)**

*Prerequisite:* SPED 903. Research skills for study of low-incidence populations; qualitative methods in scientific research. Use of participant-observation and interrupted time series experimental designs. Methods for extending inference to conditions of low incidence disability in the population at-large.

**905 Internship in Special Education (3)**

*Prerequisite:* approval of adviser. Supervised internship for doctoral candidates: teacher education, research, administration, and public policy. May be repeated with emphasis in a different area.

**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.

**908 Directed Studies: Special Topics (1-3) F,S**

*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.

**909 Joint Doctoral Professional Seminar (2)**

*Prerequisite:* admission to joint doctoral program. Presentation and discussion of research of peers and faculty around joint research themes. Students meet with doctoral faculty from both campuses. Enrollment required years 1, 2, and 3 of program. May be repeated for a total of 12 units. CR/NC grading only.

**921 Seminar: Issues in Atypical Language Acquisition (3)**

*Prerequisite:* ENG 420 (SFSU), PSYCH 240D (UCB), or equivalent. Research issues in atypical developmental psycholinguistics. Sensory, cognitive, linguistic, and motor disabilities in children and adolescents across spoken, written, and signed modalities. Critical and analytic thinking applied to research on first and second language acquisition in atypical populations.

**922 Research Design and Methodologies: Atypical Developmental Psycholinguistics (3)**

*Prerequisites:* SPED 921 (SFSU) and PSYCH 240D (UCB), or equivalents. Research design and methodologies: ethnographic, naturalistic, observational, and experimental studies used in study of language acquisition in atypical populations; cultural and linguistic differences.

**923 Linguistic Basis of American Sign Language (ASL) and Sign Language Acquisition in Deaf Children (3)**

*Prerequisites:* ENG 420 (SFSU) and PSYCH 240D (UCB), or equivalents. Basic linguistic structures and rules of American Sign Language (ASL): phonology, morphology, syntax, pragmatics, and the non-manual component. Sign language acquisition in deaf children and adolescents.

**998 Doctoral Dissertation in Special Education (3)**

F,S

*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.

**SPEECH AND COMMUNICATION STUDIES***Undergraduate Courses***101 Speech Lab (1)**

*Must be taken concurrently with SPCH 150.* For the SPCH 150 student who seeks additional help in alleviating the anxiety often associated with public speaking. Students attend one hour per week, receiving a variety of support geared to their individual needs. CR/NC grading only.

**150 Fundamentals of Oral Communication (3) [GE]**

Introduction to communication in interpersonal contacts, group interactions, and formal speaking. Skill development in listening, speech preparation, and oral presentation.

**250 Argumentation and Advocacy (4) [GE]**

Argumentation theory: issues, validity and fallacy in inductive and deductive reasoning, forms of argument, and evaluation of evidence. Analysis of arguments surrounding social, political, and economic issues in public controversy.

**302 Communication and Social Process (4) [GE]**

*Prerequisite: SPCH 150 or consent of instructor.* 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.

**303 Communication and Human Interaction (4)**

Introduction to human communication from its intrapersonal beginnings through the dynamics of the interpersonal exchange.

**321 Communication Theory (4) [GE]**

*Prerequisite: SPCH 150 or consent of instructor.* Communication theories and research. Communication models, verbal and nonverbal symbols, systems theory, symbolic interactionism, persuasion/compliance-gaining, and communication in various contexts.

**331 Verbal and Nonverbal Symbols (4) [GE]**

*Prerequisite: SPCH 150 or equivalent.* Verbal and nonverbal symbol systems in spoken language: purposes that symbols serve in communication; ways that symbol systems vary across communication groups.

**341 Rhetorical Theory (4)**

*Prerequisite: SPCH 150 or consent of instructor.* Theoretical principles of rhetoric: attitude formation and change, audience and audience analysis, ethics, appeals, invention, disposition, style, argument struc-

tures, strategies, topoi, criticism, humor, and metaphor.

**350 Spoken English (4)**

*Prerequisite: SPCH 150 or equivalent or consent of instructor.* Theory and practice in the pronunciation and rhythm patterns of spoken American English. Skill improvement for non-native and native speakers who wish to modify non-standard or regional accents. May be repeated for a total of 8 units.

**351 Public Speaking (4)**

Principles of effective extemporaneous speaking; practice in preparation and delivery of speeches for different occasions. Class criticism of student speeches.

**352 Women and Words (4) [GE]**

*Prerequisite: upper division standing.* 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.

**353 Speech for the Classroom Teacher (4)**

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.

**362 Introduction to Oral Interpretation (4) [GE]**

*Prerequisite: SPCH 150 or consent of instructor.* Oral interpretation of literature: excerpts from prose, poetry, and public speeches. Analysis of literature, script development, and performance skills.

**363 Oral Interpretation of the First Person Voice (4) [GE]**

*Prerequisite: SPCH 150 or equivalent.* 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.

**364 Oral Interpretation of Children's Literature (4)**

*Prerequisite: SPCH 150 or equivalent.* 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.

**365 Argumentation and Debate (4)**

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.

**366 Persuasion (4)**

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.

**368 Forensics (2) [GE]**

On-campus and intercollegiate forensics activities including debate, oratory, extemporaneous speaking, and discussion. May be repeated once.

**410 American Phonetics (4)**

*Prerequisite: SPCH 150 or equivalent or consent of instructor.* Speech sounds and prosodic features of American English. Relationship between sounds and the alphabet, and transcribing speech using the International Phonetic Alphabet.

**411 Language for Teachers (4)**

*Prerequisites: SPCH 150 and ENG 214.* 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.

**440 Political Communication (4) [GE]**

*Prerequisite: SPCH 150 or consent of instructor.* American political communication in terms of rhetorical structure, substance, strategy, and style. Analysis of contemporary political campaign rhetoric and communication.

**441 Rhetoric of American Dissenters (4)**

*Prerequisite: SPCH 150 or equivalent or consent of instructor.* 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.

**443 Rhetoric of Feminist Movements (4) [GE]**

*Prerequisite: SPCH 150 or equivalent or consent of instructor.* Impact of women leaders of single and multiple issue campaigns on American social policy. Overview of social movement and rhetorical criticism literature.

**444 Rhetoric of the Media (4) [GE]**

*Prerequisite: SPCH 150 or equivalent or consent of instructor.* 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.

**461 Issues in Free Speech (4) [GE]**

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.

**496 Special Studies in Communication and Social Criticism (4)**

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

**502 Interpersonal Communication (4) [GE]**

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.

**503 Gender and Communication (4) [GE]**

*Prerequisite:* SPCH 150 or equivalent or consent of instructor. 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.

**508 Children's Communication (4)**

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.

**512 Nonverbal Communication (4)**

Theory and research on nonverbal communication. Interpersonal space, facial displays, body posturing, paralanguage, and costume. Individual awareness of nonverbal messages and individual range of non-verbal expression.

**515 Family Communication (4) [GE]**

*Prerequisite:* SPCH 150 or consent of instructor. Family communication patterns: relational communication, family themes and rules, roles, power, decision-making, conflict, and responses to change and stress.

**516 Special Studies in Interpersonal Communication (4)**

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

**521 Group Discussion (4)**

*Prerequisite:* SPCH 150 or equivalent. 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.

**522 Communication Analysis of Organizations (4)**

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.

**525 Sexual Identity and Communication (4) [GE]**

*Prerequisite:* SPCH 150 or ENG 114 or consent of instructor. 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.

**527 Health Communication (4)**

*Prerequisite:* SPCH 150 or equivalent or consent of instructor. 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.

**530 Communication in Organizational Training (4)**

*Prerequisites:* SPCH 150 and 522 or equivalent or consent of instructor. Communication techniques necessary for successful training in organizations. Skills in assessing training needs, designing programs, and evaluating results.

**531 Conflict Resolution (4) [GE]**

*Prerequisite:* SPCH 150 or consent of instructor. Communication and conflict in two-person, small group, and organization settings. Conflict resolution and leadership skills development.

**532 Interviewing Methods in Organizational Settings (4)**

*Prerequisite:* SPCH 150 or consent of instructor. 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.

**533 Communication and Empowerment in Organizations (4)**

*Prerequisite:* SPCH 522 or consent of instructor. 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.

**536 Special Studies in Group and Organizational Communication (4)**

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

**537 Leadership Communication (4) [GE]**

*Prerequisites:* SPCH 150 or equivalent and/or consent of instructor. Theories of leadership communication as they are manifested in organizational and public settings to attain goals.

**541 Intercultural Communication (4) [GE]**

*Prerequisite:* SPCH 150 or ENG 114 or consent of instructor. 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.

**542 Intracultural Communication (4) [GE]**

*Prerequisites:* SPCH 150 and ENG 214 or equivalent or consent of instructor. 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.

**543 Dialogues Across Differences (4)**

*Prerequisites:* SPCH 150 or equivalent, or consent of instructor. 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.

**550 Classical Rhetoric (4)**

Rhetorical theory, concepts, and practices of Pericles, Demosthenes, Isocrates, Plato, Aristotle, Cicero, and Quintilian.

**561 Introduction to General Semantics (4)**

Symbols: how they structure and order thought and influence behavior. Korzybski's principles of non-identity, non-allness, levels of abstraction, inferences, extensional devices; semantic reactions to contemporary rhetoric.

**570 Human Communication and New Technologies (4)**

How technologies such as teleconferencing, telecommunicating, computer conferencing, video-texts, electronic mail, etc., will affect human communication. Issues of trust, synchrony, privacy, and electronic style.

**661 Communication Research Strategies (4)**

Basic empirical research skills; design of studies, analysis of data, and preparation of research reports. Practical applications of research.

**662 Communication Criticism (4)**

*Prerequisite:* SPCH 150 or equivalent. 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.

**663 Qualitative Methods in Communication and Performance (4) [GE]**

*Prerequisite:* SPCH 150 or equivalent and/or consent of instructor. 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.

**681 Voice and Articulation Theory and Practice (4)**

*Prerequisite:* SPCH 150 or equivalent or consent of instructor. 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).

**685 Projects in the Teaching of Speech Communication (1-4)**

*Prerequisites:* grade of B or better in the course in which the student will be aide (or its equivalent) and consent of instructor. Students learn more about a previously studied topic in communication and about pedagogical strategies for sharing that knowledge. May be repeated for a total of 4 units.

**688 Assessment in English Language Arts (1)**

*Prerequisites:* senior standing and interview with English single subject credential adviser. Performance assessment of strengths and weaknesses in English language arts: oral and written performance, response to literature, applied language concepts. Required for students entering the Single Subject Credential in English. (Also offered as ENG 688.)

**695 Internship/Service Learning in Communication Studies (4)**

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 12 units; only 8 units applicable to major program.

**697 Performance Theory and Practice in Communication (4)**

*Prerequisite:* upper division performance course or consent of instructor. Oral interpretation of literature and oral traditions. Solo and ensemble performance outside the classroom. Paired with SPCH 797. Students completing SPCH 697 may not take SPCH 797 later for credit.

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

*Prerequisites:* upper division standing, consent of major adviser and supervising faculty member. Supervised study in speech is planned and completed under the direction of a member of the department. May be repeated for credit. Enrollment by petition. Enrollment priority given to classified speech communication graduate students.

**Graduate Courses****700 Introduction to Graduate Study (4)**

Research and research methodologies. Language and tools for controlled and systematic investigation of speech communication phenomena.

**721 Seminar in Rhetorical and Communication Theory (4)**

*Prerequisite:* SPCH 300 or equivalent. Issues in rhetorical and communication theory and practice from the classical period to the present.

**725 Seminar in Sexual Identity and Communication (4)**

*Prerequisite:* graduate status 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.

**731 Seminar in Communication and Social Criticism (4)**

*Prerequisite:* SPCH 302 or equivalent. Contemporary persuasion, propaganda, social control, political leadership, and the rhetorical dimensions of social events.

**740 Seminar in Interpersonal Communication (4)**

*Prerequisite:* SPCH 303 or equivalent. Intra- and interpersonal variables necessary to the understanding of human interaction including both verbal and non-verbal phenomena.

**745 Seminar in Gender and Communication (4)**

*Prerequisite:* SPCH 700 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.

**750 Seminar in Communication and Culture (4)**

*Prerequisite:* SPCH 700 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.

**751 Intercultural Communication Training (4)**

*Prerequisite:* SPCH 700 or consent of instructor. Recommended: SPCH 750 or 760. Assessing organizational needs to improve relationships among cultural groups; designing, delivering, and evaluating training programs to provide skills to improve intercultural relations.

**760 Seminar in Organizational Communication (4)**

*Prerequisite:* SPCH 521 or equivalent. 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.

**761 Seminar: Corporate Communication (4)**

*Prerequisite:* graduate status 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.

**771 Communication Research Strategies (4)**

Basic empirical research skills; design of studies, computer analysis of data, and preparation of research reports.

**772 Field Research Strategies (4)**

*Prerequisite:* SPCH 700 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.

**785 Graduate Projects in the Teaching of Speech 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.

**797 Performance Theory and Practice in Communication (4)**

*Prerequisite:* upper division performance course or consent of instructor. For course description, see SPCH 697. Paired with SPCH 697. Students who have completed SPCH 697 may not take SPCH 797 for credit.

**850 Teaching Speech Communication (4)**

*Prerequisites:* classified graduate status in speech communication and SPCH 700. Concepts, principles, and skills in teaching speech communication. Assessing student needs, designing instructional models, writing instructional objectives, constructing evaluative measures, and reviewing the theory of

interpersonal, small group, and public communication.

**851 Internship in Teaching Speech Communication (2)**

*Must be taken concurrently with SPCH 850.* 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.

**852 Supervision of Teaching Speech Communication (1)**

*Prerequisite:* teaching assignment in college level oral communication course. Supplements teaching experience with appropriate supervision and training in curriculum, teaching techniques, grading procedures, etc. Repeatable once for credit. CR/NC grading only.

**855 Coaching Forensics (4)**

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.

**880 Studies in Contemporary Theory (4)**

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

**894 Creative Work Project (3)**

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

**896 Directed Readings in Speech Communication (3)**

*Prerequisites:* Graduate Approved Program (GAP) and Proposal for Culminating Experience Requirement forms approved by adviser/department 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.

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

*Prerequisites:* advancement to candidacy for the master's degree and recommendation of major adviser. An intensive, systematic study of a significant topic or problem in speech communications. The final written work must evidence originality, critical and independent thinking, 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.

**899 Advanced Problems for Investigation in Speech and Communication Studies (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 of

demonstrated ability to do independent work. Enrollment by petition.

## TECHNICAL AND PROFESSIONAL WRITING

### Undergraduate Courses

#### 400 Fundamentals of Technical and Professional Writing (3)

*Prerequisites:* ENG 214 or equivalent and pass on writing test given in first class. Forms, methods, standards, and issues central to the work of career writers. Students produce technical instructions, reports, promotions, and correspondence.

#### 470 Writing Professional Promotions (3)

*Prerequisites:* ENG 214 or equivalent and pass on writing test given in first class. Developing documents for corporate communications, marketing, public relations, and development purposes. High-tech and non-profit applications.

#### 480 Writing Technical Documentation and Procedures (3)

*Prerequisites:* ENG 214 or equivalent and pass on writing test given in first class. Enrollment limited to TPW majors, minors, and certificate students. Developing informational manuals, especially computer user documentation: design, writing, editing, and production.

#### 490 Grantwriting (3)

*Prerequisite:* ENG 214 or equivalent and pass on writing test given in first class. Enrollment limited to TPW majors, minors, and certificate students. Practice in grant proposal writing and research. Requests from private non-profit organizations to various funding agencies.

#### 550 Professional Editing (3)

*Prerequisite:* TPW 400 with grade of C or better. Skills and conventions for professional editors, including introduction to the role and related expectations. Practice in editing different types of documents for clarity, consistency, and content.

#### 555 Desktop Publishing for Professional Writers (3)

*Prerequisite:* TPW 400 with grade of C or better. Graphic design principles and process. Strategies for integrating text and graphics. Workshop teaches desktop publishing program. Required laboratory.

#### 585 Writing for On-line Presentation (3)

*Prerequisite:* TPW 480, or both TPW 550 and 555. Development of on-screen text: for documentation, promotions, and/or presentations. Adapting design and writing strategies for on-line formats. Required laboratory.

#### 600 Individual and Team Writing (3)

*Prerequisites:* TPW 550 and TPW 555 with grades of C or better. Developing professional project management, research, group work, and presentation skills. Projects explore current topics and/or forms.

#### 625 Advanced Topics for Technical and Professional Writers (3)

*Prerequisites:* TPW 550 and TPW 555 with grades of C or better. Career preparation: develop resume and portfolio; employment trends and professional resources. Projects involve current forms, technologies, and/or techniques. Required laboratory.

#### 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 and limited to one student per course. Assist with computer laboratory teaching and complete related projects. May be repeated for a total of 4 units.

#### 695 Internship in Technical and Professional Writing (3)

*Prerequisites:* 15 units of TPW core or skills elective courses, including TPW 550 and TPW 555, all with grades of C or better. Enrollment requires consent of TPW adviser. Supervised writing or editing experience in a professional setting. See adviser for guidelines.

#### 698 Supervised Writing Project (3)

*Prerequisites:* TPW 550 and TPW 555, with grades of C or better. Enrollment requires consent of TPW adviser. Independent development of publishable quality document, from research to final production. Student consults the instructor initially and for periodic progress reviews.

#### 699 Special Study in Technical and Professional Writing (1-4)

*Prerequisite:* TPW 550 and TPW 555 with grades of B- or better. Enrollment requires consent of TPW adviser. Special study in some aspect of technical and professional writing, performed under program faculty supervision. May be repeated for a total of 6 units.

## THEATRE ARTS

### Undergraduate Courses

#### 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.

#### 130 Acting Workshop I (3) [GE]

The craft of acting. Improvisations, theatre games, and exercises to develop flexibility, imagination, agility, and expressiveness.

#### 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.

#### 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.

#### 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.

#### 300 Theatre Imagination (3) [GE]

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.

#### 304 Focus on Acting (1)

*Topic to be specified in Class Schedule.* May be repeated for a total of 3 units when topics vary.

#### 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.)

#### 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.

#### 311 Summer Laboratory and Crew (2)

*Prerequisites:* TH A 205 or consent of instructor. Practical experiences in phases of technical work associated with university productions in areas of scenery, properties, costumes, lighting, and sound. May be repeated for a total of 4 units.

#### 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.

#### 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.

#### 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.

**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.

**332 Asian Acting for Western Actors (3)**

*Prerequisite:* TH A 130 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.

**333 Lyric Theatre Workshop (3) [GE]**

*Prerequisite:* TH A 130 or equivalent. Fundamental techniques of integration in acting, singing, and movement in music theatre performance. May be repeated for a total of 6 units.

**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.

**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.

**341 History of Directing (3)**

*Prerequisite:* TH A 130. Introduction to the principle schools of stage direction as practiced by directors past and present. Lecture/demonstrations covering nascent stages of Duke of Saxe-Meinengen and Antione, and culminating with contemporary artists such as Mnouchkine, Brook, Wilson.

**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.

**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.

**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.

**406 The Art of Comedy (3) [GE]**

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.

**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.

**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.

**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.

**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.

**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.

**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.

**423 Voice II: Styles (3)**

*Prerequisites:* TH A 220, 223, or equivalents. Voice training: developing vocal skills required by different styles of drama such as improvisation, realism, restoration, and Shakespeare.

**425 Movement II: Styles (3)**

*Prerequisite:* TH A 230 or equivalent. Movement training: styles such as mime, commedia, use of masks to develop the actor's versatility, and control of movement. Laboratory. May be repeated for a total of 6 units.

**430 Acting Workshop IV (3)**

*Prerequisites:* TH A 330 plus an audition. Refined training of the actor as a theatrical instrument. Application of technique to the level of interpretation. Work in period and style. Laboratory. May be repeated for a total of 6 units.

**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.

cal plays. Laboratory. May be repeated for a total of 6 units.

**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.

**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.

**450 Children's Literature and Oral Experiences (3)**

Children's literature with emphasis on content and use; introductory experiences from: reading aloud, storytelling, creative drama.

**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.

**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.

**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.

**500 Explorations in Theatre Arts (3)**

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

**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: prehistory to 1700. Visual research methods.

**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.

**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.

### 515 Stage Management (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.

### 519 Theatre Management (2)

*Prerequisites:* TH A 310, TH A 312, TH A 313. *Must be taken concurrently with TH A 520.* Public relations, promotion and publicity, practical experience in box office and house management. May be repeated for a total of 4 units.

### 520 Theatre Management Laboratory (1)

*Must be taken concurrently with TH A 519.* Laboratory for theatre management course. Minimum 3 hours weekly required. May be repeated for a total of 2 units.

### 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.

### 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.

### 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.

### 531 Styles of Acting (3)

*Prerequisite:* audition. *Area of study to be specified in Class Schedule.* May be repeated as areas vary. Laboratory.

### 532 Asian Theatre Workshop (3)

*Prerequisites:* TH A 340 plus one of the following: TH A 332, TH A 408, or consent of instructor. Analytical and creative study of Asian theatre; practice in acting and directing traditional Asian theatre pieces or Western plays with Asian techniques; development of new performance style based on Asian examples.

### 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.

### 534 Performing Yiddish Theatre (3)

*Prerequisites:* TH A 130 and audition, and/or consent of instructor. Investigation of early 20th century Yiddish theatre. Rehearsal and performance in workshop production of play from era. (No prior knowledge of Yiddish necessary.) (Also offered as JS 534. May not be repeated under alternate prefix.)

### 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.

### 558 Writing and Directing in Film and Theatre (3)

*Prerequisite:* TH A 230 or consent of instructor. For course description, see CINE 555. May not be repeated under alternate prefix.

### 605 Writing and Performing Monologues (3)

*Prerequisite:* C W 301 or TH A 130 or consent of instructor. 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. (Also offered as C W 605.)

### 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.

### 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.

### 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.

### 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.

### 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.

### 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.

### 661 Play Development Showcase (3)

*Prerequisites:* TH A 230, 340, 460, or 660; and consent of instructor. Development and presentation of short plays and monologues by SFSU students. Writers, actors, and directors collaborate in rehearsal, production, and performance. Admission by audition/submission, and permission of instructor only. May be repeated for a total of 9 units.

### 685 Projects in 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 instructionally-related Theatre Arts class, and learn about educational theatre through fieldwork. May be repeated for a total of 4 units.

### 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.

### 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.

### 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

### 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.

### 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.

### 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.

### 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.

### 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; post-modernism.



**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.

**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.

**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.

**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.

**735 Advanced Rehearsal and Performance Technique (1)**

*Prerequisites:* classified graduate status in theatre arts and consent of instructor/graduate faculty adviser. Rehearsal and performance in a major production; experience which amplifies other graduate studies. Laboratory. CR/NC grading only. May be repeated for a total of 3 units.

**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.

**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.

**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.

**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.

**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.

**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***Undergraduate Courses***200 Changing Cities (3)**

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. (Also offered as SOC 200.)

**400 Dynamics of the American City (3) [GE]**

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. (Also offered as HIST 489.)

**432 Urban Geography (4) [GE]**

*Prerequisite:* ENG 214 or equivalent. For course description, see GEOG 432. (May not be repeated under alternate prefix.)

**433 Urban Transportation (4) [GE]**

For course description, see GEOG 433. (May not be repeated under alternate prefix.)

**456 Urban Community Organizing and Citizen Action (3)**

For course description, see S W 456. (May not be repeated under alternate prefix.)

**470 City in a Global Society (4) [GE]**

*Prerequisites:* ENG 214 and upper division standing. For course description, see SOC 480.

**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.

**480 Policy Analysis (4) [GE]**

*Prerequisite:* upper division standing. For course description, see PLSI 480.

**485 San Francisco Political Issues (4)**

*Prerequisite:* upper division standing. For course description, see PLSI 475.

**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. (Also offered as PLSI 492.)

**493 Data Analysis (4)**

*Prerequisite:* URBS/PLSI 492 or equivalent. For course description, see PLSI 493.

**512 Urban Politics and Community Power (4)**

*Prerequisite:* upper division standing. Political dynamics in metropolitan context and bases and distribution of power in urban and suburban areas. Leadership, decision-making, and representation in metropolitan politics. Intergovernmental relations and urban political power. (Also offered as PLSI 512.)

**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. (Also offered as GEOG 668 and PLSI 513.)

**514 Sustainable Development in Cities (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Analysis of economic and development theories, methods, policies, planning; international institutions like WTO, World Bank; North/South relations. Concepts, methods, decision-making, evaluation, financing related to sustainable development. In-depth analysis of case studies of sustainable development projects from Africa, Latin America, Asia, Europe and North America.

**515 Race, Poverty, and the Urban Environment (4) [GE]**

*Prerequisite:* upper division standing or consent of instructor. Background and analytical tools to understand how pollution and other assaults differentially affect communities in the USA and abroad; particular focus on racial, ethnic, class dynamics; mainstream and environmental justice movements, public policy and planning. (Also offered as GEOG 667.)

**530 Alternative Urban Futures (3) [GE]**

*Prerequisites:* ENG 214 and junior standing. Exploration of the future of urban areas 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.

**535 Urban Economics (3) [GE]**

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For course description, see ECON 535.

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

*Prerequisites:* one course in cultural anthropology and upper division standing or URBS 400. For course description, see ANTH 555.

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

*Prerequisites:* URBS 555 or consent of instructor. For course description, see ANTH 557.

**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. (Also offered as PLSI 560.)

**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.

**570 Urban Health Policy (3) [GE]**

*Prerequisites:* upper division standing; ENG 214 or equivalent. Political economy of urban health system. Critical review of urban health policy; analysis of alternatives. Politics of health care reform. Particular needs of women and communities of color. (Also offered as LABR/PLSI 570. May not be repeated under alternate prefix.)

**580 Urban Housing (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. (Also offered as PLSI 580.)

**582 Homelessness and Public Policy (3) [GE]**

*Prerequisite:* completion of critical thinking component of GE. For course description, see H ED 582.

**603 Public Service Internships (3) F,S**

*Prerequisites:* upper division standing and consent of instructor. Must be taken concurrently with URBS 604. For course description, see PLSI 603.

**604 Internship Seminar (1) F,S**

Must be taken concurrently with URBS 603. For course description, see PLSI 604.

**651 San Francisco Bay Area Environmental Issues (4) [GE]**

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. (Also offered as GEOG 651.)

**652 Environmental Impact Analysis (4)**

For course description, see GEOG 652.

**658 Land Use Planning (4) [GE]**

For course description, see GEOG 658.

**660 The Roles of Non-profit Organizations in Urban Life (3) [GE]**

For course description, see S W 660. (Also offered as PLSI 660.)

**680 Senior Seminar (4) F,S**

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 URBS core requirements.

**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 assist-

ing. 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.

**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.

**699 Independent Study (1-3) F,S**

*Prerequisite:* consent of instructor. Supervised individual research project of special interest to develop research capability.

**WOMEN STUDIES***Undergraduate Courses***150 Women in American History and Society (3) [US] F**

historical development of American institutions and ideals and the evolution of economic, political, and social processes in the U.S. from American Indian times to the present. roles and status of women. (Page reference for U.S. history requirement can be found in the Index.)

**160 Women, Politics, and Citizenship (3) [US,CA] S**

American political ideals, institutions, and processes; implications for women and women's contributions to public life. (Page reference for U.S. government and the California state and local government requirement can be found in the Index.)

**200 Introduction to Women and Gender Studies (3) [GE]**

Introduction to origins, purpose, subject matter, and methods of women studies and the feminist perspectives on a range of social issues affecting women.

**301 Women in Groups: Communication and Process (3) [GE]**

Women's communication practice, both verbal and non-verbal. Roles of women as leaders within groups and the functioning of leaderless groups. Experiences of women as participants in communication.

**302 Translating Women's Experience (3) [GE]**

*Prerequisite:* three units of English composition or equivalent. Ways to translate women's cultural experience into writing. Students express, analyze, and act upon women's experience in several modes: personal and critical essays, journals and autobiographies, fiction and poetry, socio-political action writing.

**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.

**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.

**305 Women Studies Lecture Series (1)**

*Prerequisite:* ENG 214. Offers undergraduates a sampling of current feminist perspectives on scholarship, research, and activism. Paired with WOMS 805. Students who have completed WOMS 305 may not take WOMS 805 later for credit. CR/NC grading only.

**400 Research Methods in Women and Gender Studies (3) [GE]**

*Prerequisite:* WOMS 200. Women and gender: feminist knowledge, review of methodological problems, and the understanding of the importance of power relations in the formation of knowledge.

**445 Gendered Borders: Latinas and Globalization (3)**

*Prerequisite:* upper division standing or consent of instructor. For course description, see RAZA 445. (May not be repeated under alternate prefix.)

**485 Women and Media (3) [GE]**

*Prerequisite:* upper division standing. For course description, see BECA 485.

**510 Special Issues of Women and Violence (3)**

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

**511 Women and Violence (3)**

*Prerequisite:* ENG 214 or equivalent. The psychological and physical violence visited upon women; relations of gender and violence. Research, feminist theory, and controversy within the women's movement; incest, rape, battery, pornography, etc.

**512 Feminist Approaches to Sexual Identities and Cultures (3)**

*Prerequisite:* ENG 214. Feminist scholarship on sexual identities, movements, and cultures in different parts of the world and different historical periods. Paired with WOMS 712. Students who have taken WOMS 512 may not take WOMS 712 later for credit.

**514 Incarcerated Women (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.

**530 Women Studies and Social Theory (3)**

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

**531 Women and International Development (3) [GE]**

*Prerequisite:* WOMS 200 or consent of instructor. Study of the crucial roles women play in economic development and liberation struggles throughout the world. Examination of the impact of different

technologies and strategies used by development agencies like the World Bank and A.I.D. on the lives of women.

### 533 Women and Men Changing (3) [GE]

*Prerequisite:* ENG 114 or equivalent. Film, literature, small group dynamics used to help women and men become better co-workers, parents, political allies, friends, lovers. Re-educate women and men of different cultures to new understandings of their interpersonal/social relations.

### 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.

### 534 Women and the Law (3) [GE]

*Prerequisite:* ENG 114 or equivalent. Our legal system's treatment of women's rights and responsibilities in the areas of property, criminal, family, and constitutional law; employment, education, and reproduction. (Also offered as SS 345.)

### 535 History of Women in Latin America (3) [GE]

*Prerequisite:* upper division standing or consent of instructor. For course description, see HIST 535. (Also offered as RAZA 533. May not be repeated under alternate prefix.)

### 540 Issues in the Humanities and Arts (3)

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

### 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 in the U.S. for progressive social change.

### 542 Women's Music and Social Consciousness (3)

*Prerequisite:* ENG 214 or equivalent. Women's contributions to popular and folk music in the U.S.; relationship of this music to the development of consciousness about women's status and oppression. Women's music as a form of resistance.

### 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. (Also offered as ENG 613.)

### 546 Twentieth Century American Jewish Women Writers (3) [GE]

*Prerequisite:* ENG 214 or equivalent. For course description, see ENG 546. (Also offered as JS 546.)

### 548 Literature by U.S. Women of Color (3) [GE]

*Prerequisite:* ENG 114 or equivalent. Twentieth century literature by African American, Latina, Asian American, and Native American women. Literary forms, styles, images, and themes used by each

group to express racism, sexism, and daily life in the U.S.

### 550 Special Studies in Lesbian Lives (3)

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

### 551 Lesbian and Queer Perspectives in Literature and Media (3) [GE]

*Prerequisite:* ENG 114 or consent of instructor. Literature and media productions by lesbians and queers of various racial, ethnic, and socio-economic backgrounds. Emergence of lesbian and queer concerns and feminist concerns and issues of cultural production and literary form. (Also offered as HMSX 551.)

### 552 Lesbian Lives and Thought (3) [GE]

*Prerequisite:* ENG 114 or equivalent. Lesbian history: female romantic friendships, women who pass as men, development of "lesbian" as a deviant category, birth of a Lesbian Liberation movement. Contemporary issues: coming out process, families of origin and created families, parenting, relationships, sex, work, legal rights, and culture.

### 554 Immigrant and Refugee Women (3) [GE]

*Prerequisite:* WOMS 564/764 or another course on history of colonialism in the Modern period. Condition of refugee and immigrant women in the world: causes, conditions, and problems of such movements. The cultural, economic, and social issues. Paired with WOMS 754. Students who have completed WOMS 554 may not take WOMS 754 later for credit.

### 560 Alternative Representation in Documentary Production (3)

*Prerequisites:* upper division standing and consent of instructor. For course description, see CINE 560. (Also offered as ETHS 560. May not be repeated under alternate prefix.)

### 561 Women of Color in the U.S. (3) [GE]

*Prerequisite:* ENG 114 or equivalent. Issues and themes in the history, culture, and contemporary lives of Black, Native American, Asian American, and Latina women in the U.S.

### 562 History of African American Women (3) [GE]

*Prerequisite:* ENG 114 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 in the 19th and 20th centuries.

### 564 Women Writers and Colonialism (3) [GE]

*Prerequisite:* ENG 214 or equivalent. Literature by women writers whose work addresses the experience of peoples in colonized countries with a history of colonialism and/or imperialism. Paired with WOMS 764. Students who have completed WOMS 564 may not take WOMS 764 later for credit.

### 565 Women in the Muslim and Arab Worlds (3) [GE]

*Prerequisite:* upper division standing or consent of instructor. Differences/similarities in women's lives in Muslim/Arab world, including diaspora in Europe

and North America. Minorities in Arab Middle East. Issues of gender as it relates to nationalism, religion, and culture.

### 571 Women, Poverty and Globalization (3)

*Prerequisite:* ENG 214. Understanding of globalization and its relationship to women's poverty; work with a community organization concerned with these issues. Paired with WOMS 771. Students who take WOMS 571 may not take WOMS 771 later for credit.

### 575 History of Women in China and Japan (3) [GE]

*Prerequisite:* upper division standing or consent of instructor. For course description, see HIST 575.

### 590 Special Issues in Women Studies (3)

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

### 593 Women, 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.

### 595 Anthropology of Women (3) [GE]

*Prerequisite:* ENG 114 or equivalent. For course description, see ANTH 590. (Also offered as CST 590.)

### 611 Female Sexuality: Social and Theoretical Perspectives (3) [GE]

*Prerequisites:* ENG 114 or equivalent and WOMS 200 or consent of instructor. Relationship between female sexuality and its historical, social and ideological contexts focusing on trends and issues in current feminist thought. Critical race studies, lesbian/gay/bisexual/ transgender studies, transnational feminism, reproductive and non-reproductive sexualities.

### 621 Feminist Thought (3)

*Prerequisites:* ENG 114 or equivalent and WOMS 200 or consent of instructor. Trends in feminist thought as applied to such issues as sexuality, racism, economics, the family, spirituality, and global ecology; the origins of these trends in political theory, personal experience, and social context.

### 685 Projects in the Teaching of Women Studies (1-4)

*Prerequisites:* advanced undergraduate standing in women 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 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.

### 698 Work Study in Feminist Projects (1-3)

Supervised community, university, or Women Studies service which implements or otherwise relates to the women studies major, individual WOMS courses

es, or the student's own major. May be taken for a total of 9 units.

### 699 Special Study (1-3)

*Prerequisite:* ENG 114 or equivalent. Special study in some aspect of feminism or women studies, performed under department faculty supervision. Enrollment by petition. Repeatable for credit.

### Graduate Courses

#### 700 Introduction to Graduate Study (3)

Origins and current status of women 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.

#### 710 Women's Consciousness and Resistance in Cross-cultural Perspectives (3)

*Prerequisite:* WOMS 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.

#### 712 Feminist Approaches to Sexual Identities and Cultures (3)

*Prerequisite:* WOMS 700 or consent of instructor. For course description, see WOMS 512. Paired with WOMS 512. Students who have taken WOMS 512 may not take WOMS 712 for credit.

#### 713 Issues in Feminist Theory (3)

*Prerequisite:* WOMS 700 or consent of instructor (WOMS 700 may be taken concurrently). Specific issues, topics, or theoretical tendencies in current feminist discussion and debate; implications of theory for social practice.

#### 720 Feminist Pedagogies (3)

*Prerequisite:* WOMS 700 or consent of instructor. Theories, methods, and planning of women studies courses; designed for women studies majors interested in teaching at the college level.

#### 747 Feminist Criticisms (3)

*Prerequisite:* graduate status in women studies or consent of instructor. Diverse feminist theoretical and critical approaches in social contexts; canons; female aesthetics; social, linguistic, and psychoanalytic approaches. (Also offered as ENG 747.)

#### 750 Issues of Gender, Race, Class, Sexuality (3)

*Prerequisite:* WOMS 700 or consent of instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

#### 754 Immigrant and Refugee Women (3)

*Prerequisite:* WOMS 564/764 or another course on history of colonialism in the Modern period. For course description, see WOMS 554. Paired with WOMS 554. Students who have completed WOMS 754 may not take WOMS 554 for credit.

#### 760 Issues in Women's Literature and Culture (3)

Topic to be specified in Class Schedule. May be repeated when topics vary.

#### 764 Women Writers and Colonialism (3)

*Prerequisite:* ENG 214 or equivalent. For course description, see WOMS 564. Paired with WOMS 564. Students who have completed WOMS 764 may not take WOMS 564 for credit.

#### 770 Issues in Women and Public Policy (3)

*Prerequisite:* WOMS 700 or consent of instructor. Topic to be specified in Class Schedule. May be repeated once when topics vary.

#### 771 Women, Poverty and Globalization (3)

*Prerequisite:* classified graduate status. For course description, see WOMS 571. Paired with WOMS 571. Students who have completed WOMS 771 may not take WOMS 571 for credit.

#### 785 Graduate Projects in the Teaching of Women Studies (4)

*Prerequisites:* grade of B or better or equivalency for the course in which the graduate student will be an aide and consent of instructor. Provides practical learning experience and knowledge of pedagogical strategies and principles of teaching and learning women studies subject matter.

#### 805 Women Studies Lecture Series (1)

For course description, see WOMS 305. Paired with WOMS 305. Students who have completed WOMS 805 may not take WOMS 305 for credit. CR/NC grading only.

#### 820 Feminist Research Methods (3)

*Prerequisite:* graduate status or consent of instructor. For women studies students, WOMS 700 required. Social research and feminism. Analyze research studies, develop skills, and develop their master's projects.

#### 894 Creative Work Project (3)

*Prerequisites:* WOMS 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.

#### 895 Field Study Project (3)

*Prerequisites:* WOMS 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.

#### 898 Master's Thesis (3)

*Prerequisites:* WOMS 700, advancement to candidacy, and approval of graduate major adviser. Intensive study of a topic or issue within the field of women studies, culminating in a written thesis showing independent thinking, appropriate methodology and organization, clarity of purpose, thorough docu-

mentation, 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.

#### 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.