

# COURSE DESCRIPTIONS

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## American Multicultural Studies (AMCS)

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### AMCS 200 WRITTEN AND ORAL ANALYSIS (3)

Students practice the techniques of critical reading and thinking, of expository writing and of oral expression through an in-depth examination of race, ethnicity, and multiculturalism and its impact on American cultural, political, and social institutions. They examine the principles of thinking, speaking, and writing with a view to the multiple purposes for which these activities are crucial. Satisfies GE, Category A1. Prerequisites: Completion of GE Categories A2 and A3

### AMCS 210 ETHNIC GROUPS IN AMERICA (4)

Survey and analysis of the diverse experiences of major ethnic groups in their present socioeconomic and political position in American society as depicted in literary, historical, anthropological, and sociological studies. Satisfies ethnic studies in GE, category D1. This course satisfies one of the core requirements of the AMCS major.

### AMCS 255 ETHNICITY IN THE HUMANITIES (3)

A general survey of the major artistic and expressive developments in the U.S. with reference to native ethnic populations. An assessment of how race and ethnicity are represented in the arts, humanities, media, and popular culture. This course satisfies one of the core requirements of the AMCS major. May be taught with a focus on a single racial or ethnic group. Satisfies GE category, C4.

### AMCS 330 MULTICULTURAL HISTORY OF THE UNITED STATES (4)

A survey of the origins and histories of a wide range of racial and ethnic groups in the United States. This course will explore the social, economic, and political evolutions of various groups in an effort to understand their positions in the United States today. It will also focus on the development of various racial categories and identities throughout the American past.

### AMCS 339 ETHNIC GROUPS AND AMERICAN SOCIAL POLICY (3)

The impact of American social policies on ethnic minorities. Topics include public policy issues related to employment, immigration, education, mental health, and minority children and families. The impact of major court decisions affecting public policy and ethnic minorities will also be examined. Course might be taught from single ethnic group's perspectives. Satisfies upper-division ethnic studies in GE, category D1.

### AMCS 345 FOLKLORE AND ETHNICITY (4)

Methods and materials dealing with the traditional expressive culture of American ethnic groups; oral literature, festivals, children's games, customs, and beliefs. Includes training in collecting oral traditions and in the analysis of folklore texts and contexts. Topics subject to change.

### AMCS 350 ETHICS, VALUES AND MULTICULTURALISM (3)

An examination of how issues of race, ethnicity affect the values and ethics of American society and its citizens. Students will be expected to assess how their views about race in the U.S. have been influenced by their upbringing and how their values and ethics reflect those views. This course satisfies one of the core requirements of the AMCS major. May be taught as a general survey or with a focus on a single racial or ethnic group. Meets ethnic studies and upper-division GE requirements in Area C3.

### AMCS 355 LANGUAGE AND ETHNICITY (3-4)

A study of language as an ethnic marker; language and ethnic identity; language and national revival; bilingualism and bi-dialectism; standard and nonstandard speech; foreign accents; linguistic assimilation vs. language retention. Satisfies upper-division ethnic studies in GE, category C4.

### AMCS 360 ETHNIC LITERATURE (3)

A survey of the representative novels, short stories, essays, biographies, and poetry of various ethnic authors in the United States. Satisfies upper-division ethnic studies in GE, category C2.

### AMCS 370 TOPICS IN ETHNIC/MULTICULTURAL STUDIES (4)

A course enabling students to conduct in-depth study of a specific area of ethnic culture. The course may cover subject topics as Asian American Cinema, Multicultural Autobiography, or African American music. Topics subject to change. May be repeated for credit with instructor's permission.

### AMCS 374 THE MULTIRACIAL EXPERIENCE (4)

A general survey of the historical and contemporary experience of people claiming more than one racial or ethnic background. Emphasis will be given to inter-racial relations, the impact of political and social factors, and the cultural expressions of the multiracial experience.

### AMCS 376 AFRICAN AMERICAN EXPERIENCE (4)

A historical examination of the African American experience from the pre-colonial period to the present. This course will pay special attention to cultural and sociological aspects of African American history with a particular focus on the impact of gender and class. This class asks students to use historical analysis to understand race relations in the 21st century.

### AMCS 377 ASIAN AMERICAN EXPERIENCE (4)

A course designed to explore areas of contemporary, historical or artistic concern as these affect the Asian American experience. Advanced studies and/or research projects will be discussed and analyzed.

### AMCS 381 RESEARCH ASSISTANTSHIP (2-4)

Student assistance to help faculty with research on the experiences of people of color in America. Topic matter and research agenda will be discussed with faculty. By individual arrangement with faculty sponsor.

### AMCS 385 FACILITATION TRAINING (2-4)

Facilitation pedagogy training in active learning situations within established courses. Prerequisite: junior/senior status with satisfactory completion of either AMCS 210 or 255. By individual arrangement with instructor.

### AMCS 392 ETHNIC IMAGES IN FILM AND MEDIA (3)

An examination of representative and significant works, tracing the evolution of ethnic images in cinema and media from their earliest to latest manifestations. Topics subject to change. Satisfies upper-division ethnic studies in GE, category C1.

### AMCS 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)

Course provides students with practical experience in various community organizations and health and social service agencies and educational settings. Includes schools, recreation programs, tutoring programs, day care centers, cultural arts organizations, civic promotion organizations, etc.

**AMCS 399 STUDENT INITIATED COURSE (1-4)**

Student initiated and instructed courses on topics that enrich or extend current departmental offerings. Students may take up to 4 units of AMCS 399 courses for major credit.

**AMCS 405 BLACK FAMILY LIFE IN AMERICA (4)**

Using sources from a wide range of disciplines, including literature, film, sociology, and history, students will review and assess major cultural themes surrounding black family life. Students will also be expected to explore how these narratives reflect larger issues of race and ethnicity in the United States.

**AMCS 420 GENDER AND ETHNICITY (4)**

A historical overview of racism and sexism as they affect women of color, focusing on issues in which racism and sexism intersect, e.g. affirmative action, abortion, sterilization, violence against women, and other issues.

**AMCS 430 TOPICS IN MULTICULTURAL HISTORY (4)**

Subjects will vary by semester, but this course will concentrate on topics and periods in American Multicultural History. Students will be required to do a research project in this course. Students will also be asked to review primary documents in American Multicultural History. May be repeated for credit with instructor's permission.

**AMCS 431 ETHNIC HISTORY OF CALIFORNIA (4)**

A historical examination of the major ethnic and racial groups in California and their influence on the Californian present and future. This course will look at environmental, social, demographic, geographical, sexual, political, and economic issues specific to California and its minority populations.

**AMCS 432 HEALTH AND CULTURE (4)**

An analysis of cultural and ethnic influences on health and health behavior, with an emphasis on developing strategies for bridging cultural disjunctions between health professionals and their clients, and for improving health care delivery to an ethnically diverse population.

**AMCS 439 CIVIL RIGHTS AND HUMAN RIGHTS LAW (4)**

A study of major court decisions, legal battles, and/or social movements that have influenced American's understanding of the civil rights and human rights that govern our society. This course will engage student understanding of the relationship between the executive, legislative, and judicial branches of government. Course may use a multicultural perspective or focus on a single racial or ethnic group.

**AMCS 445 MULTI-CULTURALISM AND EDUCATION (4)**

An analysis of the philosophical and definition issues related to pluralistic education; developing resources germane to this philosophy and the guidelines constituting the foundation for multiethnic educational programs and ethnic studies.

**AMCS 460 MULTI-ETHNIC CHILDREN'S LITERATURE (4)**

A study of multiethnic children's literature. Stories from folklore and literature are used to exemplify cultural images and traditions.

**AMCS 470 ADVANCED STUDIES IN ETHNIC CULTURE (4)**

A course enabling students to conduct in-depth study of a specific area of Ethnic culture. The course may cover subject topics as Asian American Cinema, Multicultural Autobiography, or African American music. Topics subject to change. May be repeated for credit with instructor's permission.

**AMCS 475 GLOBALIZATION AND RACE IN THE UNITED STATES (4)**

The United States, as one of the destination countries of diasporic peoples in this era of globalization, has often responded to the crises of globalization through racialization. This course emphasizes the importance of understanding this crisis and explores the possibilities of creating anti-racist strategies and new social movements.

**AMCS 476 SELECTED TOPICS IN AFRICAN AMERICAN STUDIES (4)**

Subjects will vary by semester, but this course will concentrate on topics and periods in African American History. Students will be required to do a research project in this course. Students will also be asked to review primary documents in African American history. Topics subject to change. May be repeated for credit with instructor's permission.

**AMCS 477 SELECTED TOPICS IN ASIAN AMERICAN STUDIES (4)**

A course designed to explore areas of contemporary, historical, or artistic concern as they affect the Asian American experience. Advanced studies and/or research projects will be discussed and analyzed. Subject matter will vary. Topics subject to change. May be repeated for credit with instructor's permission.

**AMCS 480 RESEARCH AND METHODOLOGY (4)**

Survey of research and methodological tools used in the study of American ethnic groups. Special attention is given to the problems of objectivity and bias and the political and moral implications of quantitative and field research. This course satisfies one of the core requirements of the AMCS major.

**AMCS 481 SPECIAL TOPICS (1-4)**

Please refer to current Schedule of Classes.

**AMCS 485 SENIOR SEMINAR (4)**

Directed studies in a seminar setting on a particular topic or theme. Combines secondary reading and original research leading to the completion of a research project. Please see Schedule of Classes for the topic selected by the instructor.

**AMCS 487 SENIOR THESIS (4)**

Students in the major, with faculty supervision, may elect to write a thesis in order to qualify for graduation with distinction in American Multicultural Studies. Prerequisite: AMCS 480.

**AMCS 495 SPECIAL STUDIES (1-4)**

Independent study. Prerequisite: AMCS 210 or 255; a core upper-division course; approval of supervising faculty member and approval of department chair.

**AMCS 499 SERVICE LEARNING INTERNSHIP (1-4)**

Course provides students with practical experience in various ethnic community organizations and in health/social service/educational settings. Includes recreation programs, tutoring programs, day care centers, cultural arts organizations, civic promotion organizations, etc.

## **Anthropology (ANTH)**

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### **ANTH 200 INTRODUCTION TO LINGUISTIC ANTHROPOLOGY (3)**

This course is an introduction to the anthropological study of language. Topics covered in this course include a survey of core topics in linguistics (e.g., phonetics, morphology, syntax and semantics) and the relationship of language to social, cultural, and psychological factors. This course may include discussion of nonverbal communication, evolution of language abilities, and historical linguistics. This course highlights linkages among linguistic anthropology and the other subfields of anthropology.

### **ANTH 201 INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY (3)**

This course is an introduction to the evolutionary biology of human and nonhuman primates. The course focuses on evolutionary perspectives on form and function, behavior, population and social structure to reconstruct human evolution and explain human adaptations. Satisfies GE, category B2 (Biological Sciences).

### **ANTH 202 INTRODUCTION TO ARCHAEOLOGY (3)**

An introduction to archaeology as a method of inquiry, the course seeks to answer the question "How do archaeologists know what they know?" Topics include history of archaeology, field and laboratory methods, relationship between method and theory, and "scientific" and humanistic approaches to the interpretation of data.

### **ANTH 203 INTRODUCTION TO CULTURAL ANTHROPOLOGY (3)**

Examination of the anthropological approach to the study of human behavior. Exploration of human dependence on learned, socially transmitted behavior through consideration of ways of life in a broad range of societies. Satisfies GE, category D1 (Individual and Society).

### **ANTH 300 NATURE, CULTURE, AND THEORY: THE GROWTH OF ANTHROPOLOGY (4)**

The nature of science, disciplinary inquiry, and the changing intellectual, institutional and material context of the development of anthropology in the modern world. Identification of significant issues, schools of thought and historic persons. Training in scholarly procedure, library research, bibliography, and professional format and style. Prerequisites: At least one of the following: ANTH 201, 202, 203, or consent of instructor. (ANTH 342 recommended.)

### **ANTH 301 HUMAN FOSSILS AND EVOLUTION (4)**

This course reviews the fossil evidence for human evolution in Africa, Asia, and Europe during the Pliocene-Pleistocene epochs. The fossil evidence is treated in temporal, geological, and geographic contexts. The primary focus is on the evolutionary implications of the fossil evidence for understanding the evolution of human morphology and behavior. Implications for the emergence of modern human races are also considered. Prerequisites: completion of general education area B2 and upper-division standing, or consent of instructor.

### **ANTH 302 BIOLOGICAL BASIS OF SEX DIFFERENCES (4)**

An examination of the current theoretical frameworks for explaining the evolution of sex differences in humans. Issues addressed will include: evolution of behavior, sex differences in morphology and behavior, ecological basis of sex differences in hominin evolution. Prerequisite: completion of general education area B2 and upper-division standing, or consent of instructor.

### **ANTH 305 TOPICS IN BIOLOGICAL ANTHROPOLOGY (4)**

In depth examination of a specific topic within biological anthropology. Topics vary with each offering and might include: history of biological anthropology, human behavioral ecology, human osteology, human variation, bioarchaeology, evolution of human and/or primate social behavior. May be repeated for credit with permission of chair if topic differs. Prerequisites: completion of general education area B2 and upper-division standing, or consent of instructor.

### **ANTH 318 HUMAN DEVELOPMENT: SEX AND THE LIFE CYCLE (3)**

An examination of developmental and evolutionary aspects of human reproductive biology and behavior from fetal through adult stages. Sexual selection and life history perspectives on fetal sex differentiation, gender identity, sex role development, puberty and secondary sexual characteristics, and mate choice. Satisfies GE, category E (The Integrated Person). Prerequisite: completion of GE area B2 and open to juniors, seniors and graduate students only. Cross-listed as HD 318.

### **ANTH 322 HISTORICAL ARCHAEOLOGY (4)**

Introduction to the history, methods and issues of the field of historical archaeology. Extensive readings provide examples of archaeology from post-1300s contexts in North America, Africa, Australia and Latin America. Topics covered range from archaeological approaches to ethnic, gender and class diversity to the study of large-scale processes of colonialism, industrialism and global expansion. Broader issues discussed include the relationships between history and anthropology, the cross-cultural impact of European expansion, and the development of contemporary industrial societies. Prerequisite: upper-division standing or consent of instructor.

### **ANTH 325 WORLD PREHISTORY (4)**

A global survey of the human past from the earliest evidence of tool use to the emergence of stratified urban societies. Emphasis is on the complex diversity of past lifeways, including the reconstruction of human social and material life, the development of different social systems, and connections between societies and their physical environment. Limited discussion of relevant archaeological methods of reconstruction and analysis. Prerequisite: upper-division standing or consent of instructor.

### **ANTH 326 TOPICS IN ARCHAEOLOGY (4)**

Topics vary with each offering; may be repeated for credit with permission of chair. Possible topics might include: environmental adaptation in foraging groups, Holocene transition studies, early food production, emergent cultural complexity, technological innovation and change, regional studies, materials analysis, and geoarchaeology. Prerequisite: upper-division standing or consent of instructor.

### **ANTH 327 ARCHAEOLOGY OF NORTH AMERICA (4)**

This course is a broad survey of the regions, periods, and issues relevant to the study of the North American archaeological record. Topics range from the human settlement of the hemisphere, and the many diverse cultural histories of the continent, through the development of key cultural components such as trade and exchange networks, food production systems, and urban societies, to the increasing impact of cultural resource legislation and the views and interests of modern indigenous populations on contemporary archaeological practice. Prerequisites: upper-division standing or consent of instructor.

**ANTH 340 LIVING IN OUR GLOBALIZED WORLD (3)**

This course explores differences in human cultures primarily as highlighted through cultural interactions. Focus is on learning to perceive how cultural differences influence the dynamics of human interactions and relationships at the level of the individual, the community, the nation and the world. This will contribute to an understanding of the processes and patterns shaping our lives allowing students to develop the skills and perspectives necessary to live in the global community. Not applicable to the Cultural Analysis and Theory core requirement for the anthropology major. Satisfies upper-division GE, category E (The Integrated Person). Prerequisite: upper-division standing or consent of instructor.

**ANTH 341 EMERGENCE OF CIVILIZATIONS (3)**

A presentation of theory and data related to the development and characteristic features of civilization. Such crucial issues as the domestication of plants and animals, the appearance of stratified societies, the emergence of urban life, the emergence of literacy and its implications for thought, and the emergence of the state will be addressed from a comparative perspective. The course takes a global approach to these topics, covering materials from Southwest Asia, Africa, the Mediterranean, and North, Central and South America. Not applicable to the Archaeology subfield requirement for the anthropology major. Satisfies upper-division GE, category D2 (World History and Civilization). Prerequisite: upper-division standing or consent of instructor.

**ANTH 342 ORGANIZATION OF SOCIETIES (4)**

Intensive in-class discussions of accounts from several societies, past and present. Discussions will address key issues in cultural analysis (e.g., status, kinship, gender and identity, symbolism) by means of cross-cultural comparison and a holistic examination of culture. Students are encouraged to think critically and interpretively about the organization and cultural practices of the societies under review. Prerequisites: ANTH 203 and upper-division standing or consent of instructor.

**ANTH 345 NATURE AND SOCIETY: TOPICS IN ANTHROPOLOGY AND THE ENVIRONMENT (4)**

Using the methods of anthropology this course will focus on the study of environmental issues. The course will cover the history of anthropological approaches to the environment. Selected topics such as human ecology, historical ecology, natural resource management, environmental justice, and environmentalism will be announced in the semester schedule. May be repeated for credit.

**ANTH 352 GLOBAL ISSUES (4)**

This course will explore anthropological perspectives on global issues. The course will include a brief introduction to the theoretical frameworks developed in the discipline for studying issues that impact humanity on a global scale. Possible topics may include: globalization, global capitalism, global climate change, international development, population movements such as international migration and diasporas, global impacts of diseases such as HIV/AIDS and SARS. Topics will vary with each offering; may be repeated for credit with consent of instructor. Prerequisites: upper-division standing or consent of instructor.

**ANTH 354 QUEST FOR THE OTHER: TOURISM AND CULTURE (4)**

Examines the nature of tourism as a social and economic force. Different forms of tourism (eco, ethnic, heritage, mass, elite, etc.) will be assessed both in terms of impacts on host cultures and their environments as well as tourists themselves. Case studies illustrate the positive and negative impacts of tourism as an agent of culture change. Prerequisite: upper-division standing or consent of instructor.

**ANTH 358 TOPICS IN SOCIOCULTURAL ANTHROPOLOGY (4)**

In-depth examination of a specific topic within sociocultural anthropology. Topics vary with each offering and might include: medical anthropology, economic anthropology, political anthropology or issues such as homelessness, social capital, or community. May be repeated for credit if topics vary. Prerequisites: ANTH 203 or ANTH 340 or consent of instructor, and upper-division standing.

**ANTH 380 LANGUAGE, CULTURE, AND SOCIETY (4)**

A survey of basic issues concerning language as a part of human behavior; the symbolic nature of human communication; language as an interpretive model for culture; the social nature of language; the psychobiological bases of language and its acquisition; human and nonhuman communicative behavior; verbal and nonverbal communication. Prerequisite: upper division standing and ANTH 200 or ANTH 203, or consent of instructor.

**ANTH 382 LANGUAGE CHANGE (4)**

Survey of the distribution of the world's languages and language families, with discussion of language evolution, and areal, genetic, and typological classifications of languages. Study of the languages in contact and the processes of language change, with attention given to the history of writing systems and to writing as a source of evidence for the reconstruction of linguistic change. Prerequisite: ANTH 200 or 203 and upper division standing, or consent of instructor.

**ANTH 383 LANGUAGE IN SOCIOPOLITICAL CONTEXT (4)**

Focus on such topics as language attitudes, political power and linguistic equality, language and sociopolitical institutions, and language planning. Practical introduction to the insights offered by discourse analysis to the study of language varieties reflected in particular geographical regions, and by members of particular social classes/groups. Prerequisite: upper-division standing or consent of instructor. Cross-listed with LING 432.

**ANTH 384 TOPICS IN LINGUISTIC ANTHROPOLOGY (3-4)**

Topics may include: language acquisition, ideology, policy, revitalization, evolution, creolization and language contact, semantics & pragmatics, sociolinguistics. Topics vary with each offering; may be repeated for credit. Prerequisite: senior standing or consent of instructor.

**ANTH 386 SIGN LANGUAGES AND SIGNING COMMUNITIES (4)**

Focus is on sign languages used in Deaf communities around the world; with an emphasis on three themes: (a) language as a system, (b) language in cultural and social context, and (c) language relationships in space and time. No previous knowledge of sign language is required. Prerequisites: ANTH 200 or ENGL 203, and upper division standing, or consent of instructor.

**ANTH 392 RESEARCH IN CALIFORNIA PREHISTORY (4)**

A seminar offering an introduction and review of a specific topic in California prehistory, emphasizing method and theory. Specific topics - such as regional culture history, subsistence and settlement, trade and exchange, prehistoric technology and osteology - will be announced in the semester schedule. May be repeated for credit. Prerequisite: upper-division standing or consent of instructor.

**ANTH 395 COMMUNITY INVOLVEMENT PROGRAM (1-3)**

An experience involving the application of anthropological method and theory to community service work. Requirements: Approval of a project of anthropological relevance, a minimum of 30 hours per unit of credit in the actual working situation, regular consultation with a faculty sponsor, and a paper to be determined by the student and faculty member in charge. Prerequisites: major status, upper-division standing and consent of instructor.

**ANTH 396 EXPERIMENTAL COURSES (1-3)****ANTH 399 STUDENT INITIATED COURSE (1-3)**

Student-initiated and -instructed courses on topics that enrich or extend current departmental offerings. Cr/NC only.

**ANTH 400 ANTHROPOLOGY TEACHING PRAXIS (1-3)**

Supervision and assessment of curriculum development, course assessment as applicable to students in instructional or faculty-adjunct roles. May be repeated once for credit. Instructor consent required.

**ANTH 412 HUMAN OSTEOLOGY (4)**

Combined lecture/laboratory course on the anatomy and biology of the human skeleton. Students learn to identify the bones and teeth of the human skeleton; the landmarks used for osteological analyses; and how morphological and metric analyses of bones and teeth can reconstruct personal biographies and population histories. Prerequisites: ANTH 201 (or BIOL 115 for non-majors), or consent of instructor and upper-division standing.

**ANTH 414 PRIMATE BEHAVIOR LABORATORY (4)**

Combined lecture/laboratory course for students interested in studying primate behavior. Course will include an in-depth survey of the primates, emphasizing one or more of the following topics: socioecology, social organization, behavioral ecology, evolution of primate behavior. Students will also learn methods used in studying, describing and analyzing primate behavior. Laboratory consists of direct observations of local fauna and captive primates at Bay Area zoos. Prerequisites: completion of general education area B2 and upper-division standing, or consent of instructor.

**ANTH 415 FORENSIC ANTHROPOLOGY METHODS (4)**

Combined lecture/laboratory course for students interested in the principles and techniques used in the application of forensic anthropology. Topics covered in this course include estimating time since death, determining age, sex, stature and ancestry, and identifying the effects of trauma and pathology on bones. Examination of forensic anthropology case studies. Prerequisite: completion of general education area B2 and upper-division standing, or consent of instructor.

**ANTH 420 ARCHAEOLOGY METHODS: LECTURE (3)**

Basic methods of archaeological reconnaissance, excavation and laboratory analysis. Class time is divided between lecture/discussions, survey and excavation on local archaeological sites, and processing and analyzing excavated collections of artifacts. Prerequisite: concurrent enrollment in ANTH 421 or upper-division standing.

**ANTH 421 ARCHAEOLOGY METHODS: LABORATORY (1)**

Prerequisite: concurrent enrollment in ANTH 420.

**ANTH 424 MESOAMERICAN ARCHAEOLOGY FIELD SCHOOL (4)**

A field school designed to introduce undergraduate students to archaeological fieldwork in the Maya lowlands of Belize. The project has a regional focus with a principal objective of studying the changes in settlement patterns and site relationships over time. Specific site focus and particular techniques taught may change from season to season. The curriculum focuses on instruction in archaeological field practice including excavation, data recording, artifact processing and mapping. May be repeated for credit.

**ANTH 444 MATERIAL CULTURE STUDIES (4)**

An interdisciplinary examination of the objects, structures, technologies, and built environments people create and use, and the cultural significance of these materials. Students will compare theoretical and methodological approaches from a range of disciplines, including anthropology, archaeology, folklore and folklife studies, art history and decorative arts, vernacular architecture and cultural landscape studies, museum studies, and the history of technology. They will learn methods in material culture studies from across a number of fields that have developed techniques for identifying, recording and analyzing a wide range of material culture categories. Specific topical emphases and methodological training will vary across semester offerings.

**ANTH 451 APPLIED ETHNOGRAPHIC METHODS (4)**

This is an applied research course designed to link theory, field research, data collection and service learning in the local community. This will include research design, data collection and analysis, and final report preparation and presentation. Other topics covered include historic overview of the development of applied anthropology, the uses and roles of anthropology outside academia, survey of professional practice including ethical considerations, state of the job market, techniques for career preparation, and issues of generalization vs. specialization. Prerequisite: ANTH 201 or 203 and upper-division or consent of instructor.

**ANTH 454 ETHNOGRAPHIC FIELD SCHOOL (4)**

A field school designed to help student develop their ethnographic field work skills, especially rapid appraisal techniques in an applied setting. Students will learn how to design and carry out a research project utilizing such skills as participant observation, interviewing, data analysis. Students will be required to write a report based on their research and experiences. Contact department for more information. May be repeated for credit. Prerequisite: upper-division standing or consent of instructor.

**ANTH 480 STUDIES OF LANGUAGE USE (4)**

Application of methods and procedures used in the investigation of communication in natural contexts. Topics include research ethics, problem formation, research design, basic data gathering techniques and strategies (with an emphasis on linguistic approaches), quantitative and qualitative data analysis and report writing. May be repeated once for credit. Prerequisites: ANTH 203 or equivalent, and upper-division standing, or consent of instructor.

**ANTH 480 STUDIES OF LANGUAGE USE (4)**

Application of methods and procedures used in the investigation of communication in natural contexts. Topics include research ethics, problem formation, research design, basic data gathering techniques and strategies (with an emphasis on linguistic approaches), quantitative and qualitative data analysis and report writing. May be repeated once for credit. Prerequisites: ANTH 203 or equivalent, and upper-division standing, or consent of instructor.

**ANTH 490 TOPICAL SEMINAR IN ANTHROPOLOGY (1-4)**

May be repeated for credit if topic differs. Prerequisite: upper-division standing or consent of instructor.

**ANTH 491 SENIOR SEMINAR (1)**

The focus of the seminar may vary, but the class will comprehensively address the four goals of the anthropology major--comparative perspective, four-field coverage, integration of the four field approach and ethical awareness--through discussion of areas of special interest to the department faculty. Project and activities will be designed that will require students to demonstrate their mastery of curricular goals as outlined in the department's assessment program. Majors are strongly encouraged to enroll during their final spring semester prior to graduation. Prerequisites: senior standing or consent of instructor.

**ANTH 495 SPECIAL STUDIES (1-4)**

During the first week of the semester, students interested in special studies in anthropology must submit a written proposal and an outline of projected work to a faculty sponsor for approval. Each unit of credit requires a minimum of 45 hours of work per semester (3 hours per unit per week), including regular consultation with an evaluation by the faculty member in charge. Prerequisite: ANTH 201 or 203; or an appropriate upper-division course in anthropology; or an upper-division course relevant to the proposed topic from another discipline.

**ANTH 496 AGENCY INTERNSHIPS (1-3)**

Students in the internship program have an opportunity to apply anthropological theory and methods to a variety of situations in public and private agencies. Internships require faculty approval, a minimum of 45 hours of work per unit per semester, including regular consultation with the faculty sponsor. This internship is usually overseen by supervisors in off-campus agencies who report to faculty supervisors. Cr/NC only. May be repeated for credit. Prerequisite: upper-division standing or consent of instructor.

**ANTH 496A INTERNSHIP IN ARCHAEOLOGY (2-3)**

Students will team with staff of SSU's Anthropological Studies Center to perform, for example, pre-field research, recognize and record archaeological sites, use GPS equipment, make computer-generated maps, and complete State record forms. Activities will vary depending on available projects. Internships require a minimum of 45 hours of work per semester/unit, including regular consultation with faculty sponsor. Cr/NC only. Prerequisite: Consent of instructor.

**ANTH 497 ANTHROPOLOGY INTERNSHIPS (1-3)**

Students in the internship program have an opportunity to apply anthropological theory and methods to a variety of situations in public and private agencies. Internships require faculty approval, a minimum of 45 hours of work per unit per semester, including regular consultation with and evaluation by the faculty sponsor. Cr/NC only. May be repeated for credit. Prerequisite: upper-division standing or consent of instructor.

**ANTH 500 PROSEMINAR (4)**

Introduction to research methodology in the social sciences; research design and implementation; use of library and archival materials; editorial review of writing; and guide to preparation of professional anthropological papers. Prerequisite: admission into Cultural Resources Management Program or consent of instructor.

**ANTH 502 ARCHAEOLOGY: HISTORY AND THEORY (3)**

The rise of theoretical archaeology, with emphasis on the range of theoretical approaches taken by archaeologists and the nature of archaeological problem solving in theory and practice. Prerequisite: graduate status or consent of instructor.

**ANTH 503 SEMINAR: CULTURAL RESOURCES MANAGEMENT (3)**

Who owns the past and who has the right to manage it? Review of federal, state, and local legislation pertinent to the inventory, evaluation, and treatment of archaeological sites, historic buildings, and places that are important to Native Americans and others. Emphasis is placed on process of evaluation according to legal guidelines including, CEQA, the Section 106 Process, and the National Register of Historic Places. Prerequisite: graduate standing or consent of instructor.

**ANTH 554 FIELD SCHOOL IN CULTURAL HERITAGE MANAGEMENT (4)**

A field school designed to introduce graduate students to fieldwork in cultural heritage management. Students will learn how to design and carry out a research project utilizing skills appropriate to the specific focus of their project. Students will be required to write a report based on their research and experiences. Contact department for more information. May be repeated for credit. Prerequisite: graduate status or consent of instructor.

**ANTH 578 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. Cr/NC only.

**ANTH 590 ADVANCED SEMINARS IN ANTHROPOLOGY (1-3)**

In-depth consideration of specific anthropological, applied anthropology or anthropologically related topics. Topics will vary from semester to semester. Prerequisite: graduate standing or consent of instructor.

**ANTH 592 PRACTICUM IN NATIONAL REGISTER OF HISTORIC PLACES (2)**

This hands-on course will introduce students to the process by which historic buildings are recorded and evaluated for eligibility to the NRHP. Classes will cover basic wood-frame construction techniques, basic architectural description, and how to undertake focused historical research in official records. Students will learn to identify and describe a historic building, document it using photographs, plans, and detailed drawings, and reconstruct its history. Prerequisite: graduate standing or consent of instructor.

**ANTH 595 SPECIAL STUDIES (1-4)**

During the first week of the semester students interested in special studies in anthropology must submit a written proposal and an outline of projected work to a faculty sponsor for approval. Each unit of credit requires a minimum of 45 hours of work per semester, which includes regular consultation with and evaluation by the faculty member in charge. Prerequisites: graduate standing and consent of supervising instructor and department chair.

**ANTH 596 AGENCY INTERNSHIPS (1-3)**

Students will have an opportunity to apply anthropological theory and methods and/or cultural resources management procedures as interns with public and private agencies. Internships require faculty approval, a minimum of 45 hours of work per unit per semester, including regular consultation with the faculty sponsor. This internship is usually overseen by supervisors in off-campus agencies who report to faculty supervisors. Cr/NC only. May be repeated for credit.

**ANTH 596A INTERNSHIP IN ARCHAEOLOGY (2-3)**

Students will team with staff of SSU's Anthropological Studies Center to perform, for example, pre-field research, recognize and record archaeological sites, use GPS equipment, make computer-generated maps, and complete state record forms. Activities will vary depending on available projects. Internships require a minimum of 45 hours of work per semester/unit, including regular consultation with faculty sponsor. Cr/NC only. Prerequisite: graduate standing and consent of instructor.

**ANTH 596B INTERNSHIP IN CULTURAL RESOURCES MANAGEMENT (2-3)**

Students will team with staff of SSU's Anthropological Studies Center to get intensive, hands-on experience in carrying out CRM projects, including: responding to requests for proposals, assessing the legal context of their work, budgeting, field logistics, cultural resources inventory, mapping, and report writing. Internships require a minimum of 45 hours of work per semester/unit, including regular consultation with faculty sponsor. Cr/NC only. Prerequisite: graduate standing and consent of instructor.

### **ANTH 596C INTERNSHIP IN INFORMATION MANAGEMENT (2-3)**

Students will team with staff of the Northwest Information Center to get intensive instruction in and experience with a variety of archival and research-based information, and a range of data management techniques relevant to current practices in cultural resources management and historic preservation in the regulatory context. Internships require a minimum of 45 hours of work per semester/unit, including regular consultation with faculty sponsor. Cr/NC only. Prerequisite: graduate standing and consent of instructor.

### **ANTH 597 ANTHROPOLOGY INTERNSHIPS (1-3)**

Students will have an opportunity to apply anthropological theory and methods and/or cultural resources management procedures as interns with public and private agencies. Internships require faculty approval, a minimum of 45 hours of work per unit per semester, including regular consultation with and evaluation by the faculty sponsor. Cr/NC only. May be repeated for credit. Prerequisite: graduate standing and consent of instructor.

### **ANTH 598 TEACHING ASSISTANT IN ANTHROPOLOGY (1-3)**

Provides experience by assisting the instructor in an anthropology course. Open only to advanced students for specific anthropology courses approved by the department. Prerequisites: graduate standing and consent of instructor.

### **ANTH 599A THESIS (2-3)**

Planning and execution of a research program culminating in the completion of a thesis (4 units maximum for 599A plus B). Prerequisite: filing an Advancement to Candidacy form, which requires completion of a thesis prospectus in Special Studies 595 (1) and formation of student's Graduate Committee.

### **ANTH 599B THESIS (2-3)**

Planning and execution of a research program culminating in the completion of a thesis (4 units maximum for 599A plus B). Prerequisite: filing an Advancement to Candidacy form, which requires completion of a thesis prospectus in Special Studies 595 (1) and formation of student's Graduate Committee.

## **Art History (ARTH)**

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### **ARTH 199 STUDENT-INSTRUCTED COURSE (1-4)**

Please see current Schedule of Classes for details.

### **ARTH 200 INFORMATION RESOURCES AND SKILLS FOR ART HISTORY (1-2)**

Techniques for finding library and information resources in visual culture and art history. Covers the use and strategies for accessing information and images in the university library and incorporating that visual imagery into research projects using computer applications. Students will learn about facilities available and how to access, retrieve and evaluate information. Teaching includes lectures, demonstrations and online research for both electronic and print sources. Students will gain experience with software packages such as Pagemaker and Photoshop using the graphics lab in the art department.

### **ARTH 210 INTRODUCTION TO ART HISTORY (3-4)**

A survey course covering painting, sculpture and architecture of prehistoric and primitive cultures, and ancient, classical and medieval civilizations. Satisfies GE, category C1 (Fine Arts).

### **ARTH 211 INTRODUCTION TO ART HISTORY (3-4)**

A survey course covering painting, sculpture and architecture from the Renaissance to the present with a global perspective. Satisfies GE, category C1 (Fine Arts).

### **ARTH 212A INTRODUCTION TO WORLD FILM HISTORY A (3)**

Lecture, 2 hours; films, 2 hours. A chronological survey of historically representative and significant films tracing the evolution of the cinema as an art form. Includes study of the primitive period, the emergence of the feature film in America, Europe and Japan, the advent of sound, the "great studio era," and alternative cinemas of the 1930s and 1940s. Satisfies GE, category C1 (History of the Fine Arts).

### **ARTH 212B INTRODUCTION TO WORLD FILM HISTORY B (3)**

Lecture, 2 hours; films, 2 hours. A chronological survey of historically representative and significant films tracing the evolution of the cinema as an art form. Includes study of post-war movements such as Neorealism and the French New Wave, cinematic modernism, the post-war film in Asia, and the emergence of new cinemas in the Third World and Eastern Europe. Satisfies GE, category C1 (Fine Arts).

### **ARTH 270A SURVEY OF SOUTH AND SOUTHEAST ASIAN ART (3-4)**

A general survey of the arts and cultures of South and Southeast Asia, including India, Thailand, Indonesia, Cambodia and Myanmar, from prehistoric periods to the present. Satisfies GE, category C1 (Fine Arts).

### **ARTH 270B SURVEY OF CHINESE, JAPANESE, AND ASIAN ART (3-4)**

A general survey of the arts and cultures of China and Japan from prehistoric periods to the present. Satisfies GE, category C1 (Fine Arts).

### **ARTH 300 GRADED ASSISTANCE PROJECTS (1-4)**

Designed for advanced students to gain practical experience in the functions of art studios, workshops, classroom, visual resources management, or exhibition projects. Work under supervision of faculty or staff. Each unit requires 3 hours of work per week. Grade only. (See also ARTH 499.)

**ARTH 301 ASSISTANCE PROJECTS (1-4)**

Designed for advanced students to gain practical experience in the functions of art studios, workshops, classrooms or exhibition projects. Work under supervision of faculty or staff. Each unit requires 3 hours of work per week. Cr/NC only.

**ARTH 312 PRINCIPLES OF ARTS MANAGEMENT (3)**

May be offered every three or four semesters. A seminar surveying the management of nonprofit visual arts institutions in the United States and the role of those institutions within society. Topics range from practical information, such as the structure of nonprofit organizations, the role of a board of trustees, fundraising, financial management, marketing, and the growing use of technology in the arts, to theoretical concepts being discussed within the field. Guest lecturers will be featured on a regular basis, and several field trips will be scheduled.

**ARTH 361 CLASSIC NARRATIVE FILM (3)**

Theory and analysis of classic Hollywood film. Emphasizes the evolution of the narrative systems, the art of editing, the history of American genre film making, the problematic notion of the auteur, and the place of the spectator in the classic fiction film.

**ARTH 363 OTHER CINEMAS (3)**

Alternative film practices (i.e., outside the classic Hollywood model). Each semester's course is organized around a movement, a theme or a critical problem and includes the study of Western and non-Western films. May be repeated for credit toward the minor.

**ARTH 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

Student-directed creative activities in behalf of nearby off-campus community agencies. One to 4 units of credit, based on 30 hours of contributed effort per unit per semester. Art education assistance and selected private enterprises. Six CIP units may be applied toward a degree. Prerequisite: prearranged program with community host-sponsor and consent of instructor and the department chair.

**ARTH 399 STUDENT INSTRUCTED COURSE (1-4)**

Please see current Schedule of Classes for details.

**ARTH 400 ART HISTORY INFORMATION RESOURCE AND RESEARCH SKILLS (2)**

Course for upper-division majors researching information for their senior thesis projects. Covers the use and evaluation of methods for finding technology and appropriate software. Prerequisite: upper division art history standing or a related major and concurrent enrollment or completion of ARTH 490H.

**ARTH 420 PRE-CLASSICAL ART (3-4)**

Seminar/survey course covering the history of the arts and architecture of Egypt, Crete and the Near East before the conquests of Alexander the Great.

**ARTH 422 GREEK ART (3-4)**

A seminar/survey course covering the history of Greek art and architecture from the Proto-geometric through the Hellenistic periods (ca. 1000 BC-100 AD).

**ARTH 424 ROMAN ART (3-4)**

A seminar/survey course covering Etruscan and Roman art and architecture from the early Republic through the age of Constantine, 4th Century, C.E.

**ARTH 430 EARLY CHRISTIAN, BYZANTINE AND EARLY MEDIEVAL ART (3-4)**

A seminar/survey course covering Christian art from its origins in the Third Century through the fall of Constantinople in the East and the rise of the Romanesque in the West (ca. 1050). Content emphasis may vary.

**ARTH 432 ROMANESQUE AND GOTHIC ART (3-4)**

A seminar/survey course covering Medieval art and architecture of the Romanesque and the Early and High Gothic periods. Content emphasis may vary.

**ARTH 432 ROMANESQUE AND GOTHIC ART (3-4)**

A seminar/survey course covering Medieval art and architecture of the Romanesque and the Early and High Gothic periods. Content emphasis may vary.

**ARTH 440 EARLY ITALIAN RENAISSANCE ART (3-4)**

Seminar/survey course covering painting, sculpture and architecture in Italy in the 14th and 15th centuries.

**ARTH 442 LATER ITALIAN RENAISSANCE ART (3-4)**

Seminar/survey course covering painting, sculpture and architecture of Italy in the 16th century. Includes High Renaissance and Mannerist periods.

**ARTH 444 NORTHERN RENAISSANCE ART (3-4)**

A seminar/lecture course covering painting, printmaking, sculpture and architecture of the 14th-16th centuries in Europe, apart from Italy.

**ARTH 450 BAROQUE ART (3)**

A seminar/survey course on Italian and/or Northern European painting, architecture and sculpture of the 17th century. Content emphasis may vary. May be repeated with consent of instructor.

**ARTH 452 EIGHTEENTH CENTURY ART (3-4)**

A seminar/survey course on 18th Century painting, architecture, and sculpture. Content emphasis may vary.

**ARTH 454 NINETEENTH CENTURY ART (3-4)**

A culturally diverse survey of painting and sculpture in Europe, which may include non-Western traditions, ca. 1780 through the end of the 19th century. Satisfies upper-division GE, category C1 (Fine Arts). Prerequisite: HUM 200 or ENGL 101.

**ARTH 456 THE HISTORY OF PHOTOGRAPHY (3-4)**

A survey course examining photographers and their work from the beginning of the art form to the present day. Content emphasis may vary.

**ARTH 460 HISTORY OF AMERICAN ART (3-4)**

A survey of the American experience from pre-Colonial times to the present, with insights into European, non-Western, and native influences. Satisfies upper-division GE, category C1 (History of the Fine Arts). Prerequisite: HUM 200 or ENGL 201.

**ARTH 461 SELECTED TOPICS IN FILM (3)**

A genre, the work of a single filmmaker, a cinematic movement, a national cinema, a focused study of a problem in film history or aesthetics, etc. May be repeated for credit toward the minor.

**ARTH 464 HISTORY OF MODERN ART-20TH CENTURY (3-4)**

A survey of art of the Western world in the 20th century to the end of World War II, including non-Western and native influences. Satisfies upper-division GE, category C1 (Fine Arts). Prerequisite: HUM 200 or ENGL 101.

**ARTH 465 MODERN ART FROM 1945 TO 1979 (3-4)**

A survey of American and European developments in late modern and early post-modern art, focusing on work made between 1945 and 1979. Movements such as Abstract Expressionism, Pop, Minimalism, Photo-Realism, Earth Art, and Feminist Art will be discussed in depth, and artists working outside New York will also be considered. Satisfies upper-division GE, category C1 (Fine Arts). Prerequisite: HUM 200 or ENGL 101.

**ARTH 466 CONTEMPORARY ART (3-4)**

A survey of Western and international developments in postmodern and current art. The course will examine some of the artists and movements that were recognized in the 1980s, such as Neo-Expressionism, Appropriation, Graffiti Art, Neo-Geo, Image-Text, and Video/Computer art. In addition to a chronological overview, current issues and theories necessary for a thorough understanding of contemporary art and artists will be explored. Readings and written papers on designated topics will be required. Prerequisite: ARTH 465.

**ARTH 470A SOUTH AND SOUTHEAST ASIAN ART (3-4)**

A seminar/survey course examining in depth the arts of South and Southeast Asia, including India, Thailand, Indonesia, Cambodia and Myanmar, from their beginnings to the present. Emphasis on sculpture and painting. Content emphases may vary. May be repeated with consent of instructor.

**ARTH 470B CHINESE AND JAPANESE ASIAN ART (3-4)**

A seminar/survey course examining in depth the arts of China and Japan from their beginnings to the present. Emphasis on sculpture and painting. Content emphases may vary. May be repeated with consent of instructor.

**ARTH 474 ISLAMIC ART (3-4)**

Course explores the formation, establishment and variations of Islamic artistic culture from its beginnings in the 7th century through the apogee of the Ottoman (Turkish) Empire in the 16th and 17th centuries.

**ARTH 476 BEYOND EUROPEAN TRAD: SELECTED TOPICS (3-4)**

A seminar/survey course whose emphasis may include the art of Africa, Native America, Hispanic, Latin America and/or other indigenous cultures.

**ARTH 480 SELECTED TOPICS IN ART HISTORY (1-4)**

A seminar/lecture course dealing with intensive study of a particular art topic. The topic will vary from semester to semester. The course may be repeated and may be applicable to requirements for a major in art. Consult advisor and department chair. Prerequisites: major status, advanced standing and consent of instructor.

**ARTH 490F THEORY AND METHODS OF FILM CRITICISM (3)**

A senior-level seminar course that allows students to develop their critical expertise and plan an original piece of research and interpretation, to be presented as the senior paper.

**ARTH 490H PRO-SEMINAR IN ART HIST METHOD (3-4)**

A seminar concentrating on the discipline and philosophy of art historical studies. Emphasis will be placed on formal and stylistic problems, research techniques, and appropriate new research technology. Readings designed to stress the variety of relevant approaches possible to a given problem. May be offered only once every two years. Prerequisite for nonmajors: consent of instructor: students must have completed two Art History papers in upper division courses to be admitted.

**ARTH 491F SENIOR THESIS IN FILM (1)**

Submission of a scholarly paper to the faculty is required in the senior year. The student works in a tutorial situation with the film historian.

**ARTH 491H SENIOR THESIS IN ART HISTORY (1-2)**

Submission of a scholarly paper to the faculty is required in the senior year. The student works in a tutorial situation with an art historian. Must be taken with two separate advisors.

**ARTH 492 SENIOR HONORS THESIS (1-2)**

The honors student prepares an in-depth research paper under the guidance of members of the art history or film faculty. The student will utilize scholarly resources of the region and produce an original research paper of extended length. Participation by consent of the art history faculty. Must be taken with two separate advisors.

**ARTH 494 GALLERY AND MUSEUM METHODS (3)**

An advanced lecture and activity course in methods and techniques of nonprofit gallery and museum practice. Topics include history and philosophy of museums, their structure and purpose, exhibition development, and a museum's relationship to the public. Current issues such as accountability, management of cultural artifacts, censorship, and funding for the arts will also be discussed. Students participate in various functions of the University Art Gallery including exhibition installation and design, opening receptions, publicity, fundraising events, and administration. Two off-campus field trips will be planned.

**ARTH 495 SPECIAL STUDIES (1-4)**

For upper-division art history and film history majors only. Consult department faculty in your area of emphasis. The university contract form with required signatures of student, instructor, faculty advisor and department chair must be completed before registering for special studies units. Not applicable to the art history major or minor.

**ARTH 496 DIRECTED FIELD RESEARCH EXPERIENCE (1)**

Travel to galleries and museums in various North American cities. Individual and group participation required. Destinations vary; consult semester schedule for specifics. May be repeated and may be applicable to requirements in the major. Fee required at time of registration. Prerequisites: major status and advanced standing or consent of instructor. Cr/NC only.

**ARTH 497 DIRECTED FIELD RESEARCH EXPERIENCE (1)**

Travel to various destinations, which vary depending on type of field research being offered; consult semester schedule for specifics. May be repeated and may be applicable to requirements in the major. Students will be responsible for a field research project(s), based on the trip. Fee required at time of registration. Prerequisites: major status and advanced standing or consent of instructor.

**ARTH 499 INTERNSHIPS (1-4)**

Students in the internship program will have an opportunity to gain practical skills by working in a variety of capacities, including gallery and museum situations in the private and public sectors. Credit will be given for completion of 3 hours of work per week per unit, by prior arrangement with department coordinator. Prerequisite: consent of instructor. A-F and Cr/NC. (See also ARTH 300.)

**ARTH 590H PROSEMINAR IN ART HISTORY METHOD (1-3)**

Course for ITDS graduate and other art related students which will apply research technology to their thesis projects. Offered concurrently with ARTH 490H.

**ARTH 595 SPECIAL STUDIES (1-4)**

Prerequisites: graduate standing and consent of instructor.

**ARTH 599 INTERNSHIP (1-4)**

Graduate students, working through ITDS or related programs, will have an opportunity to gain practical skills by working in a variety of capacities, including gallery and museum situations in private and public sectors. Credit will be given for completion of 3 hours of work per week per unit, by prior arrangement with department coordinator and chair. Prerequisite: consent of instructor. A-F and Cr/NC.

## Art Studio (ARTS)

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### ARTS 101 ART FUNDAMENTALS (3)

Basic design. A studio course in the study of form, color and composition in 2-dimensional art; rendering of 3-dimensional objects from observation using line and values, and principles of perspective. Basic requisite course for studio courses on the 200 level.

### ARTS 102 FUNDAMENTALS OF THREE DIMENSION DESIGN (3)

A studio course introducing the student to the principles of three dimensional design. Sculptural, architectural and design projects are realized through a series of assigned projects exploring form, volume, plane, line and structure. Traditional and non-traditional sculptural materials are used. Prerequisite course for 200 level studio courses. Laboratory fee due at time of registration.

### ARTS 103 SAFETY AND SHOP PRACTICES (1)

An activity course required for new or transfer sculpture students, or for any student wishing to have access to the wood shop or use power and hand tools dispensed from the tool crib. Class is recommended for all students majoring in Art Studio. Required for students in the Sculpture emphasis. Examinations required every semester for continued use of power equipment. Laboratory fee payable at registration.

### ARTS 199 STUDENT INSTRUCTED COURSE (1-4)

Please see current Schedule of Classes for details.

### ARTS 200 PHOTOGRAPHY IN THE WORLD (3-4)

Lecture presenting overview of the role of photography in the world and an introduction to the creation of photographs. Integrates intellectual, analytical, and creative skills and capacities by examining photography from several perspectives. Photography's history, current forms, uses and conventions included. Students will practice photography as a creative communicative endeavor.

### ARTS 202 BEGINNING DRAWING (1-4)

A beginner's studio course in drawing employing a variety of media, including pencil, ink, charcoal, conte, and pastel. Includes a unit on objective drawing.

### ARTS 204 BEGINNING LIFE DRAWING (1-4)

An introductory studio course in drawing from nature, including the human figure. Basic problems in dealing with the figure as subject matter.

### ARTS 208 BASIC BLACK AND WHITE PHOTOGRAPHY (2-4)

A studio introduction to basic photographic processes, including lecture/discussion, reading, lab work and critique. Covers handling the camera; previsualization; history; exposure control; perceiving and working with light; roll film processing; print enlarging and finishing for presentation; balancing technique and individual creativity. Lab fee payable at time of registration.

### ARTS 210 INTRODUCTION TO DIGITAL IMAGING (1-3)

Covers basic digital processes: lecture/discussion, reading, lab work, individual projects, critique. Topics include: fundamental digital theory, hardware/software/technique of 2-D artwork, image acquisition, basic digital photography, image manipulation (Photoshop), vector based design (illustrator), digital output, and overview of strategies/practices of contemporary digital artists. Lab fee required.

### ARTS 220 BEGINNING PAINTING (1-4)

Studio course in painting in a variety of media, with primary concentration in oil. Directed problems. Work from imagination, still life, and the figure. Group and individual criticism. Prerequisite: previous or concurrent enrollment in ARTS 101.

### ARTS 229 BEGINNING CERAMICS (2-4)

A studio course surveying a wide range of ceramic processes, including a variety of hand building techniques, working on potter's wheel, glazing and firing. Directed problems cover both traditional/sculptural aspects of ceramics. Course includes lectures, demonstrations, discussion, critiques and laboratory. Lab fee payable at time of registration. Prerequisite: ARTS 102.

### ARTS 236 BEGINNING SCULPTURE (2-4)

A studio course offering a range of traditional and non-traditional sculptural processes and materials. Introduces the beginning student to welding, woodworking, mold-making and casting. Group critiques, field trips, textbook required. Lab fee due at time of registration. Prerequisites: ARTS 102.

### ARTS 245 BEGINNING PRINTMAKING (2-4)

A studio course introducing the student to a variety of printmaking media, which may include etching, lithography, woodcut, and linocut. Lecture, demonstration, and laboratory work, which may include proofing, printing, and a small edition. Laboratory fee payable at time of registration. Prerequisite: ARTS 101.

### ARTS 298 SELECTED TOPICS IN ART STUDIO (1-4)

A beginning studio course dealing with intensive study of a particular art topic, which may vary from semester to semester. May be repeated, and applicable to requirements for a major in art. Prerequisite: previous or concurrent enrollment in ARTS 101 and 102.

### ARTS 300 GRADED ASSISTANCE PROJECTS (1-4)

Designed for advanced students to gain practical experience in the functions of art studios, workshops, classrooms or exhibition projects. Work under supervision of faculty or staff. Each unit requires 3 hours of work per week. Grade only.

### ARTS 301 ASSISTANCE PROJECTS (1-4)

Designed for advanced students to gain practical experience in the functions of art studios, workshops, classrooms or exhibition projects. Work under supervision of faculty or staff. Each unit requires 3 hours of work per week. Cr/NC only.

### ARTS 302 INTERMEDIATE DRAWING (1-4)

Directed problems in drawing for the intermediate student. Work from both imagination or observational approaches. Prerequisite: ARTS 202 or 204.

### ARTS 304 INTERMEDIATE LIFE DRAWING (1-4)

A workshop in drawing the human figure for students who have fulfilled the beginning drawing prerequisite or are at intermediate skills levels. Group and individually directed special problems related to drawing the live model. Prerequisite: ARTS 204.

### ARTS 308 PHOTOGRAPHIC DARKROOM PROCESSES (2-4)

A process course with individualized development of photographic skills and theory. Concentration on print quality, including zone system. Familiarization with papers, films, and developers. Various processes expanding upon black and white technology and darkroom experimentation. Laboratory fee payable at registration. Prerequisite: ARTS 208 and consent of instructor, based on portfolio review.

### ARTS 310 DIGITAL IMAGING (1-3)

Covers intermediate digital techniques: lecture/discussion, reading, lab work, individual projects, critiques. Topics may include: digital theory, hardware/software techniques of 2D artwork, image manipulation (Photoshop), vector-based design (Illustrator), multimedia design, integration of digital media into traditional practices and overview of strategies/practices of contemporary digital artists. Lab fee required. Prerequisites: ARTS 210.

**ARTS 320 INTERMEDIATE PAINTING (1-4)**

Intermediate-level studio course in painting. Directed and individual problems. Group and individual criticism. May only be repeated by majors. Prerequisite: ArtS 220. Laboratory fee payable at time of registration.

**ARTS 329 INTERMEDIATE CERAMICS (2-4)**

A studio course concentrating on wheel and hand building techniques to explore formal/ functional issues in clay. Emphasis is placed on design issues, content and developing a personal visual vocabulary through individual and group critiques. Laboratory exercises to develop color/texture in glazes and firing techniques are also covered. Lab fee payable at time of registration. Prerequisite: ARTS 229.

**ARTS 335 INTERMEDIATE BRONZE FOUNDRY (2-7)**

In-depth instruction of processes involved in producing bronze sculpture. Students explore all aspects of realizing sculpture in bronze, from clay or plaster molds to wax; various methods of wax working/mold making, including ceramic shell, sand and investment; casting; and patination. Group critiques, fieldtrips. Laboratory fee due at time of registration. Prerequisite: ARTS 236, or consent of instructor. Textbook required.

**ARTS 336 INTERMEDIATE SCULPTURE (1-4)**

A studio course with directed projects. Emphasis on content and developing a personal sculptural vocabulary through experimentation with traditional and non-traditional materials and processes. Group critiques, field trips, short writing assignments. Textbook required. Laboratory fee due at time of registration. Prerequisite: ARTS 236.

**ARTS 340 INTERMEDIATE ETCHING AND WOODCUT (1-4)**

A studio course on the intermediate level in various printmaking aspects, including woodcut, engraving, photo-engraving, monotype, and etching. Laboratory fee payable at time of registration. Prerequisite: ARTS 245.

**ARTS 342 INTERMEDIATE LITHOGRAPHY (1-4)**

Continued studio work at the intermediate level in lithographic methods, including color technology and conceptual development. Lecture, demonstration, and studio work. Laboratory fee payable at time of registration. Prerequisite: ARTS 245.

**ARTS 382 INTERMEDIATE MONOPRINT (1-4)**

An intermediate studio course emphasizing single and multiple images derived from a variety of original sources, including painting, hand-painted prints, collagraphs, chine colle, and multiple manipulated prints. A maximum of 3 upper-division units may be applied toward a printmaking or a painting emphasis. Laboratory fee payable at time of registration. Prerequisite: ARTS 245.

**ARTS 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

Student-directed creative activities in behalf of nearby off-campus community agencies. One to 4 units of credit, based on 30 hours of contributed effort per unit per semester. Art education assistance and selected private enterprises. Six CIP units may be applied toward a degree. Prerequisite: prearranged program with community host-sponsor and consent of instructor.

**ARTS 399 STUDENT INSTRUCTED COURSE (1-4)**

Please see current Schedule of Classes for details.

**ARTS 400 ART IN THE CLASSROOM (3)**

Combined lecture/lab course for teaching credential candidates (K-12). Skills, methods and ideas for introducing art education to children/adolescents will be discussed/practiced, based on the California Framework for Art Education, and intended to stress the necessity of art instruction for the young. Art education history will be covered.

**ARTS 402 ADVANCED DRAWING (1-4)**

Independent work from imagination or nature for the advanced student. Can be arranged as correlative drawing problems done in conjunction with advanced studio projects in area of emphasis. May be repeated for up to a maximum of 12 units. Prerequisite: at least 4 units of ARTS 202 or 204, and 3 units of 300-series drawing courses, or consent of instructor.

**ARTS 404 ADVANCED LIFE DRAWING (2-4)**

An advanced studio life drawing class with directed special problems related to drawing the live model and to drawing from nature. May be repeated for up to a maximum of 12 units. Prerequisite: ARTS 304.

**ARTS 420 ADVANCED PAINTING (2-4)**

Continued studio work in painting in oils and/or acrylics. May be repeated by art majors only for credit up to a maximum of 9 units; more for B.F.A. students. Prerequisite: ARTS 320. Laboratory fee payable at time of registration.

**ARTS 429 ADVANCED CERAMICS (2-4)**

A studio course addressing advanced throwing and hand building, glazing, and firing techniques. Emphasis is placed on content and development of a personal voice in ceramics. Students are encouraged to create individual project plans and work large scale. Prerequisites: ARTS 229, 329. Lab fee payable at time of registration.

**ARTS 430 LARGE SCALE CLAY AND INSTALL CERAMIC SCULPTURE (2-4)**

Course concentrates on large scale ceramics sculpture/installation. Hand building and wheel throwing techniques utilized. Emphasis placed on project planning, content and developing a personal visual vocabulary through individual/group critiques. Lab fee payable at registration. Prerequisite: ARTS 229 and 329 or 330. Can replace one semester of Advanced Ceramics.

**ARTS 432 CERAMIC MATERIALS (2-4)**

General course covering origin/properties of clays; composition, properties/uses of materials in glazes; and calculation of glaze formulas/batches. Laboratory exercises involve use/properties of materials, development of clay body compositions and development of color/texture in glazes. Prerequisites: ARTS 229 and 330 or 329. Can replace one semester of Advanced Ceramics.

**ARTS 435 ADVANCED BRONZE FOUNDRY (2-4)**

In-depth instruction of processes involved in producing bronze sculpture. Students explore all aspects of realizing sculpture in bronze, from clay or plaster molds to wax; various methods of wax working/mold making, including ceramic shell, sand and investment; casting; and patination. Group critiques, fieldtrips. Laboratory fee due at time of registration. Prerequisite: ARTS 236, or consent of instructor. Textbook required.

**ARTS 436 ADVANCED SCULPTURE (2-4)**

Studio and field work that emphasizes the development of individual style. Group critiques, field trips, short writing assignments. Text book required. May be repeated for credit up to a maximum of 15 units, more for B.F.A. Laboratory fee payable at time of registration. Prerequisite: 6 units of ARTS 336 or consent of instructor.

**ARTS 440 ADVANCED ETCHING AND WOODCUT (1-4)**

Advanced studio problems in relief and intaglio printmaking methods, including relief, engraving, photo-engraving, monotype and etching. May be repeated for credit up to 12 units. Laboratory fee payable at registration. Prerequisite: ARTS 340.

**ARTS 442 ADVANCED LITHOGRAPHY (2-4)**

Advanced studio work in the lithography medium. Work with images on stone or metal plates involving black and white and some color processes, printing of limited editions and single proofs. Lecture, demonstration, and laboratory work. May be repeated for credit up to a maximum of 12 units. Laboratory fee payable at time of registration. Prerequisite: ARTS 342.

**ARTS 457 ADVANCED PHOTOGRAPHY (1-4)**

An advanced studio course, with an emphasis on contemporary photography, black & white and color, and student critiques in conjunction with in-progress darkroom work. Students contract for a body of work for the semester, culminating with an individual presentation of a final, professional portfolio. Prerequisites: ARTS 208 and two semesters of ARTS 308 or consent of instructor, based on portfolio review.

**ARTS 465 BFA SEMINAR (1-4)**

A studio seminar class designed specifically for B.F.A. students. Advanced topics in art and aesthetics will be examined through selected readings, writing and discussion. In-depth critiques of each student's work will be held. B.F.A. students only.

**ARTS 466 BFA PORTFOLIO ARTISTS' PRACTICES (3)**

Professional issues will be addressed in the preparation and presentation of a B.F.A. exhibition that will be reviewed and critiqued by the studio faculty. Students will be expected to give an oral defense of their work, prepare a statement, a curriculum vitae, and document their work in preparation for graduation. B.F.A. students only.

**ARTS 470 ART: THEORY AND PRACTICE (2-4)**

Advanced seminar course combining lecture/activity. Emphasis placed on development of proposals for works of art, in response to slide lectures and assigned readings, and exploration of new methods and materials outside student's usual medium. Participation in group critiques is an essential element of course. Lab fee. Prerequisite: Instructor(s) consent.

**ARTS 482 ADVANCED MONOTYPE (1-4)**

An advanced studio course emphasizing single and multiple images derived from a variety of original sources, including painting, hand-painted prints, chine colle and multiple manipulated prints. Up to 3 upper-division units may be applied toward a printmaking or painting emphasis. Up to 12 units may be repeated for credit. Laboratory fee payable at registration. Prerequisite: ARTS 382.

**ARTS 491 VISITING ARTISTS' LECTURE SERIES (1)**

This is a noontime visiting artists' lecturer series for the Art and Art History department. Cr/NC only. Attendance and paper required.

**ARTS 492 BA PORTFOLIO ARTISTS' PRACTICES (1-3)**

Professional issues will be addressed in the preparation and presentation of a portfolio of student work. Students will be expected to give an oral defense of their work, prepare a statement, a curriculum vitae, and document their work in preparation for graduation.

**ARTS 495 SPECIAL STUDIES (1-4)**

For upper-division art majors only. Consult department faculty in your area of emphasis. The university contract form with required signatures of student, instructor, faculty advisor, and department chair must be completed before registering for special studies units. Not applicable to the art minor or non-art major.

**ARTS 496 DIRECTED FIELD RESEARCH EXPERIENCE (1)**

Travel to galleries and museums in various North American cities. Individual and group participation required. Destinations vary; consult semester schedule for specifics. May be repeated and may be applicable to requirements in the major. Fee required at time of registration. Prerequisites: major status and advanced standing or consent of instructor.

**ARTS 497 DIRECTED FIELD RESEARCH EXPERIENCE (1-4)**

Travel to various destinations, which vary depending on type of field research being offered; consult semester schedule for specifics. May be repeated and may be applicable to requirements in the major. Students will be responsible for a field research project(s), based on the trip. Fee required at time of registration. Prerequisites: major status and advanced standing or consent of instructor.

**ARTS 498 SELECTED TOPICS IN ART STUDIO (1-4)**

A studio course dealing with intensive study of a particular art topic, which may vary by semester. May be repeated and applicable to requirements for a major in art. Consult advisor and department chair. Prerequisites: major status, advanced standing and instructor consent.

**ARTS 499 INTERNSHIP (1-4)**

Students in the internship program will have an opportunity to gain practical skills by working in a variety of gallery and museum situations in the private and public sectors. Credit will be given for completion of 3 hours of work per week, per unit, by prior arrangement with department coordinator. Prerequisite: consent of instructor. A-F or Cr/NC.

**ARTS 595 SPECIAL STUDIES (1-4)**

Prerequisites: graduate standing and consent of instructor.

## **Astronomy (ASTR)**

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### **ASTR 100 DESCRIPTIVE ASTRONOMY (3)**

Lecture, 3 hours. A survey designed primarily for non-science majors, including an introduction to historic astronomy, Newton's Laws, gravitation, atomic structure, light, and telescopes. Take a tour of the solar system, learn about space flight, stars and stellar evolution, galaxies and the structure of the universe. Satisfies GE, category B1 or B3 (Physical Sciences).

### **ASTR 231 INTRODUCTION OBSERVATIONAL ASTRONOMY (2)**

Lecture, 1 hour; laboratory, 3 hours. Principles of astronomical measurement techniques with field and laboratory studies of astronomical objects. Identification of constellations, astronomical coordinates, use of the telescope, techniques in imaging, photometry, and spectroscopy. Satisfies GE, category B1 or B3 (Physical Sciences) and GE laboratory requirements. Prerequisite: previous or concurrent enrollment in ASTR 100.

### **ASTR 303 EXTRATERRESTRIAL INTELLIGENCE AND INTERSTELLAR TRAVEL (3)**

Lecture, 3 hours. An open-minded appraisal of the possibilities and prospects for life in the universe and travel to the stars. Topics to be covered include a history of human thinking about extraterrestrial life; the nature of life; possible appearance and nature of extraterrestrial life; the Drake Equation; detection of extraterrestrial planets, planetary habitability, the Fermi Paradox; SETI; spaceflight; interstellar travel. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: ASTR 100.

### **ASTR 305 FRONTIERS IN ASTRONOMY (3)**

Lecture, 3 hours. A survey of recent developments in astronomy and how these breakthroughs are made: the discovery of planets orbiting other stars; the explosive deaths of stars and the creation of neutron stars and black holes; the study of the origin and fate of the Universe, including the search to understand dark matter and dark energy. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: one course in astronomy.

### **ASTR 331 ASTRONOMICAL IMAGING (2)**

Lecture, 1 hour; laboratory, 3 hours. An introduction to the methods and techniques of astronomical imaging. The course will offer a practical approach to using charged-coupled device (CCD) detectors and computer-controlled telescopes to obtain images of the moon, planets, stars, and nebulae. Topics include telescope control, planning observing programs, identifying astronomical objects, determining image sizes and exposure times, and image processing techniques. Prerequisite: ASTR 231 or consent of instructor.

### **ASTR 350 COSMOLOGY (3)**

Lecture, 3 hours. A survey of what we know about the Universe and how scientists have learned it. Topics include the Big Bang, cosmic inflation, surveys of galaxies, the origin and evolution of structure in the Universe, dark matter, and dark energy. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: ASTR 100.

### **ASTR 380 ASTROPHYSICS: STARS (3)**

Lecture, 3 hours. A quantitative study of the structure and evolution of stars, including stellar interiors and atmospheres, nucleosynthesis and late stages of stellar evolution. Prerequisites: PHYS 314 and MATH 211.

### **ASTR 396 SELECTED TOPICS IN ASTRONOMY (1-3)**

Lecture, 1-3 hours. A course of lectures on a single topic or set of related topics not ordinarily covered in the astronomy curriculum. The course may be repeated for credit with a different topic. Prerequisite: consent of instructor.

### **ASTR 482 ADV OBSERVATIONAL ASTRONOMY (2)**

Lecture, 1 hour; laboratory, 3 hours. A study of advanced observing techniques including imaging, and spectroscopy. Emphasis on the use of telescopes, instrumentation, and data processing including photometry and astrometry. Discussion of techniques across the electro-magnetic spectrum. Statistical treatment of data and error analysis. Prerequisites: ASTR 231, PHYS 209B, and 210B, and MATH 161; or consent of instructor.

### **ASTR 492 INSTRUCTIONAL DESIGN PROJECT (2)**

A directed project to develop at least one laboratory experiment and/or classroom activity that teaches basic concepts in undergraduate astronomy. Both written and oral presentations (including a demonstration of the experiment or activity) will be required. Prerequisites: PHYS 214 and 216 or PHYS 210B and 209B; ASTR 231.

### **ASTR 495 SPECIAL STUDIES (1-4)**

The Department of Physics and Astronomy encourages independent study and considers it to be an educational undertaking. Students wishing to enroll for special studies are required to submit to their supervising faculty members proposals which outline their projects and exhibit specific plans for their successful completion.

### **ASTR 497 UNDERGRADUATE RESEARCH IN ASTRONOMY (2)**

Supervised research in an area of astronomy that is currently under investigation by one or more members of the physics and astronomy department's faculty. This course may be repeated for up to 6 units of credit. Prerequisites: junior standing and consent of instructor.

## **Biology (BIOL)**

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### **BIOL 110 BIOLOGICAL INQUIRY (4)**

Lecture, 3 hours. Laboratory, 3 hours. A factual and conceptual exploration of the living world through presentataion, student inquiry and laboratory exercises. Topics include the bases of life; organization of living systems, from molecules to ecosystems, and their interactions; genetics, evolution and ecology. Satisfies GE, category B2 (Biological Sciences) and the GE laboratory science requirement. Not applicable to the biology major.

### **BIOL 115 INTRODUCTION TO BIOLOGY (3)**

Lecture, 3 hours. The unifying concepts of biology. Topics include the chemical and physical basis of life; cellular structure and function; molecular and Mendelian genetics; reproduction, development, structure and function of representative plants and animals; and evolution and ecology. Satisfies GE, category B2 (Biological Sciences). Not applicable to the biology major.

### **BIOL 121 DIVERSITY, STRUCTURE AND FUNCTION (4)**

Lecture, 3 hours. Laboratory, 3 hours. First in three-semester series required for biology majors. Introduces the extraordinary diversity of life and evolutionary relationships between groups of organisms, and compares body plans. For biology majors, satisfies GE, categories B2 or B3.

### **BIOL 122 GENETICS, EVOLUTION AND ECOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Second in three-semester series required for biology majors. Introduces mechanism of inheritance, evolution, and ecology. Recent advances in understanding processes underlying ecological and evolutionary relationships will be emphasized. For biology majors, satisfies GE, categories B2 or B3. May be taken before BIOL 121.

### **BIOL 123 MOLECULAR AND CELL BIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Third in three-semester series required for biology majors. Introduction to cell and molecular biology, with emphasis on molecular processes, cellular physiology, and regulatory mechanisms. For biology majors, satisfies GE, categories B2 or B3. Prerequisites: BIOL 121 and 122 or consent of instructor and CHEM 115AB. Concurrent or prior enrollment in CHEM 335A recommended.

### **BIOL 220 HUMAN ANATOMY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Survey of the body systems. Designed for pursuing careers in the allied health professions. Satisfies GE, category B3 and GE laboratory requirement. Prerequisite: BIOL 110 or 115, or 121/122.

### **BIOL 224 HUMAN PHYSIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. An integrated examination of the human body as an efficient system maintained by a complex of interacting, homeostatic mechanisms. Includes fundamental principles of function of major organ systems. Designed for those pursuing careers in the allied health professions. Satisfies GE, category B3 and GE laboratory requirement. Prerequisites: BIOL 110 or 115, or 121/122 and CHEM 115AB or 105.

### **BIOL 240 GENERAL MICROBIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. An introduction to the organization and characteristics of microorganisms, including bacteria, fungi, protists and viruses. Topics include their role in agriculture, industry and disease processes. Prerequisites: BIOL 110 or 115, and CHEM 115AB or 105.

### **BIOL 240 GENERAL MICROBIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. An introduction to the organization and characteristics of microorganisms, including bacteria, fungi, protists and viruses. Topics include their role in agriculture, industry and disease processes. Prerequisites: BIOL 110 or 115, and CHEM 115AB or 105.

### **BIOL 307 HUMAN NUTRITION (3)**

Lecture, 3 hours. Concepts of modern nutrition, including some discussion of principal nutritional problems and modern food processing methods. Prerequisites: BIOL 110, 115 or BIOL 121/122 and one course in beginning chemistry.

### **BIOL 308 ENVIRONMENTAL TOXICOLOGY (3)**

Lecture, 3 hours. Information needed to formulate a philosophy of chemical use: the nature of the interaction of toxicants and living organisms; categories of toxicological activity; toxicological evaluation and environmental monitoring; and governmental regulations and procedures. Satisfies GE, category B3 (specific Emphasis in Natural Sciences). Prerequisite: BIOL 110, 115 or 121/122.

### **BIOL 309 BIOLOGY OF CANCER (3)**

Lecture, 3 hours. Biological, clinical, environmental and psychosocial aspects of cancer explored through the perspectives of medical researchers, physicians, patients and health educators. This lecture series is intended for students of all majors, for those in the health professions and for the general public. It is designed so that everyone (regardless of scientific background) will benefit. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: BIOL 110, 115 or 121/122.

### **BIOL 311 SEXUALLY TRANSMITTED DISEASES (3)**

Lecture, 3 hours. Biological, environmental, societal and psychosocial aspects of sexually transmitted diseases. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: BIOL 110, 115 or 121/122.

### **BIOL 312 BIOLOGICAL OCEANOGRAPHY (3)**

Lecture, 3 hours. An introduction to the world's oceans with emphasis on the way in which their physical properties support life. Satisfies GE, category B3. Prerequisite: BIOL 110, 115 or 121/122.

### **BIOL 314 FIELD BIOLOGY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. A course emphasizing plant and animal communities of Northern California. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences) and GE laboratory requirement. Prerequisite: BIOL 115 or 121/122.

### **BIOL 315 PLANTS AND CIVILIZATION (3)**

Lecture, 3 hours. Field trips. Historical and evolutionary interrelationships between humans and domesticated plants, including the origins of agriculture and its development. Satisfies GE, category B3. Prerequisite: BIOL 110, 115 or 121/122.

### **BIOL 318 BIOLOGY OF AGING (3)**

Lecture, 3 hours. Examines the biological processes occurring in a cumulative fashion in the course of human senescence, including the medical and social consequences. Satisfies GE, category E. Prerequisite: BIOL 110, 115 or 123.

### **BIOL 322 INVERTEBRATE BIOLOGY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. Exploration of the systematics, functional morphology, behavior, and ecology of invertebrate animals. Prerequisite: BIOL 121 and 122.

**BIOL 323 ENTOMOLOGY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. A comprehensive foundation in the biology of insects, with emphasis on ecology, behavior, evolution, and systematics. Emphasis on the diagnostic features of insects and their major orders. Prerequisites: BIOL 121 and 122.

**BIOL 327 VERTEBRATE BIOLOGY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. Exploration of the systematics, behavioral ecology, biogeography, evolution, and conservation biology of fish, amphibians, reptiles, birds, and mammals. At least one weekend field trip. Prerequisites: BIOL 121 and 122.

**BIOL 328 VERTEBRATE EVOLUTIONARY MORPHOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Trends in the evolution of structure and function in the vertebrates. This course focuses on morphological adaptations at the organ system level that have enabled vertebrates to diversify and succeed in a wide range of habitats and environments. Prerequisites: BIOL 121 and 122.

**BIOL 329 PLANT BIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. An overview of plant biology, with focus on structure, function, reproduction, and evolution. Emphasis is on flowering plants, but a survey of all plant and plant-like organisms, both modern and extinct, is included. Prerequisites: BIOL 121 and 122.

**BIOL 330 PLANT TAXONOMY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. An introduction to the principles and practices of plant taxonomy, including approaches to classification, data analysis, and a survey of vascular plant families in the California flora. A minimum of two Saturday field trips is required. Prerequisites: BIOL 121 and 122.

**BIOL 331 AQUATIC BOTANY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. An overview of the ecology, evolution, physiology, conservation and practical uses of marine, estuarine, and freshwater plants and algae. Required field trips may be scheduled outside of scheduled class time. Prerequisites: BIOL 121 and 122.

**BIOL 333 ECOLOGY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. A current overview of this field, with in-depth coverage of ecology at the population, community, and ecosystem level. Emphasis on diverse taxa and habitats, hypothesis testing, and data collection and analysis. Prerequisites: BIOL 121 and 122 and MATH 165.

**BIOL 335 MARINE ECOLOGY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. An overview of current topics in marine ecology and conservation with emphasis on ecology of coastal ecosystems. Extensive focus on field and laboratory research projects. Includes experimental design, data analysis, and presentation. At least three 5-hour field trips outside of scheduled class time. Prerequisites: BIOL 121 and 122 and MATH 165.

**BIOL 337 BEHAVIORAL ECOLOGY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. Examines how the behavior of animals functions to optimize their fitness. Explores such topics as foraging, altruism, breeding systems, sexual selection, deceit, communication systems, and aggression with emphasis on techniques for formulating and testing hypotheses. Prerequisites: BIOL 121 and 122.

**BIOL 338 ENVIRONMENTAL MICROBIOLOGY AND BIOTECHNOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Examines microbial ecology and diversity along with biotechnological applications of microbes in agriculture, wastewater treatment, bioremediation, and biofuel production. Satisfies the ENSP Hazardous Materials Management and Water Quality Technology core requirement. Prerequisites: BIOL 121/122 and CHEM 115AB, or consent of instructor.

**BIOL 339 MYCOLOGY (4)**

Lecture, 2 hours. Laboratory and field, 6 hours. Principles and techniques for studying fungi and allied organisms, including the development of laboratory culture, identification and field work on terrestrial and aquatic fungi. Prerequisites: BIOL 121 and 122.

**BIOL 340 GENERAL BACTERIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. An introduction to prokaryotes covering their cell structure, metabolic diversity, interactions with other organisms, and pivotal roles in biogeochemical cycling. Laboratory projects develop skills essential for studies of bacteria. Laboratory in two 1.5 hour sessions per week. Prerequisites: BIOL 123 and CHEM 335A.

**BIOL 341 EVOLUTION (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. A broad examination of the patterns and processes involved in the evolution of life on earth. Includes inquiry into the origin of life, microevolutionary processes, systematics, and large-scale evolutionary history. Prerequisite: BIOL 123.

**BIOL 342 MOLECULAR GENETICS (4)**

Lecture, 3 hours. Laboratory, 3 hours. Gene structure and function at the level of DNA, RNA and protein interactions. Emphasis on molecular analytical techniques used for genetic analysis in a diversity of prokaryotic and eukaryotic organisms. Prerequisites: BIOL 123 and CHEM 335A.

**BIOL 343 MOLECULAR MICROBIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. The biochemical and molecular processes of pathogenic organisms within the four major groups of microbes: bacteria, parasites, fungi, and viruses. Prerequisites: BIOL 123 and CHEM 335A.

**BIOL 344 CELL BIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. An introduction to structural and molecular organization of eukaryotic cells and tissues. Specific topics will represent the central core of cell biology and are concerned mainly with those properties that are common to most eukaryotic cells. Prerequisites: BIOL 123 and CHEM 335A.

**BIOL 346 INTRODUCTION TO BIOINFORMATICS (4)**

3 Lecture, 2 hours. Laboratory, 6 hours. Principles and techniques of accessing E260biomolecular databases and analyzing retrieved sequences of nucleic acids and proteins. Statistical tools, sequence alignments, pattern mapping, structural modeling, and phylogenetics will be explored. Examples will be selected from plants, animals, fungi, protists, bacteria and viruses. Laboratory will involve computer exercises, projects, discussions and student presentations. Prerequisite: BIOL 123 or consent of instructor.

**BIOL 347 ENVIRONMENTAL PHYSIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Course examines the adaptations and physiological responses that allow animals to live under widely different environmental conditions. Laboratory and field exercises will utilize modern techniques of physiological measurement to examine adaptive strategies among and between species in different environmental conditions. Prerequisite: BIOL 123.

**BIOL 348 PLANT PHYSIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Concepts and principles of plant function. The following areas are investigated in detail: photosynthesis, water relations, mineral nutrition, and plant growth regulation. Prerequisite: BIOL 123.

**BIOL 349 ANIMAL PHYSIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Principles and concepts of animal function, with emphasis on cellular and biochemical/molecular bases of physiological activities in tissues and organ systems, environmental adaptations, and comparative homeostatic mechanism. Prerequisite: BIOL 123.

**BIOL 382 PARASITOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. The biology, epidemiology, ecology, pathogenesis, diagnosis, and prevention of parasitic diseases affecting animals and humans. Students will learn about the host-parasite relationship in the context of how social, economic, and ecological factors contribute to parasitic infections and disease. Labs involve microscopic identification of prepared and live specimens. Prerequisite: BIOL 347 or BIOL 349.

**BIOL 383 VIROLOGY (4)**

Lecture, 3 hours. Discussion, 1 hour. Viruses: their characteristics, classification, genetics, and host-parasite interactions, including methods of disease prevention, control, and applications in biotechnology. Prerequisites: BIOL 123 and CHEM 335A.

**BIOL 385 CONTEMP ISSUES IN BIOLOGY (3)**

Lecture, 3 hours. Selected topics related to the quality of life and the search for perspectives on the future. May be repeated with different topics. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: BIOL 110, 115 or 121/122.

**BIOL 390 BIOLOGY COLLOQUIUM (1)**

Lecture, 1 hour. Presentations by visiting scholars, departmental faculty, and master's degree candidates on current research and contemporary issues in biology. All majors and graduate students are encouraged to enroll each semester, although no more than 2 units are applicable to the biology major (BIOL 390) or MA degree (BIOL 590).

**BIOL 398 NON-MAJORS TEACHING PRACTICUM (1-3)**

Application of prior knowledge towards supervised instructional experience in biology courses. Intended for professional growth and lifelong learning for non-major undergraduates in biology. May be repeated for up to a total of 4 units; only graded units may apply to the biology minor. Prerequisites: prior completion of the course for which instructional assistance is to be provided, with a grade of B or better, consent of the instructor, and an approved petition to enroll.

**BIOL 426 NEUROBIOLOGY AND NEURAL NETWORKS (4)**

Lecture, 2 hours. Laboratory, 3 hours. Theoretical and experimental approach to studying basic concepts of electrophysiology, neuronal electrical activity and neuronal circuitry in invertebrate and vertebrate animals. Lab exercises include E420 studies of neuronal networks in crayfish, horseshoe crabs, and sea hares. Prerequisites: BIOL 115 or BIOL 121/122 and PHYS 210B or PHYS 214; or consent of instructor.

**BIOL 460 ICTHYOLOGY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. At least one weekend field trip. Morphology, classification, distribution, ecology, and evolutionary history of fishes. Prerequisite: BIOL 327 or 328.

**BIOL 463 HERPETOLOGY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. Classification, functional and evolutionary morphology, environmental physiology, and ecology of reptiles and amphibians. Includes at least one weekend field trip. Prerequisite: BIOL 327 or 328.

**BIOL 465 ORNITHOLOGY (4)**

Lecture, 2 hours. Laboratory and field, 6 hours. Avian classification, anatomy and life histories, including such topics as molts, distribution, migration and breeding habits. Prerequisite: BIOL 327 or 328.

**BIOL 468 MAMMALOLOGY (4)**

Lecture, 3 hours. Laboratory and field, 3 hours. Characteristics, classification, physiological ecology, habitats, behavior, reproduction, distribution and evolution of mammals. Prerequisite: BIOL 327 or 328.

**BIOL 472 DEVELOPMENTAL BIOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Patterns of animal development. This course is designed to provide students with a comprehensive appreciation of the developmental process, presenting detailed descriptions of developmental mechanism along with a conceptual framework for understanding how development occurs. Prerequisite: BIOL 342, 343, 344, or 383.

**BIOL 480 IMMUNOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. The component elements of the immune response; antigens and antibodies; theories of antibody synthesis, cellular reactions, hypersensitivity; immunogenetics. Prerequisites: one core course from each of the following U.D. core areas: Physiology, Molecular and Cell Biology.

**BIOL 481 MEDICAL MICROBIOLOGY (5)**

Lecture, 3 hours. Laboratory, 6 hours. Mechanisms of infectious diseases caused by bacteria and fungi, host-parasite interactions in the disease process, therapeutic modalities and infection control. Laboratory techniques for the cultivation, isolation, and identification of pathogenic bacteria and fungi. Emphasis is on methods and procedures currently utilized in diagnostic laboratories. Prerequisite: BIOL 343 or BIOL 340.

**BIOL 484 HEMATOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Blood: the normal and abnormal structure and function of red cells, white cells, and hemostatic mechanisms. Prerequisite: BIOL 347 or BIOL 349.

**BIOL 485 BIOMETRY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Introduces students to quantitative analysis of biological data. The nature of biological data, principles of experimental design, and essential statistical tools used by biologists to analyze their results. Examples used in the course will be drawn from physiology, ecology, evolution, and medicine. Laboratory sections will involve computer exercises, discussions, and student presentations. Prerequisites: BIOL 123 and MATH 165.

**BIOL 491 LIBRARY AND INFORMATION RESEARCHS: NATURAL SCIENCES (2)**

Techniques for finding library and information resources in the life sciences. Course covers use and evaluation of print and electronic information sources, including online and Internet databases, research strategies and techniques, compiling and preparing bibliographies, scientific writing form and style, and organization of personal reference files. Prerequisite: at least one biology course or consent of instructor.

**BIOL 494 INDEPENDENT RESEARCH DESIGN (1)**

Directed study under guidance of a faculty mentor to design a research project in biology through readings in primary literature and application of information from relevant upper-division course work. Prerequisites: cumulative GPA of 2.5, upper-division standing in biology, consent of instructor, and approved petition to enroll.

**BIOL 495 SPECIAL STUDIES (1-4)**

Investigations to meet an advanced specialized study need beyond the department curriculum. The project should be planned and described in written form with consent of the faculty sponsor. Prerequisites: a major or minor in biology with an upper-division standing; consent of instructor and department chair, and approved petition to enroll.

**BIOL 496 SENIOR RESEARCH (2)**

Experimental or observational research for the B.S. Degree conducted under the guidance of one or more of the biology faculty. A written report and an oral presentation of results in a public forum are required. Prerequisites: BIOL 494, senior standing in the major.

**BIOL 497 SELECTED TOPICS (1-4)**

Intensive study of biological topics, which will vary from semester to semester. May be repeated for credit and may be applicable to the requirements for a major in biology. Prerequisite: consent of instructor.

**BIOL 498 BIOLOGY PRACTICUM (1-4)**

Application of previously studied theory through supervised instructional work experience in biology. Intended for professional growth for undergraduates. Enrollees are required to write an evaluation of their course experience. May be repeated for up to a total of 4 units. Prerequisites: upper-division standing in biology, consent of the instructor in whose course the student will be working, and an approved petition to enroll.

**BIOL 499 INTERNSHIP IN BIOLOGY (1-4)**

Work that provides training in the use of biological skills in the community. Requires written agreement by students, faculty sponsor, on-the-job supervisor and field experience coordinators; please see department office for details. May be repeated for up to 8 units of credit; 3 hours per week for each unit. Cr/NC grading only.

**BIOL 500S GRADUATE SEMINAR (1-2)**

Advanced seminars exploring diverse topics in biological sciences. Topics vary from semester to semester, depending on faculty interest and expertise. This course may be repeated for credit.

**BIOL 510 SELECTED TOPICS IN BIOLOGY (2-4)**

Intensive study of biological topics, which will vary from semester to semester. Prerequisites: adequate undergraduate preparation in the topic under consideration and graduate or last-semester-senior standing with consent of instructor.

**BIOL 511 CONSERVATION GENETICS (2)**

Lecture, 1 hour. Discussion, 1 hour. An examination of the scientific approaches applied to species conservation. Although molecular genetic approaches will be emphasized, a variety of other approaches will also be considered (e.g. captive breeding, population viability analysis, and translocation). Prerequisite: consent of instructor.

**BIOL 512 CONSERVATION ECOLOGY (2)**

Lecture, 1 hour. Discussion, 1 hour. A seminar format with occasional lectures. An advanced exploration of current topics in the rapidly expanding field of conservation ecology. Specific topics considered will vary from semester to semester, depending on student interests. However, topics will commonly include habitat fragmentation and loss, global climate change, metapopulation dynamics, biological invasions, restoration ecology, and design and management of preserves. Prerequisite: BIOL 300.

**BIOL 513 SPECIATION (2)**

Lecture, 1 hour. Discussion, 1 hour. Examination of the theoretical and empirical approaches to defining species and a detailed survey of speciation modes and mechanisms. Lectures provide a framework for student led discussion of specific topics and case studies. Prerequisite: consent of instructor.

**BIOL 515 MACROEVOLUTION (2)**

Lecture, 1 hour. Discussion, 1 hour. A seminar format with occasional lectures. A topical and historical overview of the major macroevolutionary transitions that have occurred during the history of life. Particular attention will be given to broad patterns of change over time at higher levels of structural/organismic organization. Prerequisite: consent of instructor.

**BIOL 516 BIOENERGETICS (2)**

Lecture, 1 hour. Discussion, 1 hour. A seminar format with occasional lectures. An in-depth examination of energy flow through living organisms at all levels of biological organization, from molecules to populations. Topics may include cellular metabolism, animal energetics, thermoregulation, fasting physiology, locomotion, foraging energetics, reproductive energetics, life history theory, community energetics and population energetics. Prerequisite: consent of instructor.

**BIOL 517 PARADIGMS IN PARASITOLOGY (2)**

Lecture, 1 hour. Discussion, 1 hour. A seminar format with occasional lectures. Parasitology is a subject area that crosses many biological disciplines, and concepts in parasitology can be applied to any field of science. Students may choose topics that most closely relate to their research interests. Topics may include: ecology of emerging infectious diseases, how parasites affect their host's behavior, co-evolution of host-parasite associations, RNA editing, and how parasites evade the immune system. Prerequisite: consent of instructor; parasitology background not required.

**BIOL 518 BIOTECHNOLOGY (2)**

Lecture, 1 hour. Discussion, 1 hour. A seminar format with occasional lectures. The field of biotechnology is moving at a rapid pace, and many of the molecular and biochemical techniques are being applied to a wide variety of biological disciplines. Topics include: Structure-based approach to drug design, expressing recombinant proteins, DNA vaccines, and toxicity screening. Prerequisite: consent of instructor.

**BIOL 544 ADVANCED CELL BIOLOGY (4)**

Development and applications of major concepts in modern cell biology. Specific topics will include membrane structure and properties, metabolic pathways and physiology of energy conversion, cell signaling and principles of intercellular communication, cell-cycle dynamics and macromolecular regulation of cell division. Prerequisites: BIOL 344, and BIOL 348 or 349.

**BIOL 545 RECOMBINANT DNA LAB (4)**

Laboratory, 9 hours. Discussion, 1 hour. Techniques for the manipulation of DNA through gene cloning applicable in the study of all biological processes. Prerequisites: BIOL 342 or 344 and either BIOL 340 or CHEM 445.

**BIOL 578 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. Cr/NC only.

**BIOL 590 BIOLOGY COLLOQUIUM (1)**

Lecture, 1 hour. A series of lectures by faculty, master's degree candidates and invited guests on current research and contemporary issues in biology. All graduate students are encouraged to enroll each semester, although no more than 2 units are applicable to the MS degree. Cr/NC only.

**BIOL 595 SPECIAL STUDIES IN BIOLOGY (1-3)**

Investigations to meet highly specialized needs and to explore possible thesis topics. Project should be planned and described in writing with consent of faculty sponsor. Prerequisite: approved petition to enroll.

**BIOL 598 GRADUATE PRACTICUM (1-4)**

Application of previously studied theory to development and delivery of new instructional materials. Intended to provide professional growth for graduate students. Enrollees are required to write an evaluation of their course experience. Prerequisites: graduate standing in biology, consent of the instructor in whose course the student will be working, and an approved petition to enroll.

**BIOL 599 M.S. THESIS (1-3)**

Original investigation based on laboratory or field research that meets the department and university standards. Prerequisite: admission to classified standing and advancement to candidacy.

**Business Administration (BUS)**

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**BUS 150 BUSINESS AND SOCIETY (3)**

A survey of the major fields of management, designed to introduce students to the range of perspectives available in the discipline. Topics will include: accounting, finance, general management, health care management, human resources management, industrial relations, marketing, multinational management, organizational behavior, and systems analysis.

**BUS 211 BUSINESS STATISTICS (4)**

Topics include collection and presentation of data, discrete and continuous distributions, probability and sampling theory, statistical inference and hypothesis testing. Parametric and nonparametric statistical tests will be examined, including t-tests, Chi-square, and ANOVA. Additional topics include Regression, time series analysis and applications in business forecasting. Prerequisite: computer competency and pre-business math requirement.

**BUS 219 E/U COMPUTING TOOLS FOR BUS (3)**

A laboratory-intensive course in which students gain a working knowledge of personal and mainframe computer operating systems as well as popular business applications such as spreadsheets and databases.

**BUS 225 LEGAL ENVIRONMENT OF BUSINESS (4)**

A study of the legal and ethical framework within which management decisions are made. The course emphasizes the sources, functions and processes of law. It surveys a number of areas, including negligence, contracts, product liability and constitutional law, and reviews government regulations in the areas of consumer protection, antitrust, labor and employment law.

**BUS 230A FINANCIAL ACCOUNTING (4)**

A foundation course designed to provide a basic understanding of the theory and practice of accounting, with emphasis upon basic principles, concepts and controls in relation to external reporting. Prerequisite: computer competency.

**BUS 230B MANAGERIAL ACCOUNTING (4)**

A foundation course designed to provide a basic understanding of the theory and practice of accounting, with emphasis upon basic principles, concepts and controls in relation to internal reporting. Prerequisite: BUS 230A.

**BUS 232 INTRODUCTION TO THE ACCOUNTING CYCLE (1)**

An introduction to computer accounting applications, including forecasting, database management, and financial statement preparation using a spreadsheet program. Prerequisites: BUS 230A and 230B. Cr/NC only.

**BUS 270 PERSONAL FINANCIAL PLANNING (3)**

This course provides comprehensive coverage of personal financial planning in the areas of money management, career planning, taxes, consumer credit, housing and other consumer decisions, legal protection, insurance, investments, retirements, retirement planning, and estate planning. This course may not be used in the business major.

**BUS 292 LIBRARY AND INFORMATION RESEARCH: BUSINESS (1-3)**

Designed to teach business information research skills: Students will learn how to assess information, how to construct effective search skills, how to construct effective search strategies, how to find and retrieve information, and how to critically evaluate sources. Includes on-line research practice. Electronic and print sources for business research will be covered. Recommended for juniors who have completed most or all of the pre-business program. Cr/NC.

**BUS 295 WORK EXPERIENCE (2-4)**

Developed for students seeking an internship like experience but lacking the requisite academic experience for BUS 499, Internship. Cr/NC.

**BUS 296 INSTRUCTOR INITIATED RESEARCH PROJECT (1-4)**

This course is designed to provide students the opportunity to participate in faculty sponsored research or study projects. It permits the student to pursue an area of interest that s/he would like to develop in close consultation with a faculty member. Cr/NC only.

**BUS 305W INTRODUCTION TO WINE BUSINESS (4)**

An introduction to wine business principles and strategies applicable to the growing of grapes and the making, distribution, and marketing of wine. Additional topics include organizational, human resource, family business and financial management, government regulation and social responsibility. For students not familiar with wine industry terminology, BUS 305W is recommended prior to enrollment in wine concentration or wine focus classes.

**BUS 316 PRODUCTION OPERATIONS MGT (4)**

Production/operations management of manufacturing and service operations. Topics include analysis and decision techniques in the location, design, and layout of facilities and processes; work design and work measurement; line balancing; forecasting and scheduling; material requirements planning and quality assurance. Inventory control, linear programming, project management and queuing models and simulations are also examined. Prerequisites: computer competency and BUS 211.

**BUS 319 INTRODUCTION TO MIS (4)**

Study of characteristics of computer-based information systems in organizations. Topics include MIS theory, concepts and issues; systems, analysis and design; database design using the relational database model; data communications and LAN; and specific implementation in areas of manufacturing, accounting, finance, human resources and marketing. Prerequisite: computer competency.

**BUS 330A INTERMEDIATE ACCOUNTING (4)**

Current theory of accounting. Topics include the accounting process, design of financial statements, valuation of cash, receivables, inventories, plant and equipment, intangible assets and current liabilities. Concepts such as present value, LIFO and like-kind exchanges are covered. Prerequisites: BUS 230A and 230B.

**BUS 330B INTERMEDIATE ACCOUNTING (4)**

Current theory of accounting. Topics include the design of the statement of changes in financial position, valuation of capital stock and retained earnings. Other special topics will include earnings per share computation, current cost and constant dollar accounting, liability, leases, pension plans and price level accounting. Prerequisites: BUS 230A, 230B and 330A.

**BUS 334 ACCOUNTING INFO SYSTEMS (4)**

This course will present a thorough introduction to basic information systems theory, provide a working knowledge of systems analysis and design techniques, and introduce several fundamental accounting information flow patterns. In addition, it will examine the need for adequate systems controls, risks inherent in the controls, and refined systems output to support management decision-making processes. Prerequisite: computer competency, BUS 230A and 230B.

**BUS 336W WINE INDUSTRY ACCOUNTING AND TAX (4)**

This course incorporates current accounting theory within the following wine related areas: vineyard development, transfer pricing, long-term contracts, deferred income recognition, cost accounting, profit planning, net realizable value, inventory costing methods, cash flow projections, capital budgeting, leasing, construction, foreign currency translation and, throughout the various topics, corresponding income tax considerations. Prerequisites: BUS 230A and 230B.

**BUS 340 SURVEY OF HUMAN RESOURCE MANAGEMENT (4)**

Comprehensive introduction to the management of human resources. Topics include assessing human resource needs, job analysis, recruitment and selection, orientation and training, performance evaluation, compensation and benefits, safety and health, career development, labor relations and government regulation. Prerequisites: BUS 211 and 225.

**BUS 340W SURVEY OF HUMAN RESOURCE MGMT/WINE (4)**

Survey of Human Resource Management/Wine examines the same subject matter as BUS 340 Survey of Human Resource Management. However the focus of BUS 340W is on the practice of human resource management in the wine industry and special issues encountered within that industry. There are frequent guest appearances by human resource professionals working in the wine industry. Credit may not be received for both BUS 340 and BUS 340W. Prerequisite: BUS 211 and BUS 225.

**BUS 344 ORGANIZATIONAL BEHAVIOR (4)**

The role of the individual and of groups in the organization is examined. Attention is directed to individual level characteristics such as learning and personality, to processes that affect attitudes, perceptions and judgment, to applied theories of motivation, and to career development and stress. Topics include group formation, development, structure, leadership and dynamics as well as the processes of communication, decision making, power and conflict.

**BUS 350 MANAGEMENT (4)**

A management survey course will provide students with a framework for understanding the focus, function and relevance of specific disciplines in business administration. The course will illustrate the integrative nature of business organizations, exemplifying the interdependence of functional areas in pursuing organizational goals. Prerequisite: BUS 225.

**BUS 352 ORGANIZATIONAL THEORY (4)**

Course examines the evolution of theories of organization and management and focuses on the effects of structural and contextual dimensions in organization structures. Emphasis is on the strategic implications of organization design and on the structural mechanisms available to facilitate organization goals. The effects of organizational change, control, culture, decision making and conflict on structure are also considered. Prerequisite: BUS 350.

**BUS 354 APPLIED BUSINESS ANALYSIS (4)**

The course will focus on defining operational and tactical business problems, goals and decision factors in quantitative terms. Emphasis is on structuring problem situations and on 1) determining appropriate requisite factors related to the problem, 2) quantifying those factors, and 3) choosing the appropriate quantitative decision-making techniques to arrive at an optimal solution. Primary consideration is given to the appropriate identification of problems and goals, generally through case studies, and to the effective choice and operationalization of decision making techniques, generally through a project. Prerequisite: BUS 319 or BUS 334.

**BUS 360 INTRODUCTION TO MARKETING (4)**

Introduction to terminology and basic concepts, including product development; pricing; promotion and distribution of goods, services, and ideas. Emphasis is on consumer orientation and managing the marketing function within an uncertain environment. Marketing information systems and other marketing foundations are applied to the consumer. Prerequisites: BUS 211, 230A and 230B.

**BUS 366 RETAIL MANAGEMENT (4)**

Studies business activities that involve the sales of goods and services in the marketplace including retail institutions, merchandising, site selection, market information, and retail strategy and planning. Prerequisite: BUS 360.

**BUS 367 CONSUMER BEHAVIOR (4)**

Analysis of the cultural, social and psychological factors that influence the consumer's decision-making processes, including learning, perception, information search and information processing, personality, lifestyle, motivation and attitudes. Prerequisite: BUS 360.

**BUS 368 INTERNATIONAL MARKETING (4)**

Examines the marketing practices and customs, and the cultural, social, legal and ethical differences, of international markets. Emphasis on developing and adjusting the marketing mix of product, price, promotion and distribution to compete in international settings. Prerequisite: BUS 360.

**BUS 370 INTRODUCTION MANAGERIAL FINANCE (4)**

An introduction to the conceptual and analytical framework guiding financial decision making within the business firm. Emphasis is placed on financial analysis, the evaluation of investment opportunities available to the firm, working capital management, and the analysis of alternative means of financing the firm. Prerequisite: BUS 230A and 230B.

**BUS 377 FINANCIAL INSTITUTIONS AND MARKETS (4)**

Study of the structure and functions of the financial system in the U.S. economy. Topics include the role of financial intermediaries (including commercial banks), the money market, sources and uses of long-term funds, interest rates and security prices, the role of the Federal Reserve, monetary policy, international capital markets.

**BUS 385 SPECIAL TOPICS IN BUSINESS ADMINISTRATION (1-4)**

This course provides for the teaching of special topics in business administration. Consult your advisor regarding application to your concentration.

**BUS 388 SEMINAR IN PEER ADVISING (2)**

Seminar and practicum in peer advising within the context of higher education. Topics will include general education, major and university degree requirements, the diversity of students' needs as well as the campus services and resources designed to meet them, and interpersonal communication skills needed for academic advising. Cr/NC only. May be repeated once for credit.

**BUS 391 CROSS CULTURAL COMMUNICATION AND NEGOTIATION (4)**

The course provides students with techniques for becoming skillful cross-cultural communicators and negotiators. Topics include dimensions of culture and their implications in organizations, successful international business negotiation tactics, managing cultural diversity in the workplace.

**BUS 393 INTRODUCTION TO INTERNATIONAL BUSINESS (4)**

A survey of theoretical and institutional aspects of international trade and investment. The course will address topics including international trade theory, the international money market, balance of payments, international sourcing and management of international enterprises.

**BUS 394 INTERNATIONAL BUSINESS STRATEGY (4)**

This course will focus on understanding the political, economic, sociocultural and environmental factors affecting the development of options and strategies. Students gain appreciation of different forms of foreign involvement and which types are appropriate in view of national interests of host nations. Topics include the multinational corporation, exporting, importing, socioeconomic development, international economic order, changing U.S. role in the international economy, and management styles in different cultures. Case studies will be analyzed. Prerequisite: BUS 391 or 393.

**BUS 396W THE GLOBAL WINE INDUSTRY (4)**

This survey course provides an overview of the global wine industry. Topics include the analysis of global trends affecting wineries, the nature of international competition, the importing and exporting of wine, joint ventures and acquisitions in the wine industry involving partners from different countries. The course will discuss both consumption and production of wine around the world, with special emphasis placed on the impact of emerging new world wine producers. Because a two-week overseas field trip is a part of this course, it will be offered only during intersession or between semester breaks. Prerequisite: BUS 360.

**BUS 397W GLOBAL MARKETPLACE FOR WINE (4)**

The course provides an in-depth look at the global trends affecting the wine industry. Topics include the changes taking place in wine consumption in both established and emerging wine markets. The role played by imported wine in key markets will be discussed. Industry dynamics will be analyzed with a focus on the export strategy of wine firms and wine producing nations, the formation of joint ventures with international partners and the potential for investment in foreign firms and vineyards. Topics related to the workings of the bulk market for wine will also be presented. Prerequisites: BUS 305W and BUS 360.

**BUS 399A ADVANCED WORK EXPERIENCE IN ACCOUNTING (3-4)**

Designed for upper-division students in business administration with a concentration in accounting who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the student's faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

**BUS 399F ADVANCED WORK EXPERIENCE IN FINANCE (3-4)**

Designed for upper-division students in business administration with a concentration in finance who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the student's faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

**BUS 399FM ADVANCED WORK EXPERIENCE IN FINANCIAL MANAGEMENT (3-4)**

Designed for upper-division students in business administration with a concentration in financial management who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the student's faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

**BUS 399MG ADVANCED WORK EXPERIENCE IN MANAGEMENT (3-4)**

Designed for upper-division students in business administration with a concentration in management who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the student's faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

**BUS 399MK ADVANCED WORK EXPERIENCE IN MARKETING (3-4)**

Designed for upper-division students in business administration with a concentration in marketing who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the student's faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

**BUS 399W ADVANCED WORK EXPERIENCE IN WINE BUSINESS STRATEGIES (3-4)**

Designed for upper-division students in business administration with a concentration in wine business strategies who have an opportunity for an extraordinary on-the-job educational experience but are prohibited by the internship policy from taking BUS 499 (Internship) because of the prohibition against students turning existing jobs into internships. GPA in major of 2.0 is required and a student must have successfully completed either at least two courses in the area or at least sixteen (16) units of upper-division business courses prior to enrolling. Requests for BUS 399 must be approved by the student's faculty advisor and the department chair. A student may not receive credit for both BUS 499 (Internship) and BUS 399 (Advanced Work Experience) in a given concentration. A student may receive credit for BUS 499 in one concentration and credit for BUS 399 in another concentration based on a different work experience. No more than 8 units of BUS 399 and BUS 499 in total may be applied to the Business major. Cr/NC only.

**BUS 417 MANAGEMENT OF SERVICES (4)**

The study of effective techniques and strategies applicable to the successful management of a service-based organization. The course provides the student valuable perspectives by contrasting different types of major service businesses. Students are expected to be able to apply basic quantitative tools to solve service management problems. Prerequisite: BUS 316.

**BUS 420 BUSINESS DATA COMMUNICATIONS (4)**

A lecture, literature and case study-oriented survey course on the use of local and wide-area data communications in the business enterprise. Topics include LAN, WAN, EDI wide-band multimedia, distributed systems, and evolving system architectures and their impact on business organizations. Prerequisite: BUS 319 or BUS 334.

**BUS 422 BUSINESS DATA MODELS (4)**

Lecture, laboratory, 2 hours. A course in designing relational databases. The entity-relationship model is used to develop the conceptual data structure from which a normalized set of tables is extracted and implemented.

**BUS 422W BUSINESS DATA MODELS (4)**

Lecture, laboratory, 2 hours. A course in designing relational databases in the wine industry. Prerequisite: BUS 319 or BUS 334.

**BUS 430 ADVANCED ACCOUNTING (4)**

Advanced accounting, problems and theory. Topics include consolidations, business combinations, fund accounting, partnerships, foreign exchange and other current issues. Prerequisites: BUS 330A and 330B, or consent of instructor.

**BUS 433A INDIVIDUAL TAXATION (4)**

Analysis of the Internal Revenue Code pertaining to individual and corporate income taxes. Topics include determination of taxable income, deductions and exemptions, accounting records, returns, computation of taxes and tax planning. Subject matter to reflect the most recent tax law changes. Prerequisites: BUS 330A (may be taken concurrently).

**BUS 433B CORPORATION AND ESTATE TAXATION (4)**

Concepts and principles of federal taxation as they apply to business enterprise and fiduciaries, such as estates and trusts. Prerequisite: BUS 433A.

**BUS 434 AUDITING (4)**

Study of generally accepted auditing standards and procedures followed in the examination of financial statements and operating control reviews. Topics include evaluation and analysis of internal control, nature of and procedures for gathering audit evidence, professional ethics and legal liability, the standards of reporting financial information, and statistical sampling applications. Prerequisites: BUS 330A, 330B and BUS 334.

**BUS 435 COST ACCOUNTING (4)**

To introduce applications for the accountant's role in the decision-making process. Topics include contribution margin analysis, job-order and process costing, standard costing, transfer pricing, profit planning, cost centers, cost volume, profit relationships, inventory control and other current issues. Prerequisites: BUS 230B, 330A (330A may be taken concurrently).

**BUS 436 BUSINESS LAW (4)**

A study of areas of law of particular importance to business, including contracts, sales, negotiable instruments, secured transactions, agency, partnerships and corporations. Prerequisite: BUS 225.

**BUS 437 GOVERNMENTAL ACCOUNTING (4)**

Course deals with intricacies and peculiarities of fund accounting as it relates to governmental units, including preparing and recording the budget, the use of the encumbrances accounting, and the year-end closing of the budgetary accounts. Students will be exposed to GASB (Government Accounting Standards Board) standards, governmental financial statement requirements, and learn the different objectives and purposes of financial statements for non-profit vs. profit entities. Prerequisite: BUS 330A.

**BUS 441 RECRUITMENT, SELECTION AND PERFORMANCE APPRAISAL (4)**

Fundamental issues dealing with the staffing of organizations and evaluating individual performance are covered. Topics receiving attention include legal issues, fundamentals of measurement, incorporating job analysis results into the selection process, and design of selection processes and procedures. Issues of performance appraisal will be examined. Common methods and pros and cons of each will be explored. Prerequisite: BUS 340.

**BUS 442 TRAINING AND DEVELOPMENT (4)**

Theory and practice of training for developing the human resources in the organization. Topics include adult learning theory and research, methods of assessing training needs and learning styles, design of effective training experiences, presentation skills, and evaluation methods. Prerequisite: BUS 340.

**BUS 446 GOVERNMENT REGULATION AND HUMAN RESOURCES (4)**

An examination of current legislation and executive orders affecting the human resource function. Laws, orders, guidelines and regulations will be examined within the framework of the regulatory model, which presents an integrated framework for understanding the relation of societal problems, laws, agencies, guidelines, the courts and management responses. Prerequisite: BUS 340.

**BUS 447 LABOR MANAGEMENT RELATIONS (4)**

A study of modern labor-management relations. Topics include the factors favoring the growth of labor organizations, the historical development of labor movements, labor economics and the labor movement, collective bargaining and the modern legal framework of organized labor, conflict resolution through grievance/arbitration, and other relevant labor topics. Prerequisite: BUS 340.

**BUS 451 ENTREPRENEURSHIP / SMALL BUSINESS MANAGEMENT (4)**

Intended for prospective entrepreneurs wishing to start a new business and/or participate in the management of a small, ongoing company during its early months. Also appropriate for students interested in consulting, banking or investing in small companies. Emphasis on the preparation of realistic, action-oriented business plans necessary for presentations in organizing and financing. Prerequisite: BUS 360 or consent of the instructor.

**BUS 452 LEADERSHIP (4)**

The focus of this course is a comprehensive review of the writings and theories of leadership. Students will evaluate leadership traits and behavior, the effects of reciprocal influence, transformational leadership, the role of power versus authority, followership and related matters. Applications of theory to practice will be emphasized. Prerequisites: BUS 344 and BUS 350.

**BUS 453 SMALL BUSINESS ANALYSIS (4)**

This course focuses on decision making in functional areas of marketing, production and finance. Students, working in teams with faculty and professional supervision, consult with businesses to solve managerial problems. Prerequisites: BUS 360 or consent of the instructor.

**BUS 455 ALTERNATIVE DISPUTE RESOLUTION (4)**

This course will provide students with an understanding of the alternatives to litigation as a means of dispute resolution. The primary focus will be on two alternatives, mediation and arbitration. The first half of the course will focus on the mediation process and the basic problem solving skills that are a fundamental component of successful mediation. The second half of the course will emphasize the types of voluntary arbitration and the means to implement the process. Prerequisite: BUS 340.

**BUS 458 ORGANIZATION CHANGE AND DEVELOPMENT (4)**

Scholarly and practical study of how to implement effective change within organizations, such as re-organizing departments and business units, IT implementation, mergers and acquisitions, culture change, and other change events that impact organizations. Topics include: organizational change theory, processes, and models; the role of change agents; organizational diagnosis and intervention; culture, process, strategy, structure, and technology changes in organizations. Prerequisite: BUS 344.

**BUS 461 PROMOTION MANAGEMENT (4)**

Examines the planning, execution and measurement of the organization's external communications with its environment. Analyzes the four promotion tools: advertising, personal selling, sales promotion and public relations. Prerequisite: BUS 360.

**BUS 462 MARKETING RESEARCH (4)**

The theory and application of marketing research as a tool for management decision making. Emphasis is on problem identification and definition, research design, sampling procedure, primary and secondary data collection, statistical analysis, interpretation of data, and reporting of research findings. Prerequisites: BUS 211 (or ECON 317 or MATH 165), BUS 367 and BUS 319.

**BUS 463 SALES MANAGEMENT AND PERSONAL SELLING (4)**

Examines theory and practice in the principles and art of selling. Studies planning, organizing, leading, evaluating, and controlling of sales force activities. Prerequisite: BUS 360.

**BUS 464W PRODUCTION, OPERATIONS AND DISTRIBUTION (WINE) (4)**

The study of effective operations management techniques and strategies from the perspective of the California wine industry. The course emphasizes the basic concepts of purchasing, operations, logistics, and supply chain management as they apply to the wine industry. More specific topics include value analysis, total quality management, make/buy decisions, negotiation, and supplier development. Prerequisite: BUS 316.

**BUS 465W WINE MARKETING (4)**

An in-depth study of marketing from the perspective of the California wine industry. The course emphasizes wine marketing planning, including an analysis of wine consumer segments. The wine industry's economic, legal, social and competitive environment, industry trends, major problems and opportunities, and strategic alternatives as related to wine varieties and brands, pricing, promotion and distribution. Prerequisite: BUS 305W, BUS 360 and junior standing.

**BUS 466 ORGANIZATIONAL COMMUNICATION (4)**

This course teaches communication theory and skills as they are applied to management situations. Students will study the impact of the organizational environment on the practice of communication theory and the development of strategies for effectively relaying messages. Written and oral exercises will be stressed. Prerequisite: must have passed the WEPT.

**BUS 467W WINE E-COMMERCE AND DIRECT SALES (4)**

An in-depth study of electronic commerce aspects from the perspective of the California wine industry. Topics include opportunities and challenges associated with electronic commerce (e-commerce/e-business), and impacts of e-commerce with meeting strategic objectives of an organization in the wine industry. The course includes topics on database management, direct-to-consumer and government oversight/compliance issues, wine club management, and winery management software as they apply to the wine industry. Prerequisite: BUS 319.

**BUS 468 MARKETING DECISION MAKING (4)**

Data analysis and "what if" marketing decision making, using computer models and computer simulation. Emphasizes developing computer and analytical marketing skills. Prerequisites: BUS 360 and 367 (BUS 367 may be taken concurrently).

**BUS 469 MARKETING MANAGEMENT (4)**

Advanced study of marketing management, strategy and decision making through the use of marketing cases. Requires the integration of marketing concepts and theories from previous marketing course work. Prerequisites: BUS 360 and 367.

**BUS 470 MANAGERIAL FINANCE (4)**

Theory of managerial decision making in its financial and economic context. Topics include the decision-making environment, financial planning, budgeting and control, long-term investment decisions and capital budgeting techniques, working capital management, the cost of capital, valuation, rates of return, and choosing among alternative sources of funds. Prerequisite: BUS 370.

**BUS 471 FINANCIAL PLANNING AND STRATEGY (4)**

The application of financial concepts and analytical methods to the development and evaluation of alternative financial strategies and opportunities available to the firm. Emphasis is placed on financial decision-making and analysis of the small and mid-size firms. Prerequisite: BUS 470.

**BUS 472 INVESTMENTS (4)**

A study of the characteristics of securities: valuation, sources, selection strategies and theory of portfolio management. Stocks, bonds, options and futures markets will be included. A major term project is required. Prerequisite: BUS 370.

**BUS 473 INTERNATIONAL FINANCE (4)**

The foundations of financial theory (capital budgeting, capital markets, EMH/CAPM/portfolio theory, capital structure, short term financing) are set in an international/MNC context where currency exchange rates, differences in accounting procedures, international trade, political risk, investments and financing are examined. Prerequisite: BUS 370.

**BUS 474 COMPUTER APPLICATIONS IN FINANCE (4)**

A course in financial modeling, analysis and research using computers. Emphasis is placed on the development of models required for the evaluation of financial alternatives. Prerequisite: BUS 370.

**BUS 475W WINE ACCOUNTING AND FINANCE (4)**

This course focuses on financing, investing and accounting decisions facing managers of wine businesses. It explores the financial reporting issues that are unique to wine businesses and how these issues affect valuation. This course is directed to those interested in careers in accounting and finance as well as those interested in understanding relevant accounting and finance issues for wine business. Prerequisite: BUS 370.

**BUS 475W WINE ACCOUNTING AND FINANCE (4)**

This course focuses on financing, investing and accounting decisions facing managers of wine businesses. It explores the financial reporting issues that are unique to wine businesses and how these issues affect valuation. This course is directed to those interested in careers in accounting and finance as well as those interested in understanding relevant accounting and finance issues for wine business. Prerequisite: BUS 370.

**BUS 476 RISK MANAGEMENT AND INSURANCE (4)**

The course focuses on identifying and evaluating risk exposures for individuals and firms. Insurance products or financial products can mitigate the effects of risk related losses, and this course introduces students to a range of insurance products sold or used in financial markets. Additionally, the course provides an integrated approach to present the area of Enterprise Risk Management (ERM), which analyses traditional pure risks together with financial risks as a part of overall risk management of the firm. Prerequisites: BUS 370 or permission of the instructor.

**BUS 491 SEMINAR IN MANAGEMENT STRATEGY AND POLICY (4)**

Seminar covering current issues in managerial strategy and corporate policy that integrates concepts of organization theory and behavior, marketing, finance, human resources, production/operations, information systems, entrepreneurship, accounting, economics, and international business. This is the capstone for the business administration major and would be expected to be taken in the last semester prior to graduation. Prerequisites: all business core requirements, a passing score on the WEPT, and application for award of degree.

**BUS 491W SEMINAR IN MANAGEMENT STRATEGY AND POLICY IN THE WINE INDUSTRY (4)**

Seminar covering current issues in managerial strategy and corporate policy that integrates concepts of organization theory and behavior, marketing, finance, human resources, production/operations, information systems in the wine industry, entrepreneurship, accounting, economics, and international business in the wine industry. This is the capstone for the business administration major and should be taken in the last semester prior to graduation. Prerequisites: all business core requirements, a passing score on the WEPT, and application for award of degree.

**BUS 495 SPECIAL STUDIES (1-4)**

Student-designed and instructor-guided projects, to be arranged individually. May be repeated once for credit. Independent study credit will be granted only to students who have: 1) attained senior status, 2) minimum GPA in business administration of 3.0, and 3) substantial background in the field involved in the petitioned study. A maximum of 4 units are applicable to the business administration major.

**BUS 499 INTERNSHIP IN BUSINESS (3-4)**

Field experience in management and administration. For upper-division students in fields of their career or academic interest. Minimum of three hours per week per semester unit. Four units maximum are applicable to the business administration major. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. Prerequisite: prior arrangement with internship coordinator.

**BUS 499A INTERNSHIP IN ACCOUNTING (3-4)**

Field experience, for upper division students, in management and administration with an emphasis in accounting. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and Bus 499A may not be used as a concentration elective. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

**BUS 499F INTERNSHIP IN FINANCE (3-4)**

Field experience, for upper division students, in management and administration with an emphasis in finance. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and only one in any single concentration. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

**BUS 499FM INTERNSHIP IN FINANCIAL MANAGEMENT (3-4)**

Field experience, for upper division students, in management and administration with an emphasis in financial management. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and only one in any single concentration. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

**BUS 499MG INTERNSHIP IN MANAGEMENT (3-4)**

Field experience, for upper division students, in management and administration with an emphasis in management. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and only one in any single concentration. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

**BUS 499MK INTERNSHIP IN MARKETING (3-4)**

Field experience, for upper division students, in management and administration with an emphasis in marketing. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and only one in any single concentration. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

**BUS 499W INTERNSHIP IN WINE BUSINESS STRATEGIES (3-4)**

Field experience, for upper division students, in management and administration with an emphasis in wine business strategies. All internships that may be used in a concentration shall be either 3 or 4 units. No internship may be counted in more than one concentration. No more than two internships may be used for credit in the BS in Business Administration program and only one in any single concentration. GPA of 2.0 is required in major plus two courses in the field of concentration. Cr/NC only. The internship requires a minimum of three hours per week per semester unit. Prerequisite: prior arrangement with internship coordinator.

**BUS 501 PRINCIPLES OF ACCOUNTING (3)**

A foundation course designed to provide a basic understanding of the theory and practice of accounting with emphasis upon basic principles, concepts and controls in relation to external and internal reporting. Prerequisites: computer competency and a bachelor's degree.

**BUS 504 HUMAN RESOURCE MANAGEMENT AND ORGANIZATIONAL BEHAVIOR (4)**

Topics from HRM will include equal employment opportunity/affirmative action, staffing, performance evaluation, job design, compensation administration, safety and health, employee rights and discipline, and labor relations. Behavioral topics will include individual and group behavior, motivation, decision making, leadership, organization development and culture. Project requires analysis and synthesis of relevant topics. Prerequisite: a B.A. or B.S. degree.

**BUS 506 MARKET ANALYSIS (3)**

The terminology and concepts of marketing including segmentation, product development, pricing, promotion and distribution. A marketing plan, case or similar application project is required. Prerequisite: a B.A. or B.S. degree.

**BUS 507 FOUNDATIONS OF MANAGERIAL FINANCE (3)**

A foundation course designed to provide the conceptual and analytic framework guiding financial decision-making within the business firm. Emphasis is on financial analysis, the evaluation of investment opportunities, working capital management, and alternative means of financing the firm. Prerequisite: BUS 501.

**BUS 508 MANAGERIAL STATISTICS AND THEIR APPLICATION (3)**

Statistical data analysis with an emphasis on problems from manufacturing and service operations and their solution using Excel. Instruction will include spreadsheet analysis and a project involving the application of statistical methods. Prerequisite: a B.A. or B.S. degree.

**BUS 516 OPERATIONS MANAGEMENT (3)**

Production/operations management of manufacturing and service operations. Topics include forecasting and scheduling; material requirements planning and quality assurance. Additional tools include inventory control, project management, and product development. Modern techniques such as Supply Chain Management, e-business, Just-in-Time and Total Quality Management are illuminated.

**BUS 519 MANAGEMENT INFORMATION SYSTEMS (3)**

Study of fundamental role information systems and technologies play in organizations and management issues they raise. Topics include IS/IT'S strategic importance; technology, legislative, and industry trends; systems development issues and practices; project management; database design and management; management of IS/IT assets.

**BUS 530 FINANCIAL STATEMENT ANALYSIS (3)**

Students learn to analyze financial statements for the purpose of valuing the firm. The course takes a user perspective, not a preparer's perspective. The course is an inter-disciplinary accounting and finance course. Students learn the limitations and complexities of the numbers used in valuing major components of the financial statements. Significant emphasis is placed on the current American regulatory environment; impending changes within that environment; as well as on international and global regulatory issues. Prerequisites: BUS 501 or BUS 230A and 230B, and BUS 507.

**BUS 540 STRATEGIC HUMAN RESOURCE MANGEMENT (3)**

Strategic human resource management offers a framework for general managers to implement best HR practices in their organizations. The focus is on implementing long term programs that either add demonstrable value, or programs which effectively manage risks to the organization, Emphasis will be placed on utilizing HR metrics to measure outcomes.

**BUS 545W GLOBAL WINE BUSINESS (3)**

Current theory and practice of how wine businesses have evolved to become a global industry. Students analyze and debate cutting edge issues in strategic management, leadership, organization, human resources, entrepreneurship, family business, government regulation, management of technology, financial management, and socially responsible practices. Prerequisite: Classified Graduate status in the Wine MBA Concentration

**BUS 550 SEMINAR IN ORGANIZATION BEHAVIOR AND MANAGEMENT THEORY (3)**

An examination of the business organization with reference to management, design, change and organizational behavior. Prerequisite: BUS 504 or equivalent.

**BUS 552 LEADERSHIP AND TEAM BUILDING (3)**

Leadership and Team Building go hand in hand and represent critical elements of the managerial process. This course examines theoretical formulations of leadership and combines that with study of exemplar leaders. Specific topics include: use of power, authority and persuasion, characteristics of effective leaders, comparison of alternative leadership styles, and entrepreneurial leadership. The role of leaders in molding teams is an underlying theme. Prerequisite: BUS 504 or equivalent, or consent of instructor.

**BUS 554 SOCIAL ENTREPRENEURSHIP IN THEORY AND PRACTICE (3)**

This course examines the theory and practices of social entrepreneurship, The course will examine how entrepreneurial solutions can be fashioned and applied to job creation, workforce development and meeting other social needs. Specific topics include: social responsibility, venture philanthropy, opportunity assessment, market analysis, financial principles of sustainability, micro enterprises, and nonprofit organizations.

**BUS 555W SUSTAINABILITY IN THE WINE HOSPITALITY INDUSTRY (3)**

Current theory and practice of how wine and hospitality businesses can become sustainable business. Course content includes business rationale for adopting environment and social equity practices for improved business performance and success. Students analyze and debate cutting-edge issues in sustainability including a review of global wine and hospitality businesses using sustainable practices; audit and compliance; energy management systems; ISO standards; creation of sustainable business strategies; development of policies and practices for sustainable practices for operations; success measures; and cost-benefit analysis. Prerequisite: Classified Graduate status in the Wine MBA Concentration.

**BUS 559 SEMINAR IN ADVANCED MGMT TOPICS (3)**

Graduate study of a current or emerging management topic of special interest. May be repeated for credit with the consent of the M.B.A. coordinator. Prerequisites to be determined by the instructor.

**BUS 560 SEMINAR IN MARKETING MANAGEMENT (3)**

Study of marketing situations, development of marketing plans and evaluation of marketing programs. Careful consideration of the conceptual background of marketing including trends and emerging developments. Prerequisite: BUS 506 or equivalent.

**BUS 565W MARKETING AND SALES STRATEGIES FOR WINE (3)**

Study of wine marketing and sales on a global basis. Focus on branding, research, positioning and promotion of wine. Consideration of distribution alternatives and sales strategies for wine. Development of marketing plans for wine products. Prerequisite: Classified Graduate status in the Wine MBA concentration.

**BUS 570 SEMINAR IN MANAGERIAL FINANCE (3)**

Financial theory and applied financial analysis. Topics may include security analysis, portfolio management, financial accounting, corporate financial policy, investment banking and international finance. Prerequisites: ECON 501, BUS 501, BUS 507 or BUS 370 and BUS 508, or equivalent preparation.

**BUS 578 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the M.B.A. graduate coordinator. Cr/NC only.

**BUS 581 RESEARCH METHODS FOR MANAGERS (3)**

Practical approaches to the design, execution and interpretation of applied business research activities. Development of analytical skills and research techniques, including an understanding of the assumptions, limitations and appropriate uses of various research designs and strategies. Prerequisite: BUS 508.

**BUS 591 SEMINAR IN STRATEGIC MANAGEMENT (3)**

A consideration of the entire organization from the viewpoint of the chief executive officer. Topics to be covered include strategy formulation, the development of competitive advantage, strategy implementation, and the management of strategic change. Prerequisites: BUS 540, 560, 570.

**BUS 592 ENTREPRENEURSHIP AND NEW VENTURE CREATION (3)**

Entrepreneurship focuses on new venture creation and venture feasibility analysis. Working in teams, students will learn to identify, conceptualize, plan, finance, launch, manage and harvest new ventures. Entrepreneurship, the application of entrepreneurial methods of management to established organizations, will also be discussed. Prerequisites: BUS 540, 560, 570.

**BUS 593 SEMINAR IN INTERNATIONAL BUSINESS (3)**

Comprehensive view of the international economic environment as it relates to international business. Topics include the multinational corporation, subcontracting, counter trade and international institutions such as the World Bank and GATT. Prerequisite: ECON 501.

**BUS 595 SPECIAL STUDIES IN BUSINESS ADMINISTRATION (1-3)**

Supervised independent study. A maximum of 3 units may be applied toward the requirements for the M.B.A. degree. Prerequisite: consent of faculty member under whom the individual work is to be conducted, consent of the M.B.A. coordinator, and approved "Application for Special Study 495/595."

**BUS 596 GRADUATE INTERNSHIP (1-3)**

Field experience for qualified graduate students in business administration. A maximum of 3 units may be applied toward the requirements for the M.B.A. degree. Students must establish with the M.B.A. coordinator that the work involved is clearly integral to the student's graduate studies. Cr/NC grade only.

**BUS 599 MASTER'S DEGREE DIRECTED RESEARCH (1-3)**

Research directed by the student's committee on a project. An Advancement to Candidacy Form GSO 1 must be filed with the MBA Coordinator before the student registers for this course.

**Chemistry (CHEM)**

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**CHEM 102 CHEMISTRY AND SOCIETY (3)**

Lecture, 2 hours; laboratory, 3 hours. An introductory course in chemistry for non-majors. Covers the basics of chemistry in an effort to better understand current environmental issues. The laboratory will consist of experiments covering chemical principles and phenomena discussed in the lecture. Satisfies GE, category B1 (Physical Sciences) and GE laboratory requirement.

**CHEM 105 ELEM OF GENERAL, ORGANIC AND BIOCHEM (5)**

Lecture, 4 hours; laboratory, 2 hours. A survey of the principles of chemistry, with emphasis placed on those that apply to living organisms. The course is designed for students in nursing and majors that do not require further courses in chemistry. Course is not a prerequisite for any chemistry course. Satisfies GE, category B1 (Physical Sciences) and GE laboratory requirement.

**CHEM 107 INTRODUCTION TO PHYSICAL SCIENCE FOR TEACHERS (3)**

Lecture, 3 hours. A non-mathematical course designed to introduce students to a range of topics in physics and chemistry that are required by the California Science Standards for grades K-8, including the laws of motion, energy, the structure of matter, the states of matter, electricity and magnetism, light and optics. Lectures include many demonstrations to illustrate physical science principles and students will be asked to think about how they would demonstrate or explain various concepts.

**CHEM 110 INTRODUCTORY GENERAL CHEMISTRY (3)**

Lecture, 3 hours. Develop fundamental knowledge and necessary skills in General Chemistry for students who plan to major in science or pre-health programs. Recommended for students with no prior chemistry background or as a refresher course to enhance an insufficient chemistry background. Topics covered include the scientific method, word problem analysis, significant figures, scientific notation, unit conversion, periodic table, chemical equations, fundamental laws of matter and energy, the mole concept and stoichiometry. Prerequisite: Satisfaction of ELM requirement. Cr/NCr or graded. Satisfies GE category B1. Fall only.

**CHEM 115A GENERAL CHEMISTRY (5)**

Lecture, 3 hours; laboratory 3 hours. Principles of chemistry for students in science, pre-health and related areas of study. This course will introduce students to science and scientific thought by using problem-solving strategies in both a conceptual and mathematical manner. First semester topics include atomic and molecular structure, states of matter, chemical reactions, stoichiometry and thermodynamics. Second semester topics include kinetics, equilibrium, buffers, and electrochemistry. Satisfies GE, category B1 (Physical Sciences), and laboratory requirements.

**CHEM 115B GENERAL CHEMISTRY (5)**

Lecture, 3 hours; laboratory 3 hours. Continuation of CHEM 115A. Prerequisite: CHEM 115A. Satisfies GE, category B1 (Physical Sciences), and laboratory requirements.

**CHEM 125A HONORS ANALYTICAL GENERAL CHEMISTRY (5)**

Lecture, 3 hours; laboratory 3 hours (5 units). This one-year sequential honors analytical general chemistry course is designed for students who have a prepared background in chemistry. Topics traditionally covered in the first semester of general chemistry (periodic trends, stoichiometry, aqueous chemical reaction and molecular geometry) will be briefly reviewed. However, this first semester course (CHEM 125A) will focus on bonding, kinetics, solutions, acid-base equilibrium, thermodynamics, and electrochemistry. Prerequisite: 4 or higher on the high school AP chemistry exam, or a pass on the departmental chemistry placement exam. Letter grade or Cr/NC. Fall A / Spring B. GE credit for area B1.

**CHEM 125B HONORS ANALYTICAL GENERAL CHEMISTRY (5)**

Lecture, 3 hours; discussion 1 hour; laboratory 3 hours (5 units). The second semester (CHEM 125B) starts by applying the topics covered in the first semester to statistics, chemical literature, chromatography, spectroscopy and biological chemistry. After completion of this course students will receive credit for the full year of general chemistry and one semester of quantitative analysis (CHEM 255). Prerequisite: 4 or higher on the high school AP chemistry exam, or a pass on the departmental chemistry placement exam. Letter grade or Cr/NC. Fall A / Spring B. GE credit for area B1.

**CHEM 255 QUANTITATIVE ANALYSIS (4)**

Lecture, 2 hours; laboratory, 6 hours. Theory and practice of methods of analysis, including volumetric, gravimetric and selected instrumental techniques. Prerequisite: CHEM 115B.

**CHEM 310A FUNDAMENTALS OF PHYSICAL CHEMISTRY (3)**

Lecture, 3 hours. Development and applications of the concepts of thermodynamics, equilibrium, kinetics, quantum mechanics, and spectroscopy to chemical systems. Prerequisites: CHEM 255; CHEM 125B; MATH 211S; PHYS 210AB or 214 and 216; or consent of instructor.

**CHEM 310B FUNDAMENTALS OF PHYSICAL CHEMISTRY (3)**

Lecture, 3 hours. Continuation of CHEM 310A. Prerequisites: CHEM 310A; CHEM 255; CHEM 125B; MATH 211S; PHYS 210AB or 214 and 216; or consent of instructor.

**CHEM 316 FUNDAMENTALS OF PHYSICAL CHEM LAB (2)**

Lecture, 1 hour; laboratory, 3 hours. Physicochemical measurements, with an emphasis on error analysis, instrumental techniques, report writing and presentation. Prerequisites: CHEM 310A; concurrent enrollment in CHEM 310B or consent of instructor.

**CHEM 325 INORGANIC CHEMISTRY (3)**

Lecture, 3 hours; Atomic structure, symmetry and group theory of small molecules and the relationship of these concepts to bonding theory and molecular spectroscopy. Applications of symmetry and group theory to coordination chemistry of transition metal complexes in organometallic, environmental, bioinorganic, and materials chemistry. Other topics include kinetics and reaction mechanism of inorganic and organometallic compounds including electron transfer. Prerequisites: CHEM 310B, or concurrent enrollment.

**CHEM 335A ORGANIC CHEMISTRY (5)**

Lecture, 3 hours; laboratory lecture, 1 hour; laboratory, 3 hours. Basic course in the general theory and reactions of organic chemistry. Emphasis on basic principles. Recommended for science and pre-professional majors. Prerequisite: CHEM 115B; CHEM 125A or consent of instructor.

**CHEM 335B ORGANIC CHEMISTRY (3)**

Lecture, 3 hours. Continuation of CHEM 335A. Prerequisite: CHEM 335A.

**CHEM 336 ORGANIC CHEMISTRY LAB (2)**

Laboratory lecture, 1 hour; laboratory, 3 hours. Fundamental techniques of organic chemistry, emphasizing synthetic organic chemistry, modern instrumental methods, and qualitative organic analysis. Designed to complement CHEM 335B. Prerequisite: CHEM 335A.

**CHEM 397 CHEMISTRY PRACTICUM (1-6)**

Supervised chemistry work experiences that involve practical application of previously studied theory. Intended for professional growth and/or collection of data for future theoretical interpretation. Not applicable toward the chemistry major or minor. May be repeated for up to a total of 6 units. Two hours of work per week for each unit of credit. Cr/NC only. Prerequisite: junior standing or consent of instructor.

**CHEM 401 INSTRUMENTAL ANALYSIS AND CHEMICAL SYNTHESIS (3)**

Lecture, 1 hour; laboratory 6 hours. An integrated inquiry and project-based upper-division course. The projects will cover the synthesis and characterization of organic and inorganic molecules and characterization of student-prepared molecules. This course is only offered in the fall. Prerequisites: CHEM 255 or CHEM 125B; and CHEM 336 highly recommended.

**CHEM 402 ADVANCED SYNTHESIS AND INSTRUMENTAL ANALYSIS (3)**

Lecture, 1 hour; laboratory 6 hours. Project-based synthesis, purification and characterization of inorganic, organic and organometallic molecules. Capstone course for BS chemistry degree. Topics will include air-sensitive syntheses, standard Schlenk line techniques, characterization through IR, optical and NMR spectroscopy, mass spectrometry and electrochemistry. Prerequisite: CHEM 401. Highly recommended: CHEM 325, or consent of instructor.

**CHEM 441 BIOCHEMICAL METHODS (3)**

Project based course involving characterization of proteins from natural sources utilizing biochemical methods and experimental design techniques common in biotechnology and research. Capstone course for biochemistry degree. Offered in spring only. Prerequisites: CHEM 445 or 446 (may be concurrent), CHEM 255 and a foundation in spectroscopy, kinetics strongly recommended.

**CHEM 445 STRUCTURAL BIOCHEMISTRY (3)**

Lecture, 3 hours. A study of the structure: function relationships of amino acids, proteins, enzymes, carbohydrates, lipids and nucleic acids. Also includes topics such as enzyme kinetics, membrane transport and signaling. Only offered in the fall. Prerequisites: CHEM 335B or CHEM 232 and a foundation in kinetics and thermodynamics, or consent of instructor.

**CHEM 446 METABOLIC BIOCHEMISTRY (3)**

Lecture, 3 hours. A study of bioenergetics and the metabolism of biological molecules including carbohydrates, lipids, nucleic acids, and proteins. This course is only offered in the spring. Prerequisites: CHEM 335B or CHEM 232, CHEM 445 or BIOL 123, and a foundation in kinetics and thermodynamics, or consent of instructor.

**CHEM 492 CHEMISTRY SEMINAR SERIES (1)**

Invited speakers from universities and industry will present on current topics in the chemical and biochemical fields.

**CHEM 494 UNDERGRADUATE RESEARCH AND SERVICE LEARNING (1-6)**

This course serves as a 'senior experience' for our graduating majors. Under supervision by the chemistry faculty, students will participate in individual investigations of student- or faculty-initiated chemical problems. May be taken only by petition to the Chemistry Department. May be repeated. Prerequisites: consent of instructor.

**CHEM 495 SPECIAL STUDIES (1-3)**

Investigation of existing information on a specific or general topic of interest to the student. May be repeated. Prerequisite: consent of instructor; upper-division standing in chemistry or closely related science.

**CHEM 496 SELECTED TOPICS IN CHEMISTRY (1-3)**

A study of an advanced topic in chemistry. May be repeated for credit with new subject matter.

**CHEM 497 RESEARCH SEMINAR (1)**

Laboratory, 3 hours. Capstone course for B.A. and B.S. degrees. The course will focus on techniques involved in the preparation and delivery of technical seminars. This final project will be a formal oral presentation to the chemistry department on a research paper from the chemical literature or the student's undergraduate research project. Instruction includes the appropriate coverage of the selected topic, use of the chemical literature, and the preparation and use of PowerPoint, graphic and web-based applications to create an informative talk. Prerequisites: senior standing or consent of instructor.

**CHEM 499 INTERNSHIP (1-4)**

Chemistry field experience in industrial, hospital or similar laboratory settings. Enrollment by prior arrangement with supervising faculty member and community sponsor. Please see department advisor for details. Three hours of work per week for each unit of credit. Internship assignments may be paid. Cr/NC only. May be repeated.

**Chicano and Latino Studies (CALS)**

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**CALS 219 THE LATINO EXPERIENCE (3)**

A survey of the Chicano and Latino experience in the United States. The course serves as an introduction to Chicano and Latino studies through the social sciences in order to explain the individual's status and place within the group and society. This includes how Chicano and Latinos and other Latinos have adapted to the various cultural, social, economic and political elements of U.S. society as compared to other groups. Satisfies ethnic studies requirement in GE, category D1 (Individual and Society).

**CALS 220 CHICANO/LATINO ARTS AND LITERATURE (3)**

A survey of the humanities (arts and letters) found in Chicano/Latino cultures. Introduction to traditional and contemporary literature, drama, cinema, art, music, and dance forms found in the Spanish-speaking communities of the Southwestern United States and their related heritages. Satisfies ethnic studies in GE, category C4 (Comparative Perspectives).

**CALS 225 SPANISH FOR BILINGUALS (3-4)**

The study of the grammar and structure of Spanish with ample practice, in oral and written forms, to help develop proficiency in normative Spanish, using various language-acquisition techniques. Students will be able to enter upper-division classes in Spanish. Standard or normative Spanish will be compared and analyzed in terms of non-normative, regional and local community varieties of Spanish. Prerequisite: functional Spanish skills at the second-year level or equivalent. Satisfies foreign language in GE, category C4 (Comparative Perspectives and Foreign Languages). This course does not satisfy GE ethnic studies requirements. Requirement: concurrent enrollment in CALS 225L.

**CALS 225L LANGUAGE LABORATORY/FIELD WORK (1)**

At least two hours per week of practice in the language laboratory or in an approved fieldwork setting such as a Spanish-speaking organization, community agency or bilingual classroom. Cr/NC only. Prerequisite: concurrent enrollment in CALS 225.

**CALS 301 CALS LEADERSHIP AND MENTORING (1)**

A supervised, guided process where senior-level majors in CALS coach and mentor newly declared majors after having been coached by a senior student the previous semesters. Elective units. May be enrolled for more than once.

**CALS 310 CHICANO/LATINO ARTS AND CRAFTS WORKSHOP (1)**

Analysis of and workshop on providing Chicano Mexican and other Latino arts and crafts. Includes village and folk arts, with particular emphasis toward adapting these arts to the public school curriculum. Course projects require a public exhibit.

**CALS 314 LITERATURE IN TRANSLATION (3-4)**

A study of Latin American works of literature in English translation ranging from major authors to lesser-known texts, each of which explore identity, culture and regional perspectives. Topics can include transcultural and transnational considerations, non-western as well as contemporary culture, philosophy and religious values. Prerequisite: Completion of GE area A.

**CALS 339 LATINOS AND THE U.S. LABOR MARKET (3-4)**

This course is designed as an overview of major theories, trends and debates on the topic of Latinos and labor market inequality in the United States. Topics include urban poverty, discrimination in employment, how jobs and workers are matched, and over-arching issues as globalization and place affects the labor force. Particular attention is given to the interaction between race and class as determinants of the life chances of minorities and specifically Latinos in the United States. Satisfies upper-division ethnic studies in GE, category D1 (Individual and Society).

**CALS 350 LATINO CULTURAL STUDIES (4)**

This course focuses on the theoretical debates that have shaped the field of Chicano and Latino studies. In the tradition of Américo Paredes' *With His Pistol in His Hand*, the class will emphasize the role that counter-cultural narratives and traditions play in relation to Chicano/Latino identities and identity-based activism/politics.

**CALS 352 CHICANO/LATINO PHILOSOPHY (3-4)**

The course examines the intellectual history of the Chicano/Latino community. This includes a rich variety of ideas, belief systems, world views and philosophical perspectives derived from pre-Columbian times and later syncretized with European philosophy. The philosophical tradition of the West is seen from a different angle that provides challenging insights for students. Special attention is given to the relationship of these ideas to the ethics and values of the Chicano/Latino community within a cultural and historical milieu. A broader framework allows for the consideration of Chicano/Latino philosophy as a crossroads of Western and Asian philosophical traditions. Satisfies ethnic studies and upper-division GE, category C3 (Philosophy and Values).

**CALS 365 CHICANO/LATINO THEATRE (2)**

A review of the development of drama in literary Chicano/Latino culture from a variety of sources - anthropological, sociological and historical - as well as contemporary developments. Course includes a workshop leading to the performance of a term play, along the lines of the Teatro Campesino. May be repeated once for credit.

**CALS 366 MEXICAN FOLK AND TRADITIONAL DANCE (1-2)**

An introduction to folk and traditional dances of Mexico; this is a performance course requiring active student involvement. Basic steps and three to five ballet folklorico dances will be taught, leading to a public performance. Dances include Norteno, Jarabes de Jalisco, Jarochos de Veracruz, and one or more indigenous dances. May be repeated once for credit.

**CALS 368 CHICANO/LATINO MUSIC (4)**

This course explores Chicano/Latino musical practices with a special focus on their historical origins. The social, cultural and political significance of Chicano/Latino musical forms will also be addressed in this class. The class will acquaint students Chicano/Latino musical traditions and understand their significance within a multicultural society. Satisfies ethnic studies and upper-division GE, category C1 (Fine Arts).

**CALS 374 CHICANO/LATINO LITERATURE (3-4)**

A course designed to identify, analyze, and appreciate current literary themes and forms within the Chicano/Latino experience, including their literary antecedents, through novels, short stories, poetry, and plays. This course will focus on Chicano/Latino authors from California every fourth semester in conjunction with the California Cultural Studies Program. Satisfies ethnic studies and upper-division GE, category C2 (Ethnic Studies in World Literature). Note that CALS majors are required to enroll in the section designated for majors and related fields.

**CALS 393 CHICANO/LATINO CINEMA (4)**

An introduction to Chicano/Latino cinema, its history and its relationship with the film industry in Hollywood and in Latin America. Special attention will be given to the emergence of Latina/o-produced films, tracing the evolution of alternative aesthetic and narrative strategies. Satisfies ethnic studies and upper-division GE, category C1 (Fine Arts).

**CALS 395 COMMUNITY INVOLVEMENT PROGRAM (CIP) (1-4)**

Provides students with practical experience in school classrooms, various ethnic community organizations, health and social service agencies, including recreation programs, day care centers and senior citizen centers. One unit is equivalent to 30 hours of volunteer work per semester. Units are not applicable to the CALS major. Meets field experience requirements for the CALS waiver program.

**CALS 398 MECHA (1-2)**

Movimiento Estudiantil Chicano de Aztlan involves students in experimental projects that will orient them to problems faced by the Chicano/Latino student community and the greater Hispanic community in the campus service area.

**CALS 400 SELECTED TOPICS IN CHICANO STUDIES (1-4)**

Offered occasionally, based on student interest and faculty availability: Chicano/Latino Art Workshop; Chicano Perspectives on Mexican History; Chicana; Feminisms; La Frontera: Border Studies; and Economics and the Chicano Small Business Development: Chicano/Latino Community.

**CALS 403 CHICANO/LATINO YOUTH AND ADOLESCENTS (3-4)**

General psychological principles and theories of growth and human development as they apply to Chicano/Latino youth. Course will focus on Latino adolescents and their adjustment to the life cycle and American society and its impact on the self, peer group relations, family life, and other sources of conflict. Satisfies ethnic studies and upper-division GE, category E.

**CALS 405 THE CHICANO/LATINO FAMILY (3-4)**

Examines the Latina/o Family in a psychological and sociological context. The role of international and internal migration and acculturation on Latino family structure and functioning, contemporary gender roles and sexualities, variations in family structure, race and class identity, and the impact of economic and cultural dislocation are examined. Family violence, addiction, mental and physical health, family resilience and coping strategies are also examined. The class is designed to prepare students to work in social service environments (including family and individual therapy, public policy, social welfare, health services, community advocacy, and education), with applicable understandings of the contemporary Latino family.

**CALS 426 CHICANO/LATINO SOCIOLINGUISTIC (4)**

This course examines the role language plays in structuring social interactions among Chicanos/Latinos. The class includes an overview of the phonetics, morphology and lexicon of multiple varieties of Spanish and English, and explores issues such as dual-language acquisition, code switching, language maintenance, non-verbal communication, policy planning and bilingual education.

**CALS 432 LATINAS/OS AND GLOBALIZATION (4)**

This class will explore the effect that late-stage capitalist globalization has upon Latino workers. How do changes in the world economic system, including the advent of global free trade regions (NAFTA, FTZs) affect the composition and opportunities open to Latino populations in the United States. Examines the development of transnational economic and cultural networks as a result of globalization. Satisfies ethnic studies requirement in GE, category D5 (Contemporary International Perspectives).

**CALS 442 RACE, CLASS AND GENDER AMONG LATINOS (4)**

A course centered on the institutional, cultural and psychological components of race, class, and gender relations among Latinos and their effect on different communities. Institutional inequality, questions of assimilation and identity, attitudes, and effects of inequality on community activism and politics will be explored.

**CALS 445 CHICANO/LATINO HISTORY (4)**

An analysis of Chicano/Latino history, from the exploration and settlement of the Southwest to the present. To include an examination of such themes and topics as: the Chicano heritage, the Mexican War and Treaty of Guadalupe Hidalgo, the land question, social banditry and other forms of resistance, the Chicano in the 20th Century, and contemporary Chicano/Latino issues, organizations and movements.

**CALS 450 CHICANO/LATINO CHILDREN'S LITERATURE (3-4)**

An analysis of children's literature written about and for Chicano/Latino children both in the U.S. and abroad. Students will review and analyze the literature for style and content. Includes the study of nontraditional literature collections from the Spanish-speaking community. Prerequisite: functional Spanish language skills.

**CALS 450 CHICANO/LATINO CHILDREN'S LITERATURE (3-4)**

An analysis of children's literature written about and for Chicano/Latino children both in the U.S. and abroad. Students will review and analyze the literature for style and content. Includes the study of nontraditional literature collections from the Spanish-speaking community. Prerequisite: functional Spanish language skills.

**CALS 451 LATINA/O HUMANISMS (3-4)**

A comparative analysis of the nature and meaning of race and ethnicity's in the U.S. from its origins in Latin America to its cultural manifestations and social concepts. Discussion and study will be focussed from interdisciplinary perspectives, including the humanities, history, sociology, cultural and film studies. Satisfies upper-division standing in GE, category C4 (Comparative Perspectives). Prerequisite: Upper-division standing.

**CALS 456 SOCIOLOGY OF EDUCATION/LATINOS AND EDUCATION (4)**

This course introduces students to some key theoretical and empirical work in the sociology of education and Latinos. Because this is such a large field of research, the course will focus on the question of stratification and how systems of schooling maintain or alleviate inequality among Latino communities. We will examine classical approaches to schooling, schools as organizations, schools and their effects on social mobility, (class, race, and gender) stratification in achievement and attainment, tracking/ability grouping, theories and empirical work on social and cultural capital, school choice, and cross-national expansion of education. Our readings will cover both qualitative and quantitative studies in the field. Prerequisite: CALS 458 and upper-division standing.

**CALS 458 CALS RESEARCH AND METHODOLOGY (4)**

This course introduces majors to advanced research techniques in order to enhance their research and information literacy competencies. A brief history of the field and an overview of current debates in the discipline will also be presented. This class is a prerequisite for CALS 426, CALS 445, CALS 456 and CALS 480.

**CALS 460 CROSS-CULTURAL MATH AND SCIENCE FOR TEACHERS (3)**

Taught in bilingual format, this course helps prospective teachers prepare for the classroom, providing linguistic and cultural depth and strategies in basic science areas and math concepts including number systems and problem-solving, metrics, geometry, probability and statistics. Prerequisite: Functional Spanish language skills and completion of GE math and science GE (Areas B1 and B2) requirements.

**CALS 474 MAJOR AUTHORS IN CHICANO AND LATINO LITERATURE (4)**

A detailed study of representative authors, genre, period, or region, in consideration of socio-economic, political and cultural contexts. Requires critical discussion in class, annotated bibliography, and senior-level term paper. Not in core.

**CALS 479 CHICANO/LATINO ART HISTORY (4)**

An analysis of art as expressed in the historical culture of Chicanos and Latinos, from ancient times to the present. A cultural art history approach. Field trips. Includes a studio practicum when offered for 4 units. Satisfies ethnic studies in GE, category C1 (Ethnic Studies in the Fine Arts).

**CALS 480 LATIN AMERICAN MIGRATION TO THE UNITED STATES (4)**

This course provides a broad overview of international migration to the United States, paying particular attention to Latin American migrants. The course attempts to understand what life is like for Latinos involved in migration to and from the United States. Attention is given to the diversity of today's Latin American migrants, their social origins, their adaptation experiences and exits, and contexts of incorporation. The course also analyzes the experiences of different Latin American immigrant groups in the state of California.

**CALS 495 SPECIAL STUDIES (1-4)**

Independent study on a special topic for upper-division students. Prerequisite: completion and approval of a special studies form.

**CALS 499 INTERNSHIP (1-4)**

An Internship in Chicano and Latino Studies must combine: 1) service in a school or an agency where activity is related to the Latino community; 2) the selection of a topic for observation and study; 3) preparation of a bibliography and a reading list related to the internship activity; 4) a term paper that reflects both the internship work experience and appropriate research. The internship must be proposed and arranged ahead of time with the professor in CALS who will supervise the internship. Prerequisite: Senior status and completion of most CALS core classes.

**CALS 595 SPECIAL STUDIES (1-4)**

Directed study for graduate students. Prerequisite: completion and approval of a special studies form.

## Communication Studies (COMS)

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### COMS 200 PRINCIPLES OF MASS COMMUNICATION (4)

An introduction to the history of mass communication, the mechanics of the mass communication industries, and theories of mass communication as a social, cultural, and political phenomenon.

### COMS 201 STORY TELLING VIA VIDEO (4)

Designed for beginning video students. Assignments include, creating skits and music videos and conducting interviews using DV camcorders. Students also do a final creative project of their own.

### COMS 202 METHODS OF MEDIA CRITICISM (4)

A survey of ways to analyze mediated texts, with a focus on film, television, magazines, music, news, and advertising. Methods and concepts include semiotics, structuralism, ideology, psychoanalysis, feminism, and postmodernism.

### COMS 210 WRITING FOR THE MEDIA (4)

Introduction to a wide range of writing styles and formats, from hard news and features to press releases. Students learn to write for newspapers, magazines, television, radio, and the internet, as well as for public relations.

### COMS 240 INTRODUCTION TO PUBLIC RELATIONS (4)

An overview of the history, structure, and organization of public relations. Students also learn the basic public relations tactics of writing, presentation, event organization, and web communication.

### COMS 265 INTRODUCTION TO RADIO BROADCASTING (4)

History of broadcasting; evolution of broadcast technology; introduction to basic theories and techniques of radio broadcasting. Overview of radio station organization, programming and operation. Experience in radio program development and production techniques.

### COMS 301 MASS COMMUNICATION THEORY AND RESEARCH (4)

Intermediate-level study of the key research events that contributed to the development of communication theories, government policy, and the emergence of communication as an academic discipline. Crosslisted as SOCI 331. Prerequisites: COMS 200, 202, and Junior-level standing.

### COMS 302 MEDIA ETHICS (4)

Students analyze real-life ethical issues that media professionals face on TV, radio, newspapers, the internet, in public relations, and in the music and entertainment industries. Classroom exercises involve discussion, debate, critical thinking and reasoning, and practical application of ethical principles. Prerequisites: COMS 200 and 202.

### COMS 315 MEDIA LAW (4)

An intensive exploration of the rules and regulations governing media and communication in the United States. The focus is on the First Amendment. Students take exams, write papers, and participate in moot trials on issues of libel, privacy, copyright, obscenity, and the right to a fair trial. Prerequisites: COMS 200, 202, and Senior-level standing.

### COMS 316 ADVANCED DIGITAL FILM MAKING (4)

Intensive production for filmmakers. In fall semester, students work on biography, news, and multi-camera talk shows. In spring, students work on screenplays, scenes with actors, images for songs. Beginning students use DV camcorders and I-Movie2. Advanced students use 3-chip cameras and edit on Final Cut or Avid. Prerequisite: COMS 201.

### COMS 317 ADVANCED RADIO BROADCASTING (4)

This course encourages students in their individual interests in Radio/Sound Recording. Students will learn more about the application of sound to all aspects of the media world; from the producing or hosting of live radio shows to the use of sound in promotions and DVD production. Prerequisite: COMS 265.

### COMS 318 ADVANCED MEDIA WRITING (4)

Writing for different media, including Blogs, magazines, radio, websites, newspapers, and investigative reporting. Emphasis on development of sources, proposals, pitches, working in teams, writing in-depth features and columns on issues, trends and complex ongoing stories. Prerequisite: COMS 210 or consent of instructor.

### COMS 320 SELECTED TOPICS IN COMS (4)

Intensive study of various topics and trends in the mass media, including advertising, propaganda and persuasion, children and the media, technical and scriptwriting, environmental and international communication, and film. May be repeated for additional credit with new subject matter.

### COMS 321 INTERNATIONAL COMMUNICATION (4)

Course develops a basic understanding of current issues related to the field of international communication. Surveys readings and videos on global media (MTV, CNN, ESPN, theme parks, video games, advertising, media campaigns for social change, computer hackers, Sesame Street, etc.). Overseas job and volunteer opportunities discussed.

### COMS 322 BROADCAST JOURNALISM (4)

Introductory class on the art and craft of Journalism, print, video, and radio, by career professionals. Designed to give students a taste of real world media experience.

### COMS 323 ENVIRONMENTAL COMMUNICATION (4)

Course will focus on research, reporting skills to produce magazine articles, or video/radio documentaries on health, science, and the environment. Other assignments include press releases, profiles, memos. Lecture, videos, and field trips help to critique news, public relations, ads, PSAs, campaigns, film, television, music, and the internet on related issues. Junior standing required.

### COMS 324 SCRIPTWRITING FOR VIDEO (4)

Course focuses on fundamentals of writing professional-level scripts for video, television, and film productions. Assignments include lab work and homework producing scripts and storyboards for Public Service Announcements (PSAs), commercials, news packages, documentaries, corporate and educational training programs, and dramatic screenplays. Junior standing required.

### COMS 326 ADVANCED PRESENTATION TECHNIQUES (4)

Course involves intensive self-evaluation of both verbal and non-verbal elements of presentation. Interviews, group communications and presenting with multimedia are covered. Theories of communication are discussed as they relate to presentation styles. Junior standing required.

### COMS 327 MEDIA AND CHILDREN (4)

Students learn about the latest research in child development, media design and marketing. Students then apply these ideas to the creation of a media message for a specific age group. Junior standing required.

### COMS 328 AMERICA AT THE MOVIES (4)

An examination of the sociopolitical meanings and significance of American film from the silent era to the present. To better understand how films can potentially reflect and affect society, students read about American history and analyze dozens of films in their particular historical contexts.

**COMS 329 "REALITY" TV AND FILM (4)**

How is "reality" mediated in film and television? In this course students examine the truthfulness, ethics, and sociopolitical implications of such forms and genres as the documentary, neorealism, Dogme 95, tabloid talk shows, voyeurism/confession shows, crime shows, freak shows, and contest/game shows.

**COMS 332 SCREENING VIOLENCE (4)**

Violence in media and popular culture has been the subject of great concern and voluminous research for many years. In this course students examine the history, meaning, and real-world implications and effects of media violence, with a focus on film, television, literature, news, sports, comics toys, and video games.

**COMS 333 COMMUNICATION, POWER AND SOCIAL CHANGE (4)**

How does power operate through communication to delay or to advance social progress? Analyze history, film, documentary, news, corporate PR, government propaganda and cultural myth. Craft short messages from comic books to posters to radio or video spots. Design and get feedback for messages students create on issues of choice.

**COMS 340 ADVANCED PUBLIC RELATIONS (4)**

A hands-on class for students who are planning to work in the field of public relations. Students work as consultants with clients to develop plans for public relations campaigns. Prerequisite: COMS 240 or an introductory public relations course. Junior standing required.

**COMS 368 NEWSPAPER WRITING/EDITING (STAR) (4)**

The faculty advisor offers a comprehensive evaluation-oral and written - of the most recent edition of the campus newspaper, the STAR. Instruction is provided on a wide variety of journalism topics, from editing and reporting to ethics and law. Students are required to read the STAR and the written evaluation by the advisor. May be repeated for up to 12 units.

**COMS 369 SSU-TV (4)**

This is an essential class for students who will work in the Broadcasting Industry. Students will learn about the history, structure, and operations of local broadcasting. Students will be expected to work in a specific department of SSU-TV during the semester. May be repeated for credit up to 12 units.

**COMS 385 MEDIA LAB: RADIO (KSUN) (4)**

A media lab to develop a range of skills in the production of radio programs. Work focuses on the production of live and prerecorded pieces for KSUN, SSU's internet radio station ([www.sonoma.edu/ksun](http://www.sonoma.edu/ksun)). The lab also serves as the staff meeting of the radio station. May be repeated for up to 12 units.

**COMS 402 SENIOR SEMINAR (4)**

Students will share at least one critical analysis of a specific media message and complete a senior-level project/portfolio/study, which is the culmination of their major experience. Seniors only. Cannot be repeated for credit.

**COMS 435 SEMINAR IN MASS MEDIA (4)**

Seminar provides an opportunity to gain new insights into social problems through an intensive analysis of the role and impact of mass communication in contemporary society. Emphasis is on exploring, through a major research project, social issues that should be, but are not, fully covered by the mass media. Prerequisite: COMS 301 or SOCI 300 or SOCI 331 or consent of instructor. Crosslisted as SOCI 435.

**COMS 460 TEACHING ASSISTANT IN COMMUNICATION STUDIES (1-4)**

Intended to give students experience assisting instructors. Teaching Assistants help teach, do research, tutor students in classes. Consent of instructor and department contract required.

**COMS 470 RESEARCH ASSISTANT IN COMMUNICATION STUDIES (1-4)**

Intended to give selected students experience in the construction and implementation of a professor's research project. Consent of instructor and department contract required.

**COMS 495 SPECIAL STUDIES (1-4)**

Supervised study of a particular problem or area of interest in the media selected by the student in consultation with a sponsoring faculty member. Meetings will be arranged for discussions and progress evaluations. May be repeated for credit. Consent of instructor and Special Study 495 contract required.

**COMS 497 JOURNALISM FIELD STUDY (1-3)**

Students will travel to the national journalism conference where they will attend educational seminars in all aspects of journalism from writing, design photography to media convergence. They will attend lectures and speeches by both nationally and internationally renowned journalists and scholars. To be taken with COMS 368.

**COMS 499 MEDIA INTERNSHIP (4)**

This class provides students with an opportunity to discover how to make an effective transition from the classroom to the workplace. For a semester, individuals work in a media firm, business, newspaper, radio or TV station. On the job, students learn networking and negotiating skills. Assignments for class include: a resume, workplace lingo, self-evaluation, profile of supervisor, and album with photos and text that describe the experience. There is also an interview for a job. Seniors only. Consent of instructor, internship agreement form, and department contracts required. Can be taken for up to 12 units only.

## Computer Science (CS)

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### CS 101 INTRODUCTION TO COMPUTERS AND COMPUTING (3)

Lecture, 2 hours; laboratory, 2 hours. This course is an introduction to the concepts, techniques, uses, applications and terminology of computers, computing and networking. Emphasis is on the possibilities and limitations of computers and computing in a wide range of personal, commercial, and organizational activities. Topics include computer types, history of computing, computer organization and operation, computer languages, program development, computer applications (word processing, database, graphics, spreadsheets, etc.), basic networking and computers in society. Weekly hands-on experience with a variety of operating systems, applications and computer programming. Not applicable to the CS major. Recommended for all students. Satisfies GE, category B3.

### CS 115 PROGRAMMING I (4)

Lecture, 3 hours; laboratory, 3 hours. This course gives an overview of computer organization; arithmetic and logical expressions, decision and iteration, simple I/O; subprograms; principles of good programming style, readability, documentation, structured programming concepts; top-down design and refinements; techniques of debugging and testing. Use of the above concepts will be implemented in a standard high-level programming language. Satisfies GE, category B3. Prerequisite: GE math eligibility, or CS 101 or consent of instructor.

### CS 115W PROGRAMMING I WORKSHOP (1)

A workshop designed to be taken with CS 115. Exploration of programming concepts through problem solving in a group setting. Corequisite: CS 115.

### CS 175 INTRODUCTION TO COMPUTER GRAPHICS (3)

Lecture, 2 hours; laboratory, 2 hours. This is a first course in computer graphics hardware and software. Topics include graphics hardware, microcomputer graphics, presentation and business graphics, graphics for artists, computer mapping, CAD/CAM (drafting and environmental applications), animation, 3-dimensional graphics and desktop publishing. Students will have hands-on experience using a variety of graphics programs on microcomputers. Not applicable to the CS major. Prerequisite: previous computer course or consent of instructor.

### CS 185 SPECIAL TOPICS IN COMPUTER SCI (1-4)

This lower-division course may be repeated with different subject matter. Content will be indicated by the specific topic. Prerequisite: consent of instructor.

### CS 210 INTRODUCTION TO UNIX (1)

Laboratory, 3 hours. This course is an introduction to the use of Linux/Unix as a programming environment. Communicating with a Unix host, shells and shell commands, files and directories, Gnome desktop, jobs and processes, scripting, programming utilities (compiler, linker, debugger, make, hex dump, etc.). Prerequisites: CS 115, or consent of instructor.

### CS 215 PROGRAMMING II (4)

Lecture, 3 hours; laboratory, 3 hours. This course is a sequel to CS 115. Topics include: Pointers and dynamic allocation of storage, linked lists, an introduction to the object oriented programming (OOP) paradigm, classes and objects, encapsulation, member variables and member functions, inheritance and polymorphism, scoping, templates, iterators, and error handling techniques. Prerequisites: CS 115 and previous or concurrent enrollment in CS 210, or consent of instructor.

### CS 242 DISCRETE STRUCTURES FOR COMPUTER SCIENCE (4)

Lecture, 4 hours. This course covers fundamental mathematical concepts blended with their applications in Computer Science. Topics include: sets, functions and relations, Boolean algebra, normal forms., Karnaugh map and other minimization techniques, predicate logic, formal and informal proof techniques, relational algebra, basic counting techniques, recurrence relations, introduction to graph theory. Prerequisites: CS 115 and MATH 161, or consent of instructor.

### CS 252 INTRODUCTION TO COMPUTER ORGANIZATION (4)

Lecture, 3 hours; laboratory 3 hours. This course looks at the interface between computer hardware and software by introducing computer architecture and low-level programming. Topics to be covered include: data representations, digital logic, combinational and sequential circuits, computer system organization from the machine language point of view, and assembly language implementation of high-level constructs. Prerequisites: CS 210 and CS 242, or consent of instructor.

### CS 285 SELECTED TOPICS IN COMPUTER SCIENCE (1-4)

This lower division course may be repeated with different subject matter. Content will be indicated by the specific topic. Prerequisite: as indicated in the specific topic description or by consent of instructor.

### CS 315 DATA STRUCTURES (4)

Lecture, 3 hours; laboratory, 3 hours. This course introduces the concept of the organization of data into different structures to support the efficient implementation of computer algorithms. The emphasis of the course is on the internal representation of the elementary and intermediate data structures, their time and space requirements, and their applications. A second component of the course is the study of more advanced features of object oriented programming. Prerequisite: CS 210, CS 215 and CS 242, or consent of instructor.

### CS 340 COMPUTER SECURITY AND MALWARE (3)

Lecture, 3 hours; laboratory, 2 hours. Current methods for increasing security, protecting privacy, and guaranteeing degrees of confidentiality of computer records; ensuring computer installation safety; protecting software products; preventing and dealing with crime; value systems, ethics, and human factors affecting use and misuse of computers. Discussion of recent technical, legal, and sociopolitical issues influencing computer security problems, with an emphasis on malware. Prerequisites: CS 215 and CS 252, or consent of instructor.

### CS 349 PROBLEM SOLVING IN A TEAM ENVIRONMENT (1)

Laboratory, 2 hours. This course focuses on problem solving and program development in a team programming environment. Topics include: techniques for problem analysis and algorithm design, rapid implementation and pair programming methods, use of standard container classes and library functions. Different types of problems will be selected each semester. May be repeated for credit. A maximum of 3 units can be applied to the Computer Science major. Prerequisite: CS 315 or consent of instructor. SSU students taking this course participate in regional and national programming competitions.

### CS 351 COMPUTER ARCHITECTURE (4)

Lecture, 4 hours. This course is a sequel to CS 252 and includes the following topics: Instruction set design; stages of instruction execution, data and control path design; CISC, RISC stack; pipelining; program optimization techniques, memory hierarchy: cache models and design issues, virtual memory and secondary storage; I/O interfacing; advanced topics to include some of the following: parallel architectures, DSP or other special purpose architecture, FPGA, reconfigurable architecture, asynchronous circuit design. Prerequisites: CS 215 and CS 252, or consent of instructor.

**CS 355 DATABASE MANAGEMENT SYSTEMS DESIGN (4)**

Lecture, 4 hours. This course focuses on the theoretical as well as the practical aspects of modern database systems. Topics include the study of the entity-relationship (E/R) model, relational algebra, data normalization, XML as a semi-structured data model, data integrity and database administration. Current tools and technologies are used to create and manipulate sample databases. Prerequisite: CS 215 or consent of instructor.

**CS 360 OBJECT ORIENTED PROGRAMMING (3)**

Principles of object-oriented programming, including encapsulation, inheritance, polymorphism, and design patterns. Specific applications are developed in one or more object-oriented programming languages and will cover the use of application frameworks and graphical user interfaces based on object-oriented principles. Prerequisites: CS 215, or consent of instructor.

**CS 365 COMPUTER NETWORKING AND THE INTERNET (3)**

Lecture, 2 hours; laboratory, 3 hours. This course introduces the theory and practice of computer networking. Network hardware implementations of local area networks, internet wide area networks, telephone networks, and wireless networks are investigated with hands on exercises configuring current network devices with practical and theoretical treatment of device limits. Network software implementations of switches and routers, peer to peer networking, and hosted applications are investigated. Operating system interfaces and distributed networking software are studied to illustrate the current practice and future directions for computer networks. Prerequisites: CS 215 and CS 252, or consent of instructor.

**CS 370 SOFTWARE DESIGN AND DEVELOPMENT (4)**

Lecture, 4 hours. Techniques of software design and development. Software life-cycle, requirements, formal specification, metrics, design, functional and structural testing, rapid prototyping, complexity, version control, and team management. Software metrics, tools for component based software development. Team-based, agile and scrum methodologies emphasized. Prerequisite: CS 215 or consent of instructor.

**CS 375 COMPUTER GRAPHICS (3)**

An introduction to computer graphics. Survey of the fundamental algorithms and methodologies: polygon fill, line-drawing, antialiasing, geometric transformations, viewing and clipping, spline representation, occlusion and visible surface detection, illumination, texturing, color models, rendering, shaders, animation, and emerging techniques. Prerequisites: CS 215 and MATH 161, or consent of instructor.

**CS 380 ETS MAJOR FIELD TEST (1)**

The focus of this course is preparation for the Major Field Test in Computer Science. Students will review material in the basic knowledge areas of computer science including: discrete structures, programming, algorithms and complexity, systems, software engineering, and information management. The course will culminate with students taking the Major Field Test in Computer Science administered through Educational Testing Services. This course is intended for students whom have completed the majority of required coursework in the CS major and are within one semester of graduation.

**CS 385 SELECTED TOPICS COMPUTER SCI (1-4)**

This course may be repeated with different subject matter for credit in the CS major. Prerequisites: upper-division standing with consent of a CS advisor and consent of instructor.

**CS 390 COMPUTER SCIENCE COLLOQUIUM (1)**

Series of lectures on current developments in computer science. May be repeated for credit; a maximum of 3 units can be applied to the CS major; students will be required to attend all presentations, take notes and research each of these presentations. Contact the department for specific information. Cr/NC only.

**CS 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

CIP involves students in basic community problems. The most common task for a CS student will be tutoring at a local school. Not applicable to the CS major. Prerequisites: CS 115 and consent of instructor.

**CS 415 ALGORITHM ANALYSIS (4)**

Lecture 4 hours. This course provides a systematic approach to the design and analysis of algorithms with an emphasis on efficiency. Topics include algorithms for searching and sorting, hashing, exploring graphs, integer and polynomial arithmetic. Foundations in recurrence relations, combinatorics, probability, and graph theory as used in algorithm analysis are covered. Standard design techniques such as divide-and-conquer, greedy method, dynamic programming, heuristics and probabilistic algorithms along with NP-completeness and approximation algorithms are included. Prerequisite: CS 315, or consent of instructor.

**CS 450 OPERATING SYSTEMS (4)**

Lecture, 4 hours. This course covers the fundamental concepts of operating system design and implementation, the study of problems, goals, and methods of concurrent programming, and the fundamentals of systems programming. Topics include resource-management, process and thread scheduling algorithms, inter-process communication, I/O subsystems and device-drivers, memory management include virtual memory, segmentation, and page-replacement policies. These topics will be covered in theory and in practice through the study of the source-code of a working operating system. Prerequisites: CS 252 and CS 315, or consent of instructor.

**CS 452 COMPILER DESIGN AND CONSTRUCTION (3)**

Lecture, 2 hours; laboratory, 2 hours. Application of language and automata theory to the design and construction of compilers. Lexical scanning, top-down and bottom-up parsing; semantic analysis, code generation; optimization. Design and construction of parts of a simple compiler using compiler generation tools. Prerequisite: CS 215 and 252, or consent of instructor.

**CS 454 THEORY OF COMPUTATION (4)**

Lecture, 4 hours. Overview of various kinds of computability, unsolvability, and decidability. The P vs NP problem. Abstract mathematical models of computing devices and language specification systems with focus on regular and context-free languages. Classification of computer-solvable problems. Prerequisite: CS 315, or consent of instructor.

**CS 460 PROGRAMMING LANGUAGES (4)**

Lecture 4 hours. This course provides a survey of the syntactic, semantic, and implementation features of functional, procedural, object-oriented, logic and concurrent programming languages. Prerequisites: CS 252 and CS 315, or consent of instructor.

**CS 465 DATA COMMUNICATIONS (3)**

Lecture, 2 hours; laboratory, 3 hours. The ISO reference model, theoretical basis for data communications, data transmission theory and practice, telephone systems, protocols, networks, internetworks, with examples. Prerequisites: CS 351, or consent of instructor.

### **CS 470 ADVANCED SOFTWARE DESIGN PROJECT (3)**

Lecture, 3 hours. This course is a project based course designed to provide a "real world, team oriented" capstone experience for computer science majors. Coursework will be organized around large programming projects. The content of the projects may vary depending on the interests of the instructor and may include industry, government, non-profit organization, or other affiliations. Prerequisites: CS 315, CS 370, and senior standing in the major, or consent of instructor.

### **CS 480 ARTIFICIAL INTELLIGENCE (3)**

This course is a survey of techniques that simulate human intelligence. Topics may include: pattern recognition, general problem solving, adversarial game-tree search, decision-making, expert systems, neural networks, fuzzy logic, and genetic algorithms. Prerequisite: CS 315 or consent of instructor.

### **CS 495 SPECIAL STUDIES (1-4)**

This course is intended for students who are doing advanced work in an area of computer science (e.g., a senior project). Prerequisite: an upper-division CS course in the area of interest and consent of instructor.

### **CS 496 SENIOR SEMINAR (1-4)**

Discussion of a topic of current importance in computer science. Independent student projects or oral presentations may be required. Prerequisite: senior standing in CS curriculum.

### **CS 497 INTERNSHIP (1-3)**

Student projects conceived and designed in conjunction with an off-campus organization or group. The internship is intended to provide on-the-job experience in an area of computer science in which the student has no prior on-the-job experience. Computer hardware or computer time required for the internship, as well as regular supervision of the internship, must be provided by the off-campus organization. Prerequisite: student must be within 30 units of completion of the CS major. May be taken Cr/NC only. No more than 3 units can be applied to the CS major.

## **Computer and Engineering Science (CES)**

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### **CES 400 LINEAR SYSTEMS THEORY (3)**

Lecture, 3 hours. Analysis of linear time-invariant systems, correlation, convolution, impulse response, complex variables, Fourier series and transform, sampling, filtering, modulation, stability and causality, feedback and control systems, Laplace and Z-transform, fast Fourier transforms. Prerequisite: MATH 241 or consent of instructor. (Crosslisted with MATH 430 and ES 400).

### **CES 430 PHOTONICS (3)**

Lecture, 3 hours. Lasers, diode lasers and LED's, fiber optics, optical radiation detectors. Prerequisites: A course in modern Physics (such as PHYS 314) and electromagnetism (such as PHYS 430). (Crosslisted with PHYS 445 and ES 445).

### **CES 432 PHYSICS OF SEMICONDUCTOR DEVICES (3)**

Lecture, 3 hours. Semiconductor materials, crystal structure and growth, energy bands and charge carriers, conductivity and mobility; metal semiconductor and p-n junctions, p-n junction diodes, bipolar junction transistors, field effect transistors, CCD's, photonic devices and integrated circuits. Projects in photolithography; conductivity and contact resistance measurements; I-V and C-V characteristics of diodes; characterization of transistors may be assigned. Prerequisites: ES 230 or PHYS 314 or consent of instructor. (crosslisted with PHYS 475 and ES 432).

### **CES 440 INTRODUCTION TO NETWORKING AND NETWORK MANAGEMENT (3)**

Lecture, 2 hours; laboratory, 3 hours. The ISO reference model, theoretical basis for data communications, data transmission theory and practice, telephone systems, protocols, networks, internetworks, with examples. Prerequisites: ES 440 or consent of instructor. (Crosslisted with ES 465).

### **CES 490 SELECTED TOPICS IN CES (1-3)**

Special topics to introduce new emerging fields, provide foundation for advanced graduate level courses or augment other courses in computer and engineering science. Prerequisite: consent of instructor.

### **CES 494 DIRECTED READINGS (1-3)**

Independent study under a faculty member. The proposal must be approved by the graduate advisor if the course is to apply towards degree requirements. Prerequisite: consent of instructor.

### **CES 500 QUEUING AND TRANSFORM THEORY (3)**

Lecture, 3 hours. Review of probability theory, fundamentals of transform theory, Fourier and Z-transforms. Markovian and discrete time queuing systems, single and multi server queuing networks and their applications. The course may require significant lab and/or project activity. Prerequisites: ES 314 or consent of instructor.

### **CES 506 OPERATIONS MANAGEMENT (3)**

Production/operations management of manufacturing and service operations. Topics include forecasting and scheduling, material requirements planning, and quality assurance. Additional tools include inventory control, project management, and product development. Modern techniques such as Supply Chain Management, e-business, Just-in-Time, and Total Quality Management are illuminated. Crosslisted with BUS 516.

**CES 510 INTELLIGENT SYSTEMS DESIGN (3)**

Lecture, 3 hours. Introduction to adaptive systems: neural networks, genetic algorithms (GAs), fuzzy logic, simulated annealing, tabu search, etc. Specific topics include perceptions, backpropagation, Hopfield nets, neural network theory, simple GAs, parallel GAs, cellular GAs, schema theory, mathematical models of simple GAs, and using GAs to evolve neural networks. Prerequisites: ES 314 and CES 400, or consent of instructor.

**CES 512 THEORY OF SOFTWARE SYSTEMS (3)**

Lecture, 3 hours. Review of data structures and basic algorithms for sorting, searching and string processing. Basics of logic, formal systems, grammars and automata. Applications to some of the following areas: design of language processing tools (editor, translator etc.), software specification, testing and verification, non-numerical problem solving. The course may require significant lab and/or project activity. Prerequisite: ES 314 or consent of instructor.

**CES 514 DATA MINING (3)**

Lecture, 3 hours. Introduction to data models, data warehousing, association-rule mining, searching the Web, Web Mining: Clustering. AI techniques (neural networks, decision trees), applications and case studies. The course may require significant lab and/or project activity. Prerequisite: ES 314 or consent of instructor.

**CES 516 HIGH-PERFORMANCE COMPUTING (3)**

Lecture, 3 hours. Algorithmic tools and techniques for problems hard to solve on a standard uniprocessor model such as problems involving large data sets or real-time constraints; development of computational models to analyze the requirements and solutions and special hardware based solutions; case studies to illustrate the developed models, tools and techniques. The course may require significant lab and/or project activity. Prerequisite: ES 314 or consent of instructor.

**CES 520 EMBEDDED SYSTEMS (3)**

Lecture, 3 hours. Three major topics covered in this course are: controlling specialized I/O devices with particular attention to bit patterns and priority interrupts; waveshapes and measurement tools, both hardware and software; and real time operating systems. Prerequisites: ES 230, 231 and 310 or consent of instructor.

**CES 522 VLSI DESIGN (3)**

Lecture, 3 hours. IC technology review; hardware description languages and describing hardware using one of the languages, modern VLSI design flow; circuit partitioning; clustering. Floorplanning; placement; global routing; area efficient design, area-time trade-offs. The course may require significant lab and/or project activity. Prerequisite: CES 530 or consent of instructor.

**CES 524 ADVANCED COMPUTER ARCHITECTURE (3)**

Lecture, 3 hours. Concept of advanced computing architectures, pipelining; multiprocessing and multiprogramming. Single and multi-stage interconnection networks, applications/algorithms for parallel computers; local and system business architectures; CPU and computer system performance analysis. The course may require significant lab and/or project activity. Prerequisite: ES 310 or consent of instructor.

**CES 530 ANALOG AND DIGITAL MICROELECTRONICS (3)**

Lecture, 3 hours. Introduction to analog/digital integrated circuits, bipolar and MOS transistor models, analysis and design of monolithic operational amplifiers, frequency response, non-linear circuits and CMOS and Bipolar Logic Circuits. The course requires lab and/or project activity. Prerequisites: ES 230-231 and CES 432 or consent of instructor.

**CES 532 ADVANCED PHOTONICS DEVICES (3)**

Lecture, 3 hours. Optical resonators, interaction of photons with materials, LEDs, laser diodes, optical amplifiers, optical noise, photoconductors, electrooptic modulators, photonic switches, nonlinear optical materials and devices. The course requires lab and/or project activity. Prerequisite: CES 430 or equivalent.

**CES 540 DIGITAL DATA TRANSMISSION (3)**

Characteristics of base-band and bandpass channels, optimum signaling sets, and receivers for digital communications; effect of noise and intersymbol interference on probability of error; channel capacity; introduction to phase-locked loop analysis for timing and carrier synchronization. Prerequisites: CES 400 and CES 440 or consent of instructor.

**CES 542 DIGITAL SIGNAL PROCESSING (3)**

Lecture, 3 hours. Time/frequency analysis of discrete-time signals and systems. Fast implementations of the DFT and its relatives. IIR and FIR digital filter design, implementation and quantization error analysis. Decimation, interpolation, and multirate processing. Prerequisite: CES 400 or consent of instructor.

**CES 543 OPTICAL FIBER COMMUNICATIONS (3)**

Lecture, 3 hours. Lightwave fundamentals, optical fiber as transmission media, losses and bandwidth, fiber cables. Optical sources, detectors. Optical components such as switches, access couplers, wavelength multiplexers and demultiplexers. Analog and digital transmission techniques, line coding techniques, optical heterodyne receivers, thermal and shot noise, bit error rates, optical transmission system design. Optical T-carrier systems and SONET, future directions. The course may require significant lab and/or project activity. Prerequisite: PHYS 230-231 and CES 440, or consent of instructor.

**CES 544 WIRELESS COMMUNICATION (3)**

Lecture, 3 hours. Introduction to mobile/wireless communication systems, cellular communication, data transmission and signaling, noise and intelligence, analog and digital techniques, multiple-access architecture. The course requires lab and/or project activity. Prerequisites: ES 230-231 and CES 440, or consent of instructor.

**CES 546 DATA COMPRESSION (3)**

Lecture, 3 hours. Information theory, models, lossless compression (statistical, dictionary, static, dynamic, Huffman, arithmetic, context-modeling), lossy compression (scalar quantization, vector quantization, differential encoding, subband transform, predictive), compression standards (JPEG, MPEG). Prerequisites: ES 314 or consent of instructor.

**CES 547 DIGITAL SWITCHING: TECHNIQUES AND ARCHITECTURES (3)**

Lecture, 3 hours. Review of switching techniques, synchronous and asynchronous transfer modes (i.e., STM and ATM) and various switch architectures. Multi rate and multipoint-to-multipoint switching, ATM switching, signaling and call set-up, ATM switch-architectures and their performance evaluation, multicasting techniques. VLSI implementation considerations, future directions. The course may require significant lab and/or project activity. Prerequisites: MATH 345, ES 230-231 and CES 440 or consent of instructor.

**CES 550 INTEGRATED DIGITAL NETWORKS (3)**

Lecture, 3 hours. Information types and signals, definitions of services and integration, narrow ISDN and frame relay protocols, broadband ISDN concept and protocol. Integrated environment and ATM, principles of SONET and ATM transmission, broadband ATM networking, future trends. The course may require significant lab and/or project activity. Prerequisite: CES 440 or consent of instructor.

**CES 552 NETWORK ARCHITECTURE AND PROTOCOLS (3)**

Lecture, 3 hours. ISO model, review of the physical and data link layers, network layer and routing including for internet, multicast routing, TCP and UDP protocols and their characteristics, performance and limitations, TCP/IP stack, applications such as FTP, e-mail and DNS, voice over IP. The course may require significant lab and/or project activity. Prerequisite: CES 440 or consent of instructor.

**CES 554 BROADBAND ACCESS TECHNOLOGY (3)**

Lecture, 3 hours. Review of ISDN and B-ISDN Protocols, digital subscriber loops, digital modems. The xDSL technology, xDSL family of protocols, ADSL standardization, its architecture, operation, implementation and management, ATM, TCP/IP, Ethernet transmissions using ADSL, optical access. The course may require significant lab and/or project activity. Prerequisite: CES 440 or consent of instructor.

**CES 558 MULTICASTING ON THE INTERNET (3)**

Lecture, 3 hours. Multicasting fundamentals, multicast routing algorithms, IP multicast, architecture and operation of MOSPF, PIM, CBT, OCBT, HDVMP, HPIM, BGMP, and, Mbone protocols. Real-time transport protocol and scalable reliable multicast, reliable multicast transport protocols. Multicasting in ATM networks, IP multicast over ATM, future directions. The course may require significant lab and/or project activity. Prerequisite: CES 552 or consent of instructor.

**CES 561 COMPUTATIONAL TECHNIQUES FOR BIOMOLECULES (3)****CES 562 BIOMEDICAL INSTRUMENTATION (3)****CES 563 BIOPHOTONICS (3)****CES 564 MEDICAL IMAGE PROCESSING (3)****CES 590 SELECTED TOPICS IN COMMUNICATIONS AND PHOTONICS (3)**

Special topics to augment regularly scheduled graduate courses in communications and photonics will be presented. Prerequisites depend on subject material.

**CES 591 INTERNSHIP (1)**

Internship will be done at an industry, R&D laboratory, government organization or a laboratory or center at an academic institution to gain professional training, teamwork experience, communication skills and project opportunities that will prepare students for a successful career in the real world.

**CES 592 SELECTED TOPICS IN HARDWARE AND SOFTWARE SYSTEMS (3)**

Special topics to augment regularly scheduled graduate courses in hardware and software systems will be presented. Prerequisites depend on subject material.

**CES 592B SELECTED TOPICS IN BIOENGINEERING (3)**

Lecture: 3 hours; laboratory: 0 hours. Special topics to augment regularly scheduled graduate courses in bioengineering will be presented. Prerequisite: consent of the instructor.

**CES 593 LAB AND TECH REPORT EXPERIENCE (3)**

Lecture, 1 hour, laboratory, 6 hours. In this course, students will learn to operate state-of-the art equipment in at least 6 laboratories, perform experiments and write lab reports. In addition, students will write a technical report on a state-of-the art topic within the scope of the master's program of at least 3000 words excluding figures and tables. (The course cannot be taken to meet 30-unit requirement under thesis or project option unless approved by the Program Director). Prerequisite: permission of student's advisor.

**CES 594 DIRECTED READINGS (1-3)**

Independent study under a faculty member: The proposal must be approved by the graduate advisor if it is to apply towards degree requirements. Prerequisite: consent of instructor.

**CES 595 DESIGN PROJECT (1-3)**

The project plan, timetable, necessary resources and the expected outcome must be approved by a faculty project advisor and the program advisor at least one semester before taking the course. Prerequisite: Admission of candidacy for the Master's degree and approval of the faculty advisor.

**CES 596 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or design project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisites: Consent of faculty thesis/project advisor.

**CES 597 GRADUATE SEMINAR (1)**

Series of lectures presented by experts from academia and industries.

**CES 598 COMPREHENSIVE EXAMINATION (1)**

In this four-hour examination, the student's overall understanding of important concepts of the core courses and the main subjects of each track will be tested. Prerequisite: Advancement to candidacy for the master's degree and approval of the graduate advisor.

**CES 599 RESEARCH AND THESIS (1-6)**

Prerequisites: Admission of candidacy for the master's degree and approval of the thesis advisor.

## **Counseling (COUN)**

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### **COUN 496 MIGRANT-EDUCATION ADVISOR PROGRAM (1-4)**

School-based counseling experience supervised by Counseling department faculty. Under the guidance of the instructor, undergraduate students advise, counsel, and mentor K-12 students with a migrant background. Prerequisite: participation in the Migrant Education Advisor Program (MEAP) and consent of the instructor.

### **COUN 501 THEORY AND PRACTICE: PROFESSIONAL COUNSELOR (4)**

This course surveys the roles and responsibilities of professional counselors, including an examination of students' professional identity development. Different approaches to counseling intervention (i.e., psychodynamic, affective/experiential, cognitive-behavioral, narrative approaches, and systemic theories) are compared and contrasted relative to the goals of counseling, the factors involved in helping individuals and families change, and the practitioner's role in the process. Culturally appropriate use of theories and interventions in the context of human development is emphasized. Professional identity development is further enhanced through exposure to the history and philosophy of the counseling profession, including professional roles, functions, and relationships with other human service providers. This overview also acquaints counseling students with a) relevant professional organization; b) the various credentialing, certification, licensure, and accreditation standards that may impact practice; c) advocacy processes to benefit clients; and d) ethical and legal standards of the various counseling disciplines.

### **COUN 502A ADULT DEVELOPMENT: INDIVIDUAL FAMILY AND CAREER (3)**

This course is designed to provide students with an overview of theories for understanding the processes of adult development and how to incorporate this understanding into counseling interventions. Students will discuss clinical cases within the context of adult transitions and life events, including long term care concerns and elder abuse. Gender, sexual orientation, and ethnicity issues will be integrated into both didactic and experiential learning. Changes in career, interpersonal relationships, and family structure and dynamics will be examined over the life span with an emphasis on their interdependence.

### **COUN 502B CAREER DEVELOPMENT IN ADULTHOOD (1)**

COUN 502B focuses more specifically on career counseling, including theories of career development, knowledge of interviewing, assessment, and print and computer-based career counseling materials. Further considered are how diversity issues influence personal needs, values, aptitudes, abilities, and interests, which, in turn, affect career and educational choices.

### **COUN 503 SEM: DYNAMICS OF INDIVIDUAL BEHAV (3)**

A course designed to cover psychopathology and sociopolitical-related issues of diagnosis and treatment. Attention is given to: (1) understanding the variability of psychopathology in community counseling settings; (2) the application of evaluation methods and diagnostic classification systems of the DSM-IV-TR; (3) development of appropriate treatment plans; and (4) the relationship of class, gender, and ethnic background to diagnosis and treatment.

### **COUN 510A SEM: COUNSELING PRE-PRACTICUM (4)**

This course helps students to develop necessary basic multiculturally-competent counseling skills to prepare them for field based training experiences in a wide variety of settings. Training is done through the use of videotape feedback and in-class practice demonstrations involving personal disclosure, role-play, and group and instructor feedback. This course is normally taken in the first semester by new students. Cr/NC only.

### **COUN 510B COUNSELING PRACTICUM (4)**

This course provides students with an opportunity to continue the development of multiculturally-competent counseling skills necessary for advanced field training during the 514A/B field experience/internship sequence. There are different sections for Community Counseling/MFT and School Counseling/PPS students: Community Counseling/MFT students see clients in a structured fashion on campus and School Counseling/PPS students work in school settings under the instructor's supervision. Cr/NC only. Prerequisite: COUN 510A.

### **COUN 511 SEMINAR: K-12 ACADEMIC COUNSELING AND CAREER DEVELOPMENT (4)**

An introductory course in K-12 academic counseling and career development. Course content includes the foundations of learning theory, youth/lifespan career development and academic guidance models, and print/internet based academic/career counseling materials. The course explores the impact of personal needs, values, cultural variables, aptitudes, abilities, and interests on academic progress and career/vocational choices.

### **COUN 512 SEMINAR: THEORY AND PRACTICE OF GROUP COUNSELING (4)**

This didactic and experiential course provides students with an introduction to the concepts and practices of group counseling, supplemented by lectures and readings. The dynamics and procedures involved in working with groups will be examined with students functioning as both group participants as well as group leaders. The course also examines stages of group formation, confidentiality and trust issues, co-counseling in groups, group dynamics and structure, and basic group counseling skills. Cultural factors related to group work are identified didactically and experientially. Practical approaches to group counseling include psycho-educational groups, interpersonal problem-solving groups, and task/work groups, among others. Prerequisite: COUN 510A or consent of instructor.

### **COUN 513 SEMINAR: RESEARCH AND EVALUATION IN COUNSELING (4)**

A survey of the principles of research design as applied to community and school-related issues and settings, with emphasis on evaluation of human service programs. Students will also develop and complete a culturally sensitive written mental health or school guidance grant proposal under faculty supervision. Prerequisite: demonstrated competence in basic statistical analysis and COUN 525.

### **COUN 514A SUPERVISED INTERNSHIP/FIELD EXPERIENCE (4)**

This seminar provides a group discussion and supervision format in conjunction with advanced field based training, which may be in school settings (PPS students) or in community counseling settings (MFT students). The class meetings are designed to supplement the individual supervision received by site supervisors, and the goal of the seminar is to help students develop a model of professional functioning through the integration of theory, pragmatic strategies, and personal development. Aspects of cultural diversity that influence counseling practice in community and school settings will be addressed didactically and experientially. Integral to this experience is the exchange of feedback and support among seminar participants. Prerequisites (Community Counseling/MFT): 510A/B, 501, and additional courses. Prerequisites (School Counseling/PPS): 510A/B, 520, (COUN 501 highly recommended). Cr/NC only.

**COUN 514B SUPERVISED INTERNSHIP/FIELD EXPERIENCE (4)**

This seminar provides opportunities to build upon and consolidate the field based training skills addressed in COUN 514A. A group discussion and supervision format continues to provide supplemental support relative to counseling field work in school settings (School Counseling/PPS students) or in community counseling settings (MFT students). The class meetings are designed to supplement the individual supervision received by site supervisors, and the goal of the seminar is to help students develop a model of professional functioning through the integration of theory, pragmatic strategies, and personal development. Aspects of cultural diversity that influence counseling practice in community and school settings will be addressed didactically and experientially. Integral to this experience is the exchange of feedback and support among seminar participants. Students will complete a culminating case study project, with both oral and written components. Prerequisites (Community Counseling/MFT): 510A/B, 514A, and additional courses. Prerequisites (School Counseling/PPS): 510A/B, 514A, 520, (COUN 501 highly recommended.) Cr/NC only.

**COUN 520 INTRODUCTION TO SCHOOL COUNSELING (4)**

This course provides a conceptual overview and orientation to the practice of school counseling. Emphasis will be placed on school counseling programs as critical components of the education enterprise, the ASCA national model of school counseling, and the expanding and changing role of the school counselor.

**COUN 521 SEM: PUPIL PERSONNEL SERVICES - CONCEPTS AND ORGANIZATION (4)**

A seminar in organizing, supervising, and administering comprehensive service Pupil Personnel Programs in elementary and secondary schools; legal and financial aspects, as well as laws affecting children and child welfare are covered. Students learn how to create a developmental school counseling program that is an integral part of the entire educational program in the school. Prerequisite: COUN 520.

**COUN 523 WORKING W/FAMILIES IN SCHOOL SETTING (4)**

This course has as its focus a study of family systems and how they impact and interact with all the systems that involve the child including educational and cultural systems. Basic to this is the study of the students' own family of origin and its impact on the student. Each student is required to lead or co-lead a parent education group in a school setting during the last half of the course. Prerequisite: COUN 510A/B is required.

**COUN 524 COUNSELING CHILDREN AND ADOLESCENTS (4)**

This course provides an overview of the theories and techniques of child and adolescent counseling with a focus on youth development in a socio-cultural context. Counseling interventions used in schools and common concerns of school-aged students are emphasized. Methods for establishing rapport, goal setting, and case formulation are highlighted. Special emphasis will be placed on applying theory to practice in a developmentally appropriate manner.

**COUN 525 PSYCHOLOGICAL AND EDUCATIONAL ASSESSMENT (2)**

This primarily didactic course provides students an overview of the nature and rationale of psychological measurement, both individual and group, with emphasis on its utility in community and/or school settings. Attention is given to both limitations in and justification for the measurement of human characteristics, including culturally-based relevance and appropriateness. Students will have an opportunity to practice the selection, administration, scoring, and interpretation of relevant assessment instruments. Class fee required at time of registration.

**COUN 526 GROUP COUNSELING IN THE SCHOOLS (4)**

This didactic and experimental course examines the concepts and practices unique to group counseling in the schools. Psycho-educational strategies in the school settings are emphasized. Particular attention is given to processes and challenges involved in the implementation of these strategies; cultural context, effectiveness and evaluation issues will be explored. The dynamics and procedures involved in working with small and large groups will be studied with members as participants and as leaders. Prerequisite: COUN 510A (Pre-practicum) and COUN 520.

**COUN 527 LAW AND ETHICS FOR SCHOOL COUNSELORS (3)**

This course examines the legal and ethical responsibilities of the school counselor. Course topics include; educational counseling, child abuse reporting, confidentiality, record keeping, and attendance and truancy laws. This course also provides an overview of special education law, including: the different federal categories of disability, Individualized Educational Program (IEP) procedures, suspension and expulsion of students with disabilities, and Section 504 Accommodation Plans.

**COUN 528A CONSULTATION (3)**

This course provides a general framework for understanding and practicing culturally and contextually sensitive consultation, collaborative problem solving, and systems level intervention in educational settings. An exploration of the stages of consultation and the major models of consultation are covered. Students will gain experience in the delivery of consultation services.

**COUN 528B CRISIS INTERVENTION (1)**

This course focuses on prevention, response, and recovery during a crisis, and the counselor's role as part of a school-based crisis intervention team. Crises include school violence, accidents, and the death or suicide of a student or faculty member. Maintaining the safety and security of the school community emphasized.

**COUN 535 SEMINAR: DEVELOPMENT AND CLINICAL ISSUES WITH CHILDREN (4)**

This course offers a developmental psychology perspective on culturally sensitive counseling interventions appropriately undertaken with children and adolescents. Course objectives include: (1) providing students with an introduction to basic intervention strategies for counseling children and adolescents taking into account cultural and socio-economic influences; (2) familiarizing students with special topics, e.g., impact of divorce on children, child maltreatment, effects of domestic violence; and (3) consideration of family, peer, school, and community contexts in treatment planning (i.e., integrative case formulation) with children and adolescents.

**COUN 540 SEMINAR: MARRIAGE AND FAMILY COUNSELING (4)**

This course offers a foundation for understanding couple and family relationships by providing an overview of historical and contemporary models of theoretical conceptualization, assessment and intervention, including ways to work with families reflecting diversity. Attention is devoted to important legal and ethical considerations unique to working with families and couples; also included are assessment tools, crisis intervention (including domestic violence), and treatment planning. Prerequisites: COUN 510A or consent of instructor.

**COUN 545 SEMINAR: LAW AND ETHICS FOR THE COUNSELOR (3)**

This course is designed to clarify the legal and ethical responsibilities of the community counselor. Legal standards related to counseling practice will be surveyed, including issues related to dissolution; child care, custody, and abuse; confidentiality; involuntary hospitalization; mandatory reporting requirements; detection, assessment, and treatment of domestic violence; and other issues related to the relationship between law and counseling. Ethical standards, which often overlap with legal standards, include cultural considerations as they impact counseling practice.

**COUN 570 SEM: CROSS-CULTURAL AWARENESS IN COUN (3)**

This course is designed to provide students with an understanding of how the different forms of diversity (ethnicity, culture, sexual orientation, socioeconomic status, age, disability, religion and gender) can affect counseling processes. Students will identify and explore their own unique ethnic and cultural world view and see how it affects their counseling approaches in both community and school counseling settings. Students will also become knowledgeable about various minority groups in the United States and how majority culture influences the minority individuals' daily lives and their responses to counseling. The seminar will address cross-cultural aspects of counseling children, youth, and adults.

**COUN 580A RELATIONSHIP COUNSELING (3)**

This course explores relationship counseling from a variety of theories accompanied by their treatment approaches. An ecological approach to couples' functioning will be advocated with the result that counseling interventions will reflect the pluralistic needs of couples who are often embedded in complex social systems (including the legal system, the health system, among others). Issues such as domestic violence, developmental challenges, parenting/step-parenting, infertility, and extramarital engagements will be discussed. Cross-cultural perspectives and ethical issues will be integrated into all discussions. Prerequisites: Concurrent enrollment in COUN 580B, 510A or consent of instructor. COUN 540 is recommended.

**COUN 580B SEXUALITY COUNSELING (1)**

This course provides students with knowledge and skills about counseling adults and couples about sexuality issues. Included are the physiological, psychological, and socio-cultural variables associated with sexual identity, sexual behavior, sexual disorders, sexual function and dysfunction, sex roles, gender identity, trauma and abuse, and aging. A biopsychosocial approach will be taken in working with a wide variety of sexual concerns; ethical and legal considerations in working with sexuality issues will be addressed as will issues of transference and counter-transference in working with these sensitive and intimate issues. Concurrent enrollment in COUN 580A.

**COUN 581 INTRODUCTION TO CHEMICAL DEPENDENCY (1)**

A survey course designed to provide a broad conceptual base regarding the major dimensions of dependence upon drugs/alcohol. Emphasis is on practical issues from the standpoint of the family and the community. The course explores historical and current modes of treatment, intervention, and prevention of alcoholism and alcohol-related problems. Students are expected to have a basic understanding of psychopathology and family systems prior to enrollment. This course is designed to provide specific instruction in alcoholism and other chemical substance dependency, and is designed to meet the requirements issued by the Board of Behavioral Sciences, State of California.

**COUN 582A PSYCHOPHARMACOLOGY FOR COUNSELORS (2)**

This didactic course explores basic principles and applications of psychopharmacology in the mental health field. Emphasis is paid to neurotransmitter systems in the nervous system, principles of drug action, and clinical pharmacology (the use of medications to treat behavioral, psychological, and psychiatric conditions such as eating disorders, hyperactivity, depressive disorders, anxiety disorders, schizophrenia, and Alzheimer's disease). Attention will be paid to the community counselor's role in the effective multicultural-competent and ethical use of psycho-active medications (e.g., referral, consultation, monitoring) when psychopharmacological interventions are part of treatment as well as to the historical and sociopolitical contextual issues surrounding the use of psychiatric medication.

**COUN 582B COUNSELING STRATEGIES AND CHEMICAL DEPENDENCY (1)**

This course provides an overview of chemical dependency that includes evaluation, medical aspects, etiology, treatment approaches, legal aspects, risk factors, community resources, referral, and education/prevention of substance abuse. Emphasis will be on culturally competent approaches to chemical dependency intervention and prevention. Students may take 582B in lieu of COUN 581 (Introduction to Chemical Dependency), which is only offered through Extended Education and is also open to the community at large.

**COUN 595 SPECIAL STUDIES (1-4)****COUN 596 SUPERVISED FIELD EXPERIENCE (1-4)**

Counseling experience supervised by Counseling Department faculty. Experience can be gained both at on-campus counseling facility or in outreach programs in the community. Cr/NC Only. Prerequisite: consent of instructor; for School Counseling students: permission of School Counseling faculty.

## **Criminology and Criminal Justice Studies (CCJS)**

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### **CCJS 201 CRIMINAL JUSTICE AND PUBLIC POLICY (4)**

A systematic analysis of the effectiveness and influence of criminal justice policy and practice throughout the criminal justice system. The focus is on the development and implementation of crime control policy. Satisfies GE, category D1 (Individual and Society).

### **CCJS 330 GOVERNMENT AND THE RULE OF LAW (4)**

Nature and development of law and legal institutions from philosophical, historical, comparative, and contemporary perspectives; interrelationships of law, morality, and custom; social control, legal change and social change; and the legal profession.

### **CCJS 340 LAW ENFORCEMENT AND DRUG LEGISLATION (4)**

An examination of issues and problems posed by the licit and illicit use of drugs for the administration of justice and corrections. It critically examines social theories and social policies in relation to drugs. Topics to be covered include: the origins of the contemporary drug crisis in the United States; the development of criminal justice policies regarding drug use; the varieties of drugs and the destructive problem created by each for law enforcement, adjudication, and corrections. Some emphasis will be placed on economics, politics, and international relations as a factor in enforcement policies.

### **CCJS 365 MANAGEMENT IN PUBLIC AGENCIES (4)**

Central concerns are the formation and administration of the managerial policies of public agencies. Focus on such vital issues as the allocation of public resources, public accountability, and the description, analysis, solutions, and synthesis of contemporary managerial problems in criminal justice agencies. Crosslisted as POLS 430.

### **CCJS 370 SEMINAR: RESEARCH METHODS (4)**

A consideration of the methods used by criminal justice researchers in a variety of basic and applied settings. Topics include the choice of a problem, ethical issues, the logic of science, measurement, sampling procedures, surveys, coding, experimentation, observation, and summarizing findings.

### **CCJS 375 CURRENT ISSUES IN CRIMINAL JUSTICE (4)**

An in-depth examination of selected topics and issues in criminal justice. Specific course topic varies by semester.

### **CCJS 399 LECTURE SERIES (1-3)**

A weekly meeting or meetings offering presentations and discussions by guest lecturers on issues of current interest and importance. May be repeated for a total of 4 units.

### **CCJS 404 INTRODUCTION TO CONSTITUTIONAL LAW (4)**

A survey of selected areas of constitutional law and Supreme Court decisionmaking, considering the political and social influences as well as doctrinal forces which have produced various policies and interpretations. Crosslisted as POLS 423.

### **CCJS 405 RIGHTS OF THE ACCUSED (4)**

Leading constitutional cases in criminal justice, including: search and seizure, death penalty, electronic surveillance, privilege against self-incrimination, jury trial, right to counsel, and double jeopardy, will be studied in detail. California Supreme Court decisions will be introduced where appropriate.

### **CCJS 407 POLICE, COURTS AND COMMUNITY RELATIONS (4)**

Examines the history and role of the police in democratic society, including police discretion, police-community relations, police misconduct, and the impact of police strategies such as community-oriented and problem-oriented policing.

### **CCJS 420 SEMINAR IN CRIMINOLOGY (4)**

An in-depth analysis of contemporary theories of criminal behavior; psychological, sociological, biological factors; professional criminals, white collar crimes, and other selected examples of deviant behavior and their relationship to agencies of social control.

### **CCJS 430 WOMEN AND CRIME (4)**

An in-depth analysis of women/girls and crime in the field of criminology and criminal justice. The class examines the significance of gender in pathways to crime as well as the nature and extent of female offending, victimization, and incarceration. The course focuses on feminist theory and methodology.

### **CCJS 441 DEVIANT BEHAVIOR (4)**

A consideration of the problems created by pressures to punish and control criminals, the politics of control strategies, the use and misuse of probation and parole, the concept of correction, and alternatives to incarceration. Crosslisted as SOCI 314.

### **CCJS 450 PUNISHMENTS AND CORRECTIONS (4)**

A consideration of the problems created by pressures to punish and control criminals, the politics of control strategies, the use and misuse of probation and parole, the concept of correction, and alternatives to incarceration. Crosslisted as SOCI 450.

### **CCJS 470 MEDIA, CRIME AND CRIMINAL JUSTICE (4)**

Examines the role and significance of mass media in the field of criminology and criminal justice, including lawmaking, law breaking and the responses to rule violations. The course covers the historical and contemporary media coverage of crime and criminal justice; the structure and content of media coverage of crime and related information; as well as the role and importance of media in the formation of citizen attitudes and behavior, decision-making and public policy.

### **CCJS 480 WHITE COLLAR CRIME (4)**

Examines the various forms, causes and consequences of white collar crime compared to other crime; reviews relevant theory and research; considers the reason for the difficulties in detection and prosecution and issues surrounding punishment; and examines the efficacy of prevention strategies.

### **CCJS 489 CIVIL LIBERTIES AND THE CONSTITUTION (4)**

An examination of fundamental principles of constitutional law that govern and constrain the powers and operations of criminal justice agencies and their personnel. The rights and immunities guaranteed by the Constitution in general, and the civil liberties, rights, and freedoms protected by the Bill of Rights will be covered. Rights of the accused will also be considered. Crosslisted as POLS 424.

### **CCJS 490 SENIOR SEMINAR: CRIMINOLOGY AND CRIMINAL JUSTICE STUDIES (4)**

A comprehensive synthesis and examination of the theoretical concepts and empirical findings of other courses in the major curriculum. Areas of special interest to the instructor and the students will be closely studied. Prerequisites: senior standing and/or consent of instructor. Graduation Application submitted to Admissions and Records.

**CCJS 494 INTERDISCIPLINARY SEMINAR (1-4)**

An exploration of selected criminal justice topics from an interdisciplinary perspective. Themes and topics may vary. May be repeated for credit.

**CCJS 495 SPECIAL STUDIES (1-4)**

The supervised study of a particular problem or area of interest selected by the student in consultation with a sponsoring faculty member. Regular meetings will be arranged for discussions and progress evaluations, and a term paper is required. May be repeated for credit.

**CCJS 497 JUVENILE JUSTICE (4)**

An exploration of the nature and extent of juvenile delinquency, including serious or violent crime. The major theories of delinquency causation are reviewed. The course will be devoted to the juvenile justice system and how it processes youths accused of crime. The nature and function of all major segments of the juvenile justice system will be discussed, including law enforcement, juvenile court, and corrections. The legal rights of juveniles will also be reviewed. Finally, the current policy issues in juvenile justice will be explored. Crosslisted as SOCI 366.

**CCJS 499 INTERNSHIP (2-4)**

In consultation with the major advisor, the student selects a public, private, or community agency, gains field experience under the supervision of agency heads, and meets with the faculty advisor to discuss progress. Cr/NC only. May be repeated for a total of 8 units.

**Economics (ECON)**

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**ECON 204 INTRODUCTION TO MACROECONOMICS (4)**

An examination of the basic characteristics of the American economy and the principles that determine its performance. Emphasis is given to those factors that determine the levels of production, employment, prices, interest rates, and inflation. Satisfies GE, category D5 (Contemporary International Perspectives).

**ECON 205 INTRODUCTION TO MICROECONOMICS (4)**

An examination of the basic principles that determine the behavior of individual consumers and firms in the United States economy as they respond to changing economic conditions. Topics include demand, supply, pricing, production, cost, competition and industrial structure. This course may be taken before ECON 204.

**ECON 295 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

A community service course allowing students the opportunity to earn credit for volunteer activities pertaining to their academic program. Requires 30 hours of service per unit and approval by an Economics Department advisor. Cr/NC only.

**ECON 303 INTERNATIONAL ECONOMICS (4)**

A study of issues, theories and policies regarding international trade and finances, international movements of capital and labor, economic development, external debt and foreign aid. Prerequisite: ECON 204 and 205 or consent of instructor.

**ECON 304 INTERMEDIATE MACROECONOMIC THEORY (4)**

A study of economic theories that explain the levels and fluctuations in production, employment, income, money, and prices in an economic system, with an emphasis on the macroeconomic framework of the U.S. economy. Topics include national income accounting, models of short-run equilibrium and long-run growth, macroeconomic aspects of international economics, labor markets, monetary policy, and fiscal policy. Prerequisites: ECON 204, and ECON 205 and MATH 165 or equivalent.

**ECON 305 INTERMEDIATE MICROECONOMIC THEORY (4)**

A study of theories that explain consumer behavior and managerial decision making in organizations and firms in the economy. Deals with theories of demand, pricing, production, cost analysis, and competition. Prerequisites: ECON 204 and ECON 205 and MATH 165 or equivalent.

**ECON 311 PUBLIC ECONOMY (4)**

A basic introduction to the economics of the public sector designed to give the student a broad overview of the economic roles of government in our society. Emphasis will be on understanding current public policy issues and the effects of government policies on resource allocation (efficiency) and income distribution (equity). Prerequisites: ECON 205 and ECON 317 or consent of instructor.

**ECON 317 INTRODUCTION TO ECONOMETRICS (4)**

Statistical techniques, based on linear regression, most frequently employed in economics. Topics include multiple regression, Gauss-Markov Theorem and its violations, cross-sectional techniques, time series analysis, simultaneous equation modeling, and forecasting. Applying widely-used computer programs to economic phenomena is emphasized. Prerequisites: ECON 204, 205, and MATH 165 or equivalent or consent of instructor.

**ECON 318 INDUSTRIAL ORGANIZATION (4)**

Economists understand firm behavior by applying a simple rule for profit maximization: Marginal Revenue equals Marginal Cost. Models of perfect competition and monopoly are the simplest applications of this rule, but fail to explain many of the things firms do in real markets. Industrial Organization (IO) is motivated by observed deviations from the classical models of perfect competition and monopoly. Topics include models of price discrimination, product differentiation, oligopoly, entry deterrence, collusion, etc. in order to understand how different market institutions lead to different restatements of the profit maximization rule. Prerequisites: ECON 205, MATH 107; ECON 305 recommended.

**ECON 321 LABOR ECONOMICS (4)**

A study of economic and social issues in U.S. labor markets. Topics will include U.S. labor history, market structure, labor laws, gender and race, education and training, and collective bargaining. Prerequisite: ECON 205.

**ECON 322 URBAN ECONOMICS (4)**

An exploration of issues facing communities and regions in their attempts to manage growth and enhance the quality of life. Microeconomic tools are applied in a spatial context to solve problems associated with land use, firm location, transportation, housing, congestion, open space and environmental protection. Prerequisite: ECON 204 or 205.

**ECON 375 MONEY AND BANKING (4)**

An examination of financial institutions, monetary theory, and the rapidly changing domestic and international banking system. Topics will include alternative theories of monetary policy, the determination of interest rates and price levels, and the influence of financial institutions on inflation, recession and growth. Prerequisite: ECON 204 and ECON 205, or consent of instructor.

**ECON 381 NATURAL RESOURCE AND ENVIRONMENTAL ECONOMICS (4)**

A study of public and private sector strategies for achieving the optimal use of natural resources and the control of pollution. Topics include: energy, water, minerals, forests, air pollution, climate change and the valuation of environmental benefit and costs. Prerequisites: ECON 204 and 205, or consent of instructor.

**ECON 388 ECONOMICS AND LAW OF BUSINESS REGULATION (4)**

An analysis of the regulatory environment of American business. Studies the way the legal system resolves economic conflicts among business, consumers, labor and government. Topics include: constitutional law, administrative law, regulation of monopoly and competition, labor law and international law. Prerequisite: ECON 205; and ECON 305 preferred.

**ECON 403A SEMINAR IN INTERNATIONAL ECON DEVELOPMENT (4)**

Review of current issues and study of conceptual frameworks for thinking about economic development with a global perspective. Focuses on sources of economic growth, poverty alleviation, resource sustainability and reform of economic institutions in Latin America, Africa, Asia and ex-socialist economies. Prerequisite: ECON 303 or 304 or consent of instructor.

**ECON 403A SEMINAR IN INTERNATIONAL ECON DEVELOPMENT (4)**

Review of current issues and study of conceptual frameworks for thinking about economic development with a global perspective. Focuses on sources of economic growth, poverty alleviation, resource sustainability and reform of economic institutions in Latin America, Africa, Asia and ex-socialist economies. Prerequisite: ECON 303 or 304 or consent of instructor.

**ECON 403B SEMINAR IN INTERNATIONAL TRADE (4)**

This class will cover three main topics of international economics: international trade, foreign direct investment, and immigration. To provide an understanding of the principles driving international trade, and Stolper-Samuelson theorem. In addition, this class will deeply focus on international trade theories under imperfect competition. Theories and policies that nations adopt to regulate international trade will be presented, too. The second section of this class begins with the question why firms choose a multinational structure over other potential methods of operation. Two fundamental theories, horizontal and vertical model, of foreign direct investment will be discussed in class. After this, the last section of this class will look at the relationship among foreign direct investment, immigration, and international trade. Prerequisites: ECON 303 and ECON 305.

**ECON 403C SEMINAR IN INTERNATIONAL FINANCE (4)**

The goal of this course is to explain movements in the trade balance, exchange rates, national output, and inflation. The first portion of the course develops building blocks regarding these movements. The second part of the course develops a theoretical framework which we will use to analyze policy issues such as the sustainability of the U.S. trade deficit, the Asian currency crisis, the Argentine crisis, the European Monetary Union and the Euro, the debt crisis, the international monetary system, and capital market integration. Prerequisites: ECON 304, 317, 303 or equivalents with consent of instructor. Do not take this class without these prerequisites.

**ECON 404 SEMINAR IN MACROECONOMIC THEORY (4)**

A study of theories dealing with inflation, unemployment, macro-economic policies, equilibrium and disequilibrium. Topics may include: investment, growth theory, monetary theory, international trade, aggregate demand and supply, comparative statics, post-Keynesian economics, and recent theoretical developments and policy issues. Prerequisites: ECON 304 and MATH 165 or equivalent.

**ECON 405 SEMINAR IN MICROECONOMIC THEORY (4)**

This course is devoted to explorations of economic theory and policy issues and is designed to deepen student understanding of economic theory learned in ECON 305. Prerequisites: ECON 305 and MATH 165 or equivalent or consent of instructor.

**ECON 408 SEMINAR IN MATH APPLICATIONS IN ECON (4)**

Applications of mathematical techniques in economics. Construction of micro and macroeconomic models using calculus and linear algebra. Topics include: optimization, competition, supply and demand, national income, growth theory, general equilibrium, disequilibrium and dynamics. Recommended for students considering graduate study in economics or business. Prerequisites: ECON 304 and 305, and MATH 161 or equivalent or consent of instructor.

**ECON 411 SEMINAR IN PUBLIC ECONOMICS (4)**

Applications of economic theory to public project analysis for students seeking careers in the public sector. Topics include: resource allocation, modeling and simulation, decision theory, fiscal impact analysis, benefit-cost analysis, government investment criteria and project evaluation. Prerequisite: ECON 304 and 305 or consent of instructor.

**ECON 417 SEMINAR IN ECONOMETRICS AND FORECASTING (4)**

This course is devoted to explorations of statistical applications and theory used to analyze economic phenomena and is designed to deepen the student's understanding of econometric and forecasting techniques learned at a basic level in ECON 317. Prerequisites: ECON 317, 304 or 305, or consent of instructor.

**ECON 418 SEMINAR IN GAME THEORY (4)**

Analytical approach to studying rational behavior in interactive situations. This course develops basic theory, including Nash equilibrium, mixed strategies, credibility, coalitional games, and the core. Applications may include public goods, voting, auction design, bargaining, and the competitive market mechanism. Prerequisites: ECON 305, MATH 165; MATH 161 recommended.

**ECON 421 SEMINAR IN LABOR ECONOMICS (4)**

An analysis of the theory of labor supply and demand. Topics include: wage determination and the theory of human capital, labor force participation, antipoverty programs, the causes and consequences of wage inequality, theories of race and gender discrimination, the role and effects of labor unions, and the effects of the minimum wage on employment and income. Prerequisites: Econ 305 and 317, or consent of instructor.

**ECON 426 SEMINAR IN HIST OF ECONOMIC THOUGHT (4)**

The interaction of economic thought, economic policy and political ideology from mercantilism to the present day. The works of Smith, Malthus, Ricardo, Marx, Marshall, Keynes and the post-Keynesians are discussed in the context of the economic problems of their times. Satisfies GE, category D5 (Contemporary International Perspectives). Prerequisite: ECON 204 and 205 or consent of instructor.

**ECON 432 SEMINAR IN U.S. ECONOMIC HISTORY (4)**

Economic development of the United States since the American Revolution. Topics to be covered include: capital formation and the growth of business concentration; the distribution of national income; problems of agriculture; growth of the labor movement; patterns of inflation and depression; impact of international relationships on U.S. economic development. Prerequisite: ECON 204 or 205 or consent of instructor.

**ECON 447 SEMINAR IN GENDER AND ECONOMICS (4)**

The course explores feminist and neoclassical economic contributions to gender analysis. The main focus will be on work, development, and globalization. Topics explored in depth will include the environment, the family, and methodological issues. The diversity of women's experience, due to their differing racial, class, geographical, and cultural positions will also be emphasized. Prerequisite: ECON 204 and 205, or consent of instructor.

**ECON 481 SEMINAR IN ECOLOGICAL ECONOMICS (4)**

An exploration of the sustainable use of three types of capital: natural, human and financial. Public and private sector solutions are developed to promote the long-term viability of market-based economies. Topics include pollution control, fishery management welfare measurement, performance metrics and product design. Prerequisites: ECON 204 and 205, or consent of instructor.

**ECON 488 SEMINAR IN ECONOMICS AND LAW OF BUSINESS REGULATION (4)**

Advanced topics in economic and legal aspects of business regulation. Prerequisites: ECON 204 and 205.

**ECON 494 SPECIAL TOPICS IN ECONOMICS (1-4)**

Course of lectures on a single topic or set of related topics not ordinarily covered in the economics curriculum. May be repeated for credit with a different topic. Prerequisite: consent of the instructor.

**ECON 495 SPECIAL STUDIES (1-4)**

Open to economics majors only. Prerequisite: consent of the instructor.

**ECON 496 TUTORING ECONOMICS (2)**

Intended for advanced students working as tutors in economics courses. Cr/NC only. Prerequisite for first semester of tutorial work: concurrent enrollment in ECON 497.

**ECON 497 SEMINAR IN TEACHING ECONOMICS (2)**

A faculty-directed seminar in teaching methods and concepts for students tutoring in economics. Cr/NC only.

**ECON 499 INTERNSHIP (1-4)****ECON 501 ECONOMICS OF MARKETS AND INDUSTRIES (3)**

Price theory and resource allocation as applied to the analysis of market demand behavior and firm/industry production decisions. For the purpose of market demand estimations and forecasts the course covers basic macroeconomic concepts (GDP and Price indexes, etc.). For the purpose of understanding industry performance the course covers the basics of regulations. Prerequisite: a B.A. or B.S. degree.

**ECON 595 SPECIAL STUDIES (1-4)**

Independent study designed in consultation with instructor. Subject matter variable. Students must complete the standard SSU form. Prerequisite: consent of instructor.

## Education (EDUC)

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### EDUC 150 PROSPECTIVE TEACHERS (3)

Focuses on realities of the classroom from the teacher's point of view. Includes child development, teachers' roles and responsibilities, and the culture of schools in a changing society. Includes an apprenticeship with a teacher. Grade only. Prerequisite: consent of instructor.

### EDUC 250 TEACHING IN A CHANGING WORLD (3)

This course is designed to provide an introduction to the classroom from teachers' points of view. Areas of content include child and adolescent development, teachers' roles and responsibilities, the culture of schools in a changing society, as well as an apprenticeship with a practicing teacher. Particular emphasis will be on teacher decision making. Institutional changes that could improve teacher and student performance will also be explored. Each student will spend 30 hours observing and participating in an assigned public school classroom. Grade only.

### EDUC 291 MENTORING IN SCHOOL BASED PROGRAMS (4)

Open to students who are tutoring in the community. Focus is on the profiles of mentors and mentees and how their individual and mutual relationships are affected: learning styles and strategies, self-esteem, perceived locus of control, communication, stress/anxiety, use/misuse of tutoring strategies, diversity, social/family and educational systems. A wide variety of techniques and skills are used and developed by class participants to empower their tutees and to enhance their own effectiveness as a tutor/human being. Cr/NC only. Certificate received upon successful completion of training. Instructor permission required to enroll in the course.

### EDUC 295 COMMUNITY INVOLVEMENT PROGRAM (1-4)

CIP involves students in the community, performing such tasks as tutoring. Students receive 1 to 4 units, depending on the specific tasks performed. A total of 6 units of CIP credit may be applied toward a degree. Cr/NC only. Recommend to have EDUC 250 as prerequisite, but not required. 30 hours of fieldwork is mandatory.

### EDUC 329 THE MIGRANT EXPERIENCE (2)

An examination of the migrant plight in our society and educational system through study of the literature and by a direct, active contact with the migrant community. Grade only. Prerequisites: functional Spanish language skills and participation in the mini-corps program, or consent of instructor.

### EDUC 390 SELECTED TOPICS IN EDUCATION (1-4)

### EDUC 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)

CIP involves students in the community, performing such tasks as tutoring, coaching and reading for the blind. Students receive 1 to 4 units, depending on the specific tasks performed. A total of 6 units of CIP credit may be applied toward a degree. Cr/NC only.

### EDUC 417 SCHOOL AND SOCIETY (3)

A critical examination of current issues in today's schools and future directions in education through the perspectives of history, philosophy, sociology, anthropology, and the politics of education. Content includes: trends, movements and issues of the development of our present-day school systems and current educational practice; development of an individual philosophy of education through examination and evaluation of educational philosophies from early Greek through modern/post-modern thought; analysis of American society and its effect on the functioning of schools; the role of explicit and implicit cultural assumptions in educational contexts; and the influence of federal, state and local governing agencies, the knowledge industry and special-interest groups on education. Grade only. Satisfies GE, category D1 (Individual and Society).

### EDUC 443A OBSERVATION/PARTICIPATION IN MULTICULTURAL SETTINGS (2)

### EDUC 481 DEVEL GREAT CLSRM (3)

### EDUC 484 INTRODUCTION TO MULTIMEDIA AND WEB AUTHORING (3)

Students learn to use technology to improve teaching and learning in any setting or organization where education and communication are critical. Multimedia authoring and web design using graphics, text and sound to convey information and ideas is an integral part of the class. These technology tools include HyperStudio, PhotoShop, Netscape, Claris Home Page, HTML, Macintosh computers and scanners. Teaching and learning projects that are innovative and consistent with exemplary instruction practices form the core activities of the class. These projects focus on the development of learning and information modules created with HyperStudio and the design of educational websites. Grade only. Prerequisite: permission of the instructor.

### EDUC 490 SELECTED TOPICS IN EDUCATION (1-4)

A course designed according to the interest of a particular faculty member, providing opportunities for diversification in content and reading. Grade only.

### EDUC 495 SPECIAL STUDIES (1-4)

### EDUC 509 ORGANIZATION, ADMINISTRATION & SUPERVISION OF READING (3)

### EDUC 510 SDAIE IN CONTENT-AREA CLASSES (3)

### EDUC 511 PROFESSIONAL INDUCTION PLAN: SUP DEV (1)

### EDUC 538 DEVELOPMENT OF LANGUAGE & THINKING: INFANCY-MID CHILD (3)

### EDUC 568 EVALUATION IN EDUCATION (3)

### EDUC 570 THE REFLECTIVE EDUCATOR (3)

This is the first in a series of three graduate core courses in the School of Education. Students will take this course at the beginning of the M.A. program. The focus of this course is on philosophical, historical, social, and psychological perspectives in education. Students will examine these perspectives while being encouraged to examine and reflect upon their own professional practices in education. In this course, students will begin to construct a reflective program portfolio that they will continue to modify throughout their M.A. program. The portfolio is intended to be cumulative throughout the graduate core courses. Grade only. Prerequisite: admission to M.A. in education program.

**EDUC 571 RESEARCH PARADIGMS IN EDUCATION (3)**

This is the second in the series of three graduate core courses, and is designed to be taken midway in the master of arts degree program. This course focuses on students as critical consumers of research and includes among its goals the development of skills in the analysis and critique of educational research. The course addresses research and field needs of practicing educators as opposed to the needs of professional researchers and serves to acquaint students with basic principles and techniques of educational research. It also provides students with an opportunity to integrate knowledge of these principles through analyses of action research projects that may serve as the foundation for the culminating master of arts degree project. Grade only. Prerequisite: EDUC 570.

**EDUC 572 SUPERVISED STUDY FOR COGNATE PROJECT (3)****EDUC 573 SUPERVISED STUDY: INDIVIDUAL EXAM (3)****EDUC 574 INTRODUCTION TO CLASSROOM RESEARCH AND NATIONAL BOARD CERTIFICATION (1-3)**

This is an introductory course that supports teachers preparing for the National Board for Professional Teaching Standards certification. National Board (NB) certification is available for general and special education teachers and counselors of students from preschool through grade 12 in a variety of areas. The purpose of this course is to provide an overview of the NB certification process. Specifically, students become familiar with the National Board's five core propositions, certificate area standards, and assessment measures and procedures required for certification. In addition, students will learn about the application process and potential sources of funding. The units from this course can be applied to an M.A. degree in Education at Sonoma State University.

**EDUC 575A CONDUCTING RESEARCH ON TEACHING (3)**

This is a second of three courses that support teachers working toward National Board certification. It is also intended for any student interested in conducting action research in schools and classrooms. Students examine exemplary teaching practices and learn about strategies for action research, self-assessment, and reflection on teaching practice. Using their own classrooms as sites for ongoing action research, students apply various research methodologies and engage in data collection through observation, videotaping, and examination of artifacts. In addition, students analyze data and share findings through descriptive, analytical, and reflective writing. Those pursuing National Board certification will also focus on analysis and assessment of National board portfolio entries, and develop action plans for their National Board portfolios. The units from this course can be applied to an M.A. degree in Education at Sonoma State University.

**EDUC 575B CONDUCTING RESEARCH ON TEACHING (4)**

This is a second of three courses that support teachers working toward National Board certification. It is also intended for any student interested in conducting action research in schools and classrooms. Students examine exemplary teaching practices and learn about strategies for action research, self-assessment, and reflection on teaching practice. Using their own classrooms as sites for ongoing action research, students apply various research methodologies and engage in data collection through observation, videotaping, and examination of artifacts. In addition, students analyze data and share findings through descriptive, analytical, and reflective writing. Those pursuing National Board certification will also focus on analysis and assessment of National board portfolio entries, and develop action plans for their National Board portfolios. The units from this course can be applied to an M.A. degree in Education at Sonoma State University.

**EDUC 576 RESEARCH, REFLECTION AND PROFESSIONAL PRACTICE (4)**

This course is designed for teachers to enhance their professional practice through research and reflection. Working collaboratively, teachers complete their portfolios required for National Board certification. In preparation for Assessment Center exercises, teachers engage in extensive review of current and historical perspectives on teaching and learning in their certificate areas. The units from this course can be applied to an M.A. degree in Education at Sonoma State University.

**EDUC 578 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. Cr/NC only.

**EDUC 588 EDUCATIONAL CURRICULUM (3)****EDUC 595 SPECIAL STUDIES (1-4)**

Independent study designed in consultation with an instructor. Grade only. Prerequisite: Students must complete the standard SSU form and secure the required approvals during the first week of classes.

**EDUC 598 DEVELOPING A THESIS/PROJECT (3)**

This is the final course in the graduate core courses in education. This course develops students' abilities to carry out a thesis or project and provides basic information for planning and implementing the master of arts degree proposal. The main goal is to provide students with knowledge to begin their thesis or project. Time is provided students to assess progress in the program and to complete portfolio development. Grade only. Prerequisite: completion of all M.A. coursework or taken in final semester of M.A. coursework.

**EDUC 599 SUPERVISED RESEARCH FOR THESIS/PROJECT (3)**

Supervised Research provides students with guidance in the completion of their research project. Under the direction of the committee chair, and in consultation with all committee members, students will complete the thesis or project that was developed in EDUC 598 Developing a Thesis/Project. Following completion of the research project, students will participate in a formal presentation of their work to faculty and colleagues. Cr/NC. Prerequisite: completion of EDUC 598. Advancement to candidacy approved.

## **Education: Curriculum and Teaching (EDCT)**

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### **EDCT 544 CURRICULUM, TEACHING, AND LEARNING IN THE CONTENT AREAS (3)**

Examination of curriculum, teaching, and learning in the context of a particular content area as taught in K-12 schools. This course extends and applies the more general theories, practices, and research in curriculum, teaching, and learning established in EDCT 585 and 586. Intended for students in the appropriate Subject Area Cohort Track in the Curriculum, Teaching, and Learning M.A. program. Prerequisites: EDCT 585 and 586.

### **EDCT 552 EDUCATIONAL TECHNOLOGY PRAXIS (3)**

Educational Technology Praxis requires students to take a reflexive stance towards the initiation and integration of technological skills and knowledge in authentic instructional contexts and settings. The practical application of technology will be grounded within current perspectives and trends of new media technologies and take into account educational frameworks of learning, design, and pedagogical practice.

### **EDCT 556 TECHNOLOGY, PEDAGOGY AND SOCIETY (3)**

This course relates pedagogical theories to technology integration strategies at various levels of education. The content is focused on how technology and learning are situated -- how socio-cultural issues relate to and influence technological access and use, and power and privilege. Age, gender, race/ethnicity, social class, sexual orientation, language, and social capital and its intersections will also be analyzed.

### **EDCT 557 PROJECT MANAGEMENT FOR EDUCATIONAL TECHNOLOGY (3)**

This course considers how a small-scale Educational Technology research project can be conducted in an education environment. Case studies will be reviewed to offer practical tools and applied research strategies to students prior to conducting their own Educational Technology thesis or cognate project.

### **EDCT 559 EDUCATION MEDIA AND INTERNET RESOURCE DEVELOPMENT (3)**

This course focuses on critical media literacy and issues related to researching, evaluating, and publishing online. Prerequisite: EDCT 551 or instructor approval.

### **EDCT 585 CURRICULUM DEVELOPMENT: THEORY, PRACTICE AND EVALUATION (3)**

Analyses of sociopolitical, economic and cultural influences on curriculum development, instructional processes and learner achievement in a variety of instructional settings. Study of the structures of various disciplines, the roles of participants, and other variables in staff and curriculum development. Evaluation of alternative theoretical models for constructing and changing curricula. Grade only. This course is required in the Curriculum, Teaching and Learning and the Preliminary Administrative Services Credential programs. Prerequisites: consent of instructor and approval of the School of Education.

### **EDCT 586 TEACHING AND LEARNING: RESEARCH AND APPLICATION-CLASSROOM (3)**

An analysis of teaching and learning strategies and instructional variables as they relate to diverse groups of learners. Research will be analyzed in terms of the major paradigms of the field of education. Also included is a review of recent developments in the evaluation of classroom performance and achievement. Grade only. This course is required for the Curriculum, Teaching and Learning program. Prerequisite: consent of instructor and approval of the School of Education.

### **EDCT 595 SPECIAL STUDIES (1-4)**

## **Education: Early Childhood Education (EDEC)**

### **EDEC 239 INTRODUCTION TO EARLY CHILDHOOD EDUCATION (3)**

Introduction to the theory and practice of early childhood education (from birth to age eight). Topics include: an overview of historical and contemporary models of early childhood education, principles of developmentally and culturally appropriate practices design of appropriate learning environments, collaboration with diverse families and communities, and professional ethics and development. Course requires 15 hours of participant observation in the field. Grade only.

### **EDEC 331 PRACTICUM IN CHILD STUDY (4)**

This course is for students who have an interest in understanding the development and learning of young children within early childhood settings. During the first part of the course, students explore the field of child development by learning observational techniques, observing individual children, and participating in their classrooms. During the second part of the course, students use the information gained from observational studies to focus on the educational opportunities for social and emotional development within an early childhood classroom. This course can be used in partial fulfillment of requirements for the California Child Development Permit, and it satisfies the requirement for prerequisite fieldwork for admission to the SSU credential programs. Each student will spend at least 45 hours (approximately 3 hours per week) observing and participating in a preschool, kindergarten, or primary classroom that has been approved by the instructor. Grade only.

### **EDEC 420 CHILD DEVELOPMENT IN FAMILY, SCHOOL AND COMMUNITY (3)**

Students will explore the physical, cognitive, social, emotional, moral, and language development of children from birth through adolescence. The course covers major theories of child development, including critiques and application of the theories as they relate to children from a variety of cultural and family backgrounds. The impact of child-rearing beliefs, poverty, gender issues, and language development are studied as they relate to developmentally-based practices in educational settings. Students will learn effective school-family communication practices for a diverse society, individualized curriculum to meet the needs of diverse learners, and community resources available to support families. This course is a pre-requisite to the Multiple Subjects credential program, can be applied to the Child Development Permit, and satisfies GE category E (the Integrated Person). Grade only.

### **EDEC 431 CHILD STUDY AND CURRICULUM PRACTICE: PRESCHOOL AND KINDERGARTEN (3)**

Classroom observation and participation in preschool and kindergarten settings. Twelve hours per week for seven weeks in each setting. Topics include classroom environment, lesson planning, teaching strategies, discipline, and child study and observation. Grade only. Prerequisite: admission to Multiple Subject CLAD Early Childhood Emphasis Credential program or consent of instructor. Must be taken concurrently with EDUC 476 for Multiple Subject CLAD ECE Emphasis students.

### **EDEC 437 INTEGRATED MULTICULTURAL CURRICULUM IN PRESCHOOL THROUGH ELEMENTARY (4)**

Students will learn to plan and implement developmentally and culturally appropriate curriculum for children in preschool and the early primary grades. The focus is on helping children construct knowledge through an integrated approach that includes all curriculum areas, with emphasis on the development of literacy and mathematics skills and concepts. Students learn to use play-based and teacher-initiated activities to create well-balanced curriculum that aligns with the California Preschool Learning Foundations and the California Curriculum Frameworks for grades K-2. Students will learn to use assessment to evaluate curriculum effectiveness and to inform future curriculum decisions. This course can be used in partial fulfillment of requirements for the California Child Development Permit, and it satisfies the requirement for prerequisite fieldwork for admission to the SSU credential programs. Each student will spend at least 45 hours (approximately 3 hours per week) observing and participating in a preschool, kindergarten, or primary classroom that has been approved by the instructor. Grade only.

### **EDEC 505 ACTION RESEARCH IN PRESCHOOL AND ELEMENTARY CLASSROOMS (3)**

Techniques for conducting ethnographic action research in preschool and elementary settings. Theory and research relating to children's construction of friendships and peer group processes are discussed. Special emphasis is placed on inclusion and exclusion in classroom peer cultures. Grade only.

### **EDEC 530 TEACHING TO DIVERSITY (3)**

Since most aspects of education are influenced by culture, this course is designed to analyze education as a cultural process. The multicultural nature of today's society in California and the United States makes it imperative for educators to include multiple approaches to teaching and learning. This course reviews theoretical and practical perspectives of cultural diversity, crosscultural contact and culturally sensitive pedagogy, particularly for limited English proficient students. Grade only. Prerequisite: permission of instructor.

### **EDEC 531 THE ROLE OF PLAY IN DEVELOPMENT AND LEARNING (3)**

Students will examine theories from developmental psychology, education, and anthropology to look at the role of play in human experience, from infancy to adulthood. The history of play in educational practice and its relationship to concepts such as ritual, work, and friendship are traced through the study of games, traditional rhymes, fairy tales, and humor, from a variety of cultural perspectives. Topics include play's relationship to learning in all areas of development and academic disciplines, effects of technology and culture on children's play, gender development and play, play environments, play therapy, and play as a tool for developmentally and culturally sensitive curriculum and assessment. Grade only. Prerequisite: graduate student in Education or permission of instructor. Taught fall semester of odd years.

### **EDEC 532 SOCIAL-MORAL DEVELOPMENT IN EARLY CHILDHOOD EDUCATION (3)**

Students will explore theories and research addressing social and moral development from infancy through middle childhood. Topics include: attachment and its role in social and moral development, research on the development of prosocial behavior and the ability to take the perspective of others, cultural value differences, gender identity and gender role socialization, development of friendships, resiliency and at-risk children, curriculum that promotes children's social and emotional development, and working with parents to promote children's social and emotional development. Students will plan, implement, and report on action research projects that answer specific questions dealing with social, moral, and emotional development in early childhood education. Grade only. Prerequisite: graduate student in Education or permission of instructor. Taught fall semester of even years.

**EDEC 534 FIRST AND SECOND LANGUAGE CURRICULUM IN PRESCHOOL AND PRIMARY (3)**

Students explore the nature and development of developmentally and culturally appropriate practice in schools with diverse populations, including the development of listening, speaking, reading and writing in first and second languages. From observations of children's language, play and projects in a variety of settings, students will explore the socio- and psycholinguistic underpinnings of communicative competence, emerging literacy and conceptual development in both home and second languages. Strategies for linking children's home and school experiences with holistic, interactive and integrated curriculum will be emphasized as well as a variety of strategies for specially designed academic instruction in English (SDAIE). Grade only.

**EDEC 535 LEAD ADVOCACY FOR CHILDREN AND FAMILIES (3)**

A critical examination of current policy issues related to the inclusion of families in schools, including bilingual education, family literacy programs, Head Start and Even Start, and coordinated services for families and children from diverse cultural, linguistic and socioeconomic background within school settings. Each student will propose and complete a field-based project touching upon one or more of these areas of professional expertise as part of the development of a leadership and advocacy portfolio for the course. Applicable to the Child Development Permit.

**EDEC 537 AUTHENTIC ASSESSMENT IN PRESCHOOL AND PRIMARY PROGRAMS (3)**

This course examines how and what we can learn about children from birth through the primary grades in terms of their cultural backgrounds; physical, cognitive, social, and emotional development; language and literacy development; and academic performance. Different methods of studying and assessing children in both their first and second languages are explored, including observational techniques, clinical interviews, ethnographic methods, and portfolio development. The integration of curriculum and assessment to meet the needs of children and families from diverse cultural, linguistic, and economic backgrounds is stressed. Grade only. Prerequisite: graduate student in Education or permission of instructor. Taught spring semester of odd years.

**EDEC 538 THE DEVELOPMENT OF LANGUAGE AND THINKING: INFANCY THROUGH MIDDLE CHILDHOOD (3)**

This course addresses the development of children from birth through middle childhood with emphasis on the relationships between language development and cognitive development. We will study the ideas of major theorists: Piaget, Erikson, Bruner, Vygotsky, Mead, and others who address the development of children's representational thinking, language, and cross-cultural and family influences on development and learning. We will also explore current research on brain development in the first five years of life from a critical perspective and with an emphasis on practical implications. We will study current research and theories of cognitive, social, and emotional development as related to oral, written, and spoken language development in home and in school/care environments. The development of both first and second languages will be examined. Grade only. Prerequisite: graduate student in Education or permission of instructor. Taught spring semester of even years.

**EDEC 539 RESEARCH EARLY CHILDHOOD EDUCATION (3)**

Critical analysis and evaluation of qualitative and quantitative research in Early Childhood Education, and implications for curriculum in schools and care programs serving children infancy through the primary grades of elementary school are addressed. Research and policy studies addressing quality indicators in programs for young children across all areas of curriculum are included, as well as factors such as the physical environment, schedules, and teachers' professional development. The focus is on integration of research findings and methodologies to improve the quality of programs designed to serve young children and their families. Grade only. Prerequisite: permission of instructor or acceptance to Master of Arts in Education program.

**EDEC 578 PROJECT CONTINUATION (1-3)****EDEC 593 APPROACHES TO SCHOOLING EARLY CHILDHOOD EDUCATION (3)**

Historical and philosophical perspectives on the care and education of young children from early centuries to the present day, including models from Europe, China, Japan, Africa and Latin America. Topics include the roles of the child and the teacher, design of curriculum and environments for learning, and approaches to diversity in classrooms and communities. Grade only.

**EDEC 595 SPECIAL STUDIES (1-4)**

## **Education: Leadership (EDEL)**

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### **EDEL 580A INTRODUCTION TO EDUCATION LEADERSHIP AND SCHOOL MANAGEMENT (3)**

This course is the introductory course for the Sonoma State University Preliminary Administrative Services Credential program. Candidates examine concepts of leadership, school culture, the dynamics involved in change, democratic decision-making and school governance, diversity, frames of reference, and the roles of an educational leader. Current practices are examined with a view of rethinking schools for the 21st Century based on developing educational leadership values. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

### **EDEL 580B ADVANCED EDUCATIONAL LEADERSHIP AND SCHOOL MANAGEMENT (3)**

This course is designed as the culminating course in the Preliminary Administrative Services Credential Program. The goal of the course is to learn successful strategies and approaches involved in school improvement and ways to develop the school as an organization. Candidates engage in a self-assessment of their skills and abilities and personal theory of leadership in preparation for administrative positions. Grade only. Prerequisites: Admission to the Preliminary Administrative Services Credential Program and EDEL 580A.

### **EDEL 581 MANAGEMENT OF EDUCATIONAL PERSONNEL: POLICIES AND PROCEDURES (3)**

Candidates examine human resource administration as it relates to educational leadership and develop an understanding of the importance and dimensions of issues related to human resources that lead to positive and productive educational settings. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

### **EDEL 582 EDUCATIONAL POLICY AND POLITICS (3)**

This course is an examination of federal, state, and local politics and policy and their effects on school districts and schools. Emphasis is placed on the issues of educational reform, accountability and finance. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

### **EDEL 583 SCHOOL LAW (3)**

This course is a study of the governance of school and the various sources of regulation impacting education. Case studies and application of various sources of law are explored, including student rights, torts, first amendment issues, special education law, teacher rights, contracts, church and state issues, and discipline. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

### **EDEL 587A BEGINNING FIELD EXPERIENCE IN ADMINISTRATION (3)**

Intensive field experience in school administration that extends learnings and competencies in program coursework. Prerequisites: admission to the Preliminary Administrative Services Credential program and consent of instructor.

### **EDEL 587B ADVANCED FIELD EXPERIENCE IN ADMINISTRATION (3)**

This course is the completion of the fieldwork requirement for the program. Candidates provide evidence that they have successfully met all six administrative standards in their fieldwork experiences. Each student completes field assignments and projects that apply learning to educational settings. Cr/NC. Prerequisites: Admission to the Preliminary Administrative Services Credential Program and EDEL 587A.

### **EDEL 588 EDUCATIONAL CURRICULUM, INSTRUCTION AND PROGRAM ASSESSMENT (3)**

Candidates study curriculum theory and curriculum ideologies found in public and private schools. Candidates examine the relationship between standards and curriculum design. The candidate learns how to plan and evaluate curriculum and the critical role of the administrator as an instructional leader. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

### **EDEL 589 LEADERSHIP FOR DIVERSE POPULATIONS AND COMMUNITIES (3)**

This course is designed for candidates to reflect on their own culture and to better understand the point of view of a variety of cultures, ethnic groups, special groups in a diverse society. The goal of the course is to learn successful strategies and approaches involved in working with very diverse communities and how a leader can move their school or district towards high levels of cultural proficiency. The course examines the guiding principles and essential elements of cultural proficiency. Grade only. Prerequisite: Admission to the Preliminary Administrative Services Credential Program.

### **EDEL 590A INDUCTION PLAN (2)**

Students develop, in consultation with their employer and SSU program faculty, an induction plan that meets the Professional Administrative Services Credential requirements. The plan reflects an assessment of the administrator's strengths and needs, future professional goals, and requirements of the position in which the student works. Cr/NC. Prerequisite: Admission to the Professional Administrative Services Credential Program.

### **EDEL 590B ASSESSMENT OF COMPLETION OF THE INDUCTION PLAN (2)**

During the final seminar the Professional Administrative Services Credential (PASC II), the candidate, in conjunction with program faculty and the employing school district, evaluates the degree of completion of the induction plan proposed in EDEL 590A. The competency review includes the development of an on-going future professional development plan that reflects student strengths and areas of need identified during the PASC II Program. Cr/NC. Prerequisites: Admission to the Professional Administrative Services Credential Program and EDEL 590A.

### **EDEL 595 SPECIAL STUDIES (1-4)**

#### **EDEL 596A INTRODUCTION TO ADVANCED EDUCATIONAL PROBLEMS (2)**

Students will be involved in site-based problem solving and analysis, the generation and field implementation of appropriate solutions, and an evaluation of the chosen solutions. Planning, discussion, monitoring, coaching and evaluation will occur in a seminar setting. Cr/NC only. This course is part of the Professional Administrative Services Credential program. Prerequisites: EDUC 590A, possession of Preliminary Administrative Services Credential, and admission to the Professional Administrative Services Credential program.

#### **EDEL 596B COMPLETION OF ADVANCED EDUCATIONAL PROBLEMS (2)**

Same as EDUC 596A. Cr/NC only. Prerequisites: EDUC 590A, a Preliminary Administrative Services Credential, and admission to the Professional Administrative Services Credential program.

#### **EDEL 596C INTRODUCTION TO COLLABORATIVE ACTION RESEARCH (2)**

Same as EDUC 596A. Cr/NC only. Prerequisites: EDUC 590A, possession of Preliminary Administrative Services Credential, and admission to the Professional Administrative Services Credential program.

**EDEL 596D COMPLETION OF COLLABORATIVE ACTION RESEARCH (2)**

Same as EDUC 596A. Cr/NC only. Prerequisites: EDUC 590A, possession of Preliminary Administrative Services Credential and admission to the Professional Administrative Services Credential program.

**Education: Multiple Subject (EDMS)**

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**EDMS 100 EXPLORATIONS IN TEACHING (2)**

This seminar is designed as a reflection space for students who are considering the teaching profession. They will observe and interact with children and teachers in elementary schools, as well as read about forces that shape teachers and issues they confront in our educational system. They will analyze what it means to be a teacher today in our elementary schools, facing the challenges of diversity, equity and quality of education.

**EDMS 200 BEING A TEACHER IN TODAY'S SCHOOLS (2)**

This seminar continues the process of exploration, building on ED/LIBS 100, where students discussed what it means to be a teacher in our schools today. Here the focus is on the student in elementary education. From an educational perspective, students will consider what it means to be a student; what forces and circumstances shape their identity and their journey as students in elementary education. Students will elaborate their teaching philosophy throughout the semester, interweaving information from their own lives as students, from the readings and from their field observations.

**EDMS 411 TEACHING SECOND LANGUAGE LEARNERS (3)**

This course examines first and second language acquisition and major second language teaching methodologies in relation to children's language development in school settings. In line with state standards, the purpose of this three-unit course is to help students learn and apply a variety of theories, methods, materials, media, and strategies to provide instruction that is appropriate to assessed proficiency levels and needs of English learners and to make academic content accessible. Focus is on instructional principles and practices for learner development of comprehensive English language and literacy skills as well as academic language proficiency. The main goal is to learn to help all students become active, engaged, and independent learners.

**EDMS 463 TEACHING READING AND LANGUAGE ARTS TO YOUNGER STUDENTS (3)**

Philosophy, goals, and pedagogy in reading and language arts in grades K-3. Candidates examine early literacy development and teaching/learning processes in relation to state content standards. They learn to assess and build upon students' oral and written language strengths with attention to print awareness, language cueing systems, functions and conventions of oral and written language, literature study and composing strategies. Grade only.

**EDMS 464 TEACHING READING AND LANGUAGE ARTS TO OLDER STUDENTS AND STRUGGLING READERS (2)**

Philosophy, goals, and pedagogy in reading and language arts in grades 3-8. Designed for student teachers to refine and extend their knowledge of literacy development and teaching/learning processes in language arts. Candidates design and teach literacy lessons in their classrooms and work with struggling readers using assessment data and state content standards. Emphasis is on reading and writing across the curriculum, and meeting the literacy needs of all learners. The PACT teaching event is scaffolded in this course. Grade only.

**EDMS 470 MULTICULTURAL PEDAGOGY (3)**

Through multicultural approaches, activities, and materials, candidates examine the ways in which culture, ethnicity, race, class, gender, language, disability, and family structure impact teaching and learning. Candidates consider the different beliefs, identifies, cultural knowledge, and social relationships that a diverse student population brings to the classroom, and develop multicultural teaching strategies.

**EDMS 471 TEACHING SOCIAL SCIENCES IN A MULTICULTURAL SOCIETY (2)**

Credential candidates develop their pedagogical content knowledge in social studies, and explore K-8 educational practices that establish social studies as a catalyst for promoting civic responsibility and cultural understanding. Upon course completion, students will gain experience with integrating literature, primary documents, secondary resources, technology, hands-on activities, and the arts into their social studies curriculum. Students will also become familiar with state and national standards to inform curricular decisions.

**EDMS 474 MATHEMATICS IN THE ELEMENTARY SCHOOL (3)**

Methods, principles, goals, and materials for elementary mathematics teaching. This course develops effective strategies and techniques for planning, teaching, assessing and adapting mathematics instruction; explores current practices, issues, and resources in mathematics education; deepens students' understanding and appreciation of elementary mathematics; and builds knowledge of children's mathematics thinking, learning, development, and diversity. Learner-centered, meaningful mathematics instruction is modeled and analyzed throughout. Course content is aligned with national professional standards and California content and performance standards.

**EDMS 475 SCIENCE IN THE ELEMENTARY SCHOOL (3)**

Methods, principles, goals, and materials for elementary science teaching. This course develops effective strategies and techniques for planning, teaching, assessing and adapting science instruction; explores current practices, issues, and resources in science education; deepens students' understanding and appreciation of elementary science; and builds knowledge of children's science thinking, learning, development, and diversity. Learner-centered, meaningful science instruction is modeled and analyzed throughout. Course content is aligned with national professional standards and California content and performance standards.

**EDMS 476F PARTICIPANT OBSERVATION (3)**

Fifteen week field placement (approximately 14 hours per week). Candidates observe classroom routines, activities, curriculum materials and instruction for each subject area. Candidates implement curriculum that is sensitive to students' language needs and is open to considerations of diversity. Plan for small and whole group instruction. Prerequisites: Certificate of Clearance, negative TB, CSET, School of Education Legal Seminar, EDUC 417 (or LIBS equivalent), EDEC 420 (or LIBS equivalent). Cr/NC only.

**EDMS 476S PARTICIPANT OBSERVATION SEMINAR (2)**

On-campus seminar. Components include lesson planning, peer observation, digital portfolio, physical education and classroom management. Grade only.

**EDMS 481A INTERNSHIP SUPERVISION (3)**

This multiple-session supervision and seminar topics address professional issues faced by MS interns. Issues in education are examined through the perspectives of theoretical and practice-based research and the educational foundations of history, philosophy, sociology, anthropology, and politics of education. Interns will analyze their current classroom practices and influences on their teaching, conduct teacher research, and develop a professional portfolio consistent with their district professional growth plan and internship individual learning plan. Cr/NC only.

**EDMS 481B INTERNSHIP SUPERVISION (3)**

This multiple-session supervision and seminar topics address professional issues faced by MS interns. Issues in education are examined through the perspectives of theoretical and practice-based research and the educational foundations of history, philosophy, sociology, anthropology, and politics of education. Interns will analyze their current classroom practices and influences on their teaching, conduct teacher research, and develop a professional portfolio consistent with their district professional growth plan and internship individual learning plan. Cr/NC only.

**EDMS 481C INTERNSHIP SUPERVISION (3)**

This multiple-session supervision and seminar topics address professional issues faced by MS interns. Issues in education are examined through the perspectives of theoretical and practice-based research and the educational foundations of history, philosophy, sociology, anthropology, and politics of education. Interns will analyze their current classroom practices and influences on their teaching, conduct teacher research, and develop a professional portfolio consistent with their district professional growth plan and internship individual learning plan. Cr/NC only.

**EDMS 481D INTERNSHIP SUPERVISION (3)**

This multiple-session supervision and seminar topics address professional issues faced by MS interns. Issues in education are examined through the perspectives of theoretical and practice-based research and the educational foundations of history, philosophy, sociology, anthropology, and politics of education. Interns will analyze their current classroom practices and influences on their teaching, conduct teacher research, and develop a professional portfolio consistent with their district professional growth plan and internship individual learning plan. Cr/NC only.

**EDMS 482F STUDENT TEACHING AND SEMINAR (10)**

Fifteen week student teaching (4.5 days per week). Candidates implement curriculum that is sensitive to students' language needs and issues of diversity. Teaching small and whole group instruction leads to teaching the entire curriculum and managing the school day during a two week take over. Prerequisites: CBEST and Subject Matter or CSET, EDMS 476F and Phase I courses. Corequisite: EDMS 464. Cr/NC only.

**EDMS 482S STUDENT TEACHING SEMINAR (2)**

On-site student teaching seminar that covers all aspects of student teaching including the digital portfolio and becoming a reflective educator. Students meet with their supervisors every week on-site. Taken concurrently with EDMS 482F.

**EDMS 495 SPECIAL STUDIES (1-4)**

## **Education: Reading and Language (EDRL)**

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### **EDRL 507 RESEARCH IN LANGUAGE AND LITERACY (3)**

Critical analysis and evaluation of theory and research in reading and language and the implications for curriculum. A focus of the course is literacy. Students may pursue projects on literacy at any age. Grade only. Prerequisite: admission to the reading/language or early childhood education M.A. program.

### **EDRL 521A LANGUAGE DEV IN FIRST AND SECOND LANGUAGES (3)**

Research and theory in oral and written language development in home and subsequent languages, and the relationship between literacy learning and teaching. Special attention is given to factors that promote concept development and confident effective language use. Attention to the structure of the English language, including phonology, orthography, morphology, syntax and semantics. Contributions from many fields, (e.g., psycholinguistics, sociolinguistics, anthropology, and developmental psychology) provide perspectives for analysis of language acquisition and learning, evaluation of current educational practice, and planning for effective classroom experiences. Transfer strategies from primary language reading skills into English language reading skills are presented based on the tenets of effective language acquisition.

### **EDRL 521B READING AND LANGUAGE ARTS IN FIRST AND SECOND LANGUAGES (3)**

Research, theory, and practice focused on written language development in home and subsequent languages. Students read, discuss and critique theory and research into processes of reading and writing, with an emphasis on writing and written communication. Includes the theoretical foundation of assessment approaches for documenting reading and language arts progress and the relationship between literacy learning and teaching. Topics include sociolinguistic and psycholinguistic factors in reading and writing development, assessment-based reading and writing instruction for English language learners and struggling readers, emergent literacy at all ages, comprehension and study strategies, instructional planning, and evaluation and intervention approaches. Students develop a comprehensive set of strategies for promoting fluent reading, confident writing, and purposeful conversation for diverse student populations. Grade only. Applicable to the reading/language program. Prerequisite: approval of the program.

### **EDRL 522 ASSESSMENT AND TEACHING IN READING AND LANGUAGE ARTS (3)**

Principles and procedures for literacy and content learning in English in classrooms with bilingual/bicultural students, as well as the design and selection of materials, methods and contexts for literacy and content instruction at all ages. This course also focuses a variety of strategies for Specially Designed Academic Instruction in English (SDAIE) Field Studies. Applies to concentration in reading/language. Grade only. Prerequisite: approval of the program.

### **EDRL 523 CURRICULUM DEVELOPMENT IN LANGUAGE AND LITERACY (3)**

Critical analysis and development of learning-centered language and literacy curriculum. Evaluation and selection of materials for instruction. Grade only. Applicable to the reading/language program. Prerequisite: approval of the program.

### **EDRL 524 LITERATURE AND LITERACY (3)**

Study of children's and adolescents' literature, authors and ways of using literature in the classroom. Grade only. Applicable to the reading/language program. Prerequisite: approval of the program.

### **EDRL 525 LEADERSHIP AND POLICY IN LITERACY PROGRAMS (3)**

An investigation of decision making and policies for teaching reading and writing and program coordination; current influences, such as cross-cultural and multilingual classrooms, testing, technology, and community involvement. Extensive field experience. Grade only. Applicable to the reading/language program. Prerequisite: approval of the program.

### **EDRL 527A CLINICAL FIELD EXPERIENCE IN READING AND LANGUAGE ARTS (3-6)**

Supervised practicum for Certificate candidates. In a Reading and Writing Workshop format, candidates work with K-12 students under the supervision of and in collaboration with clinical faculty and Reading and Language Arts Specialist Credential candidates. Certificate candidates are assigned to students based on the candidate's prior program coursework and professional background, in order to assure diversity of experience with readers and writers of varying ages and abilities. Certificate candidates conduct formal and informal assessments and plan instruction and intervention for students in the clinic. Based on assessment findings candidates collaborate in the delivery of appropriate instruction and interventions that utilize learners' strengths in order to address their needs. Candidates participate in clinical conferences and write reports in which they summarize and critique assessment findings and the success of the instruction. Opportunities will be available for candidates to work with beginning readers, struggling readers at different levels, English language learners, and successful readers and writers.

### **EDRL 527B ADVANCED CLINICAL FIELD EXPERIENCE IN READING AND LANGUAGE ARTS (3-6)**

Supervised practicum for Reading and Language Arts Specialist Credential candidates. In a Reading and Writing Workshop format, Credential candidates supervise Certificate candidates as they work with K-12 students. In turn, Credential candidates are supervised by university and clinical faculty. In collaboration with clinical faculty and other Credential candidates, they assume leadership roles, overseeing all assessment and instructional practices of Certificate candidates and directing all clinic activities. Specialist Credential candidates play a major role in clinical conferences and in the preparation of clinical reports. They also work directly with students in the clinic, providing demonstration of appropriate assessment and intervention strategies and to extend their experience with readers and writers of varying ages and abilities. Opportunities will be available for candidates to work with beginning readers, struggling readers at different levels, English language learners, and successful readers and writers.

### **EDRL 529 EVALUATION IN READING AND LANGUAGE ARTS PROGRAMS (3)**

Philosophy, purposes, and procedures for evaluation of reading, writing, and oral language. Students examine a variety of evaluation tools and procedures (formal and informal, group and individual) with respect to how teachers can use these instruments and procedures to inform literacy instruction and intervention for diverse populations. Selected procedures are used with struggling readers to identify their reading and writing strengths and needs. Topics include the role of the literacy environment in evaluation results, methods of reporting progress to students, parents, and administrators, and the role of standardized testing in schools. Students develop criteria for reading and language arts program evaluation, maintenance, and enhancement.

### **EDRL 595 SPECIAL STUDIES (1-4)**

## **Education: Special Education (EDSP)**

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### **EDSP 400 FOUNDATIONS OF SPECIAL EDUCATION (3)**

In this course, students are presented with the history, philosophy and legal requirements related to the implementation of special education services for students with disabilities and their families. Foundational knowledge on typical and atypical human development, examination of disability risk conditions, understanding the Individualized Education Program (IEP) framework and process and the importance of the role of family, school and community in supporting the well being of individuals with disabilities is provided. Additional emphasis is placed on understanding and examining diverse learners and their families within the context of special education. Class readings and course assignments are integrated within this class to establish the connection from special education theory to practice culminating the development of a personal philosophy of special education.

### **EDSP 421A EFFECTIVE PRACTICES THAT SUPPORT STUDENTS WITH DIVERSE LEARNING NEEDS (3)**

### **EDSP 421B EARLY FIELD PLACEMENT (1)**

### **EDSP 421C USING EDUCATIONAL AND ASSISTIVE TECHNOLOGY (1)**

### **EDSP 422 COLLABORATIVE PARTNERSHIPS AND SPECIAL EDUCATION (4)**

Candidates are presented with theory, concepts and practices related to the implementation of special education services for students with disabilities and their families. Foundational knowledge on the identification of disabilities, service delivery models, and the legislative framework that mandates key special education practices are explored. Additional emphasis is placed on the communication, consultation and collaboration skills useful in forming productive partnerships with families, school personnel and community service providers. Coursework and field assignments are integrated to support the development of a personal philosophy of special education that links theory to practice. Grade only. Prerequisite: Admission to the Education Special Credential program or by permission of the instructor.

### **EDSP 422A CASE MANAGEMENT AND TRANSITION PLANNING IN SPECIAL EDUCATION (3)**

In this course and accompanying seminar, students will explore the communication and collaboration skills necessary for effective case management and transition planning for individuals with exceptional needs. Emphasis is placed on examining the skills, models and strategies for successful collaboration in the context of special education service delivery requirements and models. Additional emphasis is placed on developing a comprehensive case management system as well as planning, implementing and evaluating transition services across the lifespan for all learners. Class readings, course assignments and specific fieldwork activities (422B) are integrated within these classes to establish the connection from theory to practice culminating in the development of a case management notebook. Concurrent enrollment in EDSP 422A and 422B is expected.

### **EDSP 422B PARTICIPANT OBSERVATION/FIELDWORK (1)**

In this course and accompanying seminar, students will explore the communication and collaboration skills necessary for effective case management and transition planning for individuals with exceptional needs. Emphasis is placed on examining the skills, models and strategies for successful collaboration in the context of special education service delivery requirements and models. Additional emphasis is placed on developing a comprehensive case management system as well as planning, implementing and evaluating transition services across the lifespan for all learners. Class readings, course assignments and specific fieldwork activities (422B) are integrated within these classes to establish the connection from theory to practice culminating in the development of a case management notebook. Concurrent enrollment in EDSP 422A and 422B is expected.

### **EDSP 423 ASSESSMENT, CURRICULUM AND INSTRUCTIONAL STRATEGIES FOR STUDENTS WITH DISABILITIES (4)**

Candidates explore the basic principles and strategies of assessment, curriculum, and instruction that are appropriate for individuals with diverse special education needs. Candidates learn to assess student needs utilizing a variety of formal and informal assessments and to develop appropriate goals and learning objectives based on assessment findings. The linkage between assessment, curriculum, and instruction is emphasized, including monitoring of student learning. Legal, ethical, and diversity issues related to assessment are explored. Eligibility criteria and characteristics of students with disabilities are also a focus of this course. Grade only. Prerequisite: Admission to the Education Specialist Credential program or by permission of the instructor.

### **EDSP 424 CLASSROOM ECOLOGY: MANAGEMENT, DISCIPLINE AND BEHAVIORAL SUPPORTS (4)**

EDSP 424 provides candidates with an overview of both class-wide and individual classroom behavior management. Theories and philosophies of creating classroom ecologies, management strategies, discipline and behavioral supports are considered to inform how special educators teach and enforce pro-social behavior for all students. Functional assessment and analysis are used to develop positive behavior support plans for children with more significant behavior needs. The goal of this course is to help candidates learn to promote the social competence, self-management and communication skills of students with special needs through behavior support. Grade only. Prerequisite: Admission to the Education Special Credential program or by permission of the instructor.

### **EDSP 425 DEV ACAD PERFORMANCE-MILD/MODERATE (4)**

EDSP 425 is designed to provide candidates in the Education Specialist mild to moderate disabilities credential program with a research-based perspective on developing academic performance for students with mild to moderate disabilities. The relationship among assessment, curriculum, and instruction is investigated through the examination and application of a variety of informal assessments, instructional strategies and curricula within the context of access to the core curriculum and content standards. Curricular modifications and instructional strategies that support students with mild/moderate disabilities in inclusive settings are explored. Coursework follows a "theory into practice" format consisting of classroom simulations, visitations, guided activities, and student projects using field-based lessons. Grade only. Prerequisite: Admission to the Education Special Credential program or by permission of the instructor.

**EDSP 428 PROFESSIONAL SEMINAR: TOPICS IN THE EDUCATION OF STUDENTS WITH MODERATE/SEVERE DISABILITIES (4)**

EDSP 428 is designed to provide candidates in the Education Specialist moderate to severe disabilities credential program with a research-based perspective on developing skills that are functionally tied to real world demands and that are referenced as the requirements for successful inclusion in school, community and workplace. The relationship among assessment, curriculum, and instruction is explored through the examination and implication of a variety of informal assessments, instructional strategies and curricula. Curricular modifications and instructional strategies that support students with moderate/severe disabilities in inclusive settings are investigated within the context of access to the core curriculum and content standards. Topics include medical and health issues and competencies for teachers of students who are medically fragile or have multiple disabilities and the building of the circle of supports for learners with significant disabilities and health-related needs. The concepts of the "least restrictive environment," dignity of risk, school to work transition, self-advocacy, and inclusive communities are explored. Grade only. Prerequisite: Admission to the Education Special Credential program or permission of the instructor.

**EDSP 430 SPECIAL EDUCATION FOR TEACHERS (4)**

A survey course that presents theory, program concepts, and teaching practices related to students with special educational needs. Legislation, public policy, and advocacy related to the full inclusion of students with special needs into the least restrictive environment are reviewed. Additionally, assessment, curriculum and instructional modifications designed to accommodate learners with diverse backgrounds (cultural, linguistic, socioeconomic) and abilities are addressed. Thirty hours of required field experience are an integral part of the course. Grade only. This course meets the special education requirements to convert a basic credential to a Professional Clear Credential and is a required beginning course for students in the Education Specialist Credential program.

**EDSP 432 DESIGNING INCLUSIVE ENVIRONMENTS IN EARLY CHILDHOOD EDUCATION (4)**

An introduction to theories, research, and practices related to providing appropriate services for young children with special needs (birth through 8). Topics include: early identification of exceptional needs, collaborative partnerships for inclusive education, the role of parents, strategies and resources for supporting the educational, social, behavioral and/or medical needs of young children, and the requirements of special education laws. Grade only.

**EDSP 433 TEACHING ADOLESCENTS WITH SPECIAL EDUCATION NEEDS (3)**

EDSP 433 is an introductory course which presents a survey of theory, program concepts and teaching practices related to students with special needs. Emphasis is placed on understanding and addressing the educational and social needs of secondary aged students with disabilities as well as gifted and talented students. Legislation, policies, and practices pertaining to the education of students with special needs in a secondary setting are presented. Knowledge, skills, and strategies including disability and gifted and talented identification, major roles and responsibilities in the Individual Education Program (IEP) process and collaboration between general and special educators aimed at successful inclusive educational practices are also addressed. 30 hours of field experience are included. Elements of this course will include the use of the Internet and the World Wide Web.

**EDSP 460 TEACHING EVENT SEMINAR (4)****EDSP 464A PARTICIPANT OBSERVATION (2)**

Provides an early fieldwork experience for education specialist credential candidates not currently working in special education as Interns. Candidates become acquainted with the daily operation of a special education classroom within the context of the school and the community. 90 hours observation and participation in a special education classroom during which the candidate observes curriculum, instruction, classroom ecology, IEP meetings and assessment. Cr/NC. Prerequisite: Admission to Education Special Credential program. Requires concurrent enrollment in EDSP 464B.

**EDSP 464B PARTICIPANT OBSERVATION: SEMINAR (2)**

This seminar, to accompany EDSP 464A, allows candidates to discuss and evaluate their experiences observing in special education classrooms, with a focus on the social context of the classroom, school and community. The roles of specialists and others working in collaboration with the special educator are investigated and links between theory and practice are explored. Grade only. Prerequisite: Admission to the Education Special Credential Program. Required concurrent enrollment in EDSP 464A.

**EDSP 465 PRACTICUM: MILD/MODERATE DISABILITIES (10)**

EDUC 465 represents the student teaching component of the Mild/Moderate Disabilities credential program. Student teaching is a culminating experience that must occur in the final semester of the program. Credential candidates student teach for 12 weeks under the guidance and supervision of a duly selected master teacher in the schools as well as a university supervisor from Sonoma State University. Student teaching sites are selected to reflect current prevailing practices in the education of learners with mild or moderate disabilities. Thus, resource specialist programs, special day classes, transitional classes, inclusion programs, and "non-public schools" certified by the California Department of Education all represent possible placement sites for student teachers. Candidates may receive student teaching credit for assignments where they are also the "teacher of record," or otherwise employed, contingent on suitable supervision and guidance availability on-site. Cr/NC only. Prerequisites: Admission to the Education Specialist Mild/Moderate Disabilities credential program, and EDUC 422, EDUC 423A, EDUC 424A. Corequisite: EDUC 466.

**EDSP 466 SEMINAR: MILD/MODERATE DISABILITIES (2)**

EDUC 466 represents the seminar which accompanies the student teaching component of the Education Specialist Mild/Moderate Disabilities Credential program. The seminar is designed to provide a problem-solving forum for the myriad of educational, social, and psychological issues which tend to arise as part of student teaching. Guidance and support aimed at a successful student teaching experience is offered through EDUC 466. In addition to the instructor of EDUC 466, occasional guest visits by student teaching supervisors, resident teachers, and school administrators will complement the class sessions. Candidates will also be provided time to form cooperative support groups around commonalities of assignment or problem areas. Cr/NC only. Prerequisites: Admission to the Education Specialist Mild/Moderate Disabilities Credential program, EDUC 422, EDUC 423A, EDUC 424A. Corequisite: EDUC 465.

**EDSP 467 PRACTICUM: MODERATE/SEVERE DISABILITY (10)**

EDSP 467 represents the student teaching component of the Education Specialist Moderate/Severe Disabilities Credential program. Student teaching is a culminating experience that must occur in the final semester of the program. Credential candidates student teach for 12 weeks under the guidance and supervision of a duly selected master teacher in the schools as well as a university supervisor from Sonoma State University. Student teaching sites are selected to reflect current prevailing practices in the education of learners with moderate or severe disabilities. Thus, resource specialist programs, special day classes, transitional classes, inclusion programs, and "non-public schools" certified by the California Department of Education all represent possible placement sites for student teachers. Candidates may receive student teaching credit for assignments where they are also the "teacher of record," or otherwise employed, contingent on suitable supervision and guidance availability on-site. Cr/NC only. Prerequisites: Admission to the Education Specialist Moderate/Severe Disabilities credential program, and EDUC 422, EDUC 423A, EDUC 424A. Corequisite: EDUC 468.

**EDSP 468 SEMINAR: MODERATE/SEVERE DISABILITIES (2)**

EDUC 468 represents the seminar that accompanies the student teaching component of the Education Specialist Moderate/Severe Disabilities Credential Program. The seminar provides a problem-solving forum for the myriad of educational, social, and psychological issues which tend to arise as part of student teaching. Guidance and support aimed at a successful student teaching experience is offered through EDUC 468. In addition to the instructor of EDUC 468, occasional guest visits by student teaching supervisors, resident teachers, and school administrators will complement the class sessions. Candidates will also be provided time to form cooperative support groups around commonalities of assignment or problem areas. Cr/NC only. Prerequisites: Admission to the Education Specialist Moderate/Severe credential program, EDUC 422, EDUC 423A, EDUC 424A. Corequisite: EDUC 467.

**EDSP 481 INTERNSHIP PRACTICUM/SEMINAR (4)**

This course provides on-going support and guidance to Internship teachers serving diverse learners with special needs. The course focuses on examining the California Standards for the Teaching Profession and connecting these standards with university coursework and the Internship's teaching experience. This is a hybrid course in which teachers meet in a seminar format (face to face) and in an online format. The course focuses on problem solving using the standards, university courses, and individual teaching experiences as frames of reference. Learning from and supporting other interns by sharing individual teaching experiences is the major emphasis of this course as well as offering support in developing the program portfolio. In addition to the seminar, the practicum will provide support and guidance to interns in their classrooms. On-site support teachers and university faculty will visit teacher's classrooms, conference with teachers about their needs, observe classroom practices, and provide feedback on observations.

**EDSP 490B AUTISM SPECTRUM DISORDERS: SEMINAR AND FIELDWORK (2)**

This practicum and attached seminar will provide candidates with the opportunity to implement evidence-based practices with students diagnosed on the autism spectrum. Candidates will also engage in progress monitoring and the selection and administration of appropriate assessment measures. The seminar will extend candidate understanding of the service delivery options available to students with Autism Spectrum Disorders.

**EDSP 495 SPECIAL STUDIES (1-4)****EDSP 501 FORMATIVE ASSESSMENT AND INDUCTION INTO TEACHING (3)**

Education 501 is the initial course in the Professional Induction Credential program for the Educational Specialist Credential Program. This course offers (1) a forum for the development of an individualized plan for the induction of new special education teachers into the profession of Special Education, (2) a format for self reflection and evaluation of teaching practices through the analysis of teaching videos, (3) the development of an applied field project developed in response to the teachers' areas of professional needs and interests, and (4) opportunities to participate in a Professional Learning Community. The Individual Learning Plan or similar Induction Plans developed during Preliminary Level I program forms the basis of the development of the Professional Induction activities. The candidates develop the Induction Activities with support and approval of their university instructor and school district mentor/support provider and within a research-based perspective.

**EDSP 502 ADVANCED PEDAGOGY IN SPED (3)**

Candidates will deepen their understanding of pedagogies most effectively and equitably used to support the learning and behavioral needs of children with disabilities as well as children with disabilities who are also English language learners. Multiple assessment measures, including progress monitoring tools, will be linked to instructional planning to differentiate lessons according to student needs within the context of grade level standards and curriculum frameworks.

**EDSP 503 LEADERSHIP LAW AND ADVOCACY IN SPECIAL EDUCATION (3)****EDSP 504 FORMATIVE ASSESSMENT AND INDUCTION CULMINATION (3)****EDSP 511 PROFESSIONAL INDUCTION PLAN: SUP DEV (1)**

EDUC 511 is the initial course in the Professional Level II Education Specialist Credential program. This course offers a forum for the development of an individualized plan for the induction of new special education teachers into the profession of Special Education. The Individual Learning Plan developed during Preliminary Level I forms the basis for development of the induction plan. The Professional Induction Plan is developed in response to the new teachers' areas of professional needs and interests. It is developed by the candidate with University faculty, school district mentors/ support providers, and other teachers. Cr/NC only. Prerequisite: Admission into the Professional Level II Education Specialist Credential program.

**EDSP 512 ADVANCED ISSUES IN ASSESSMENT, CURRICULUM, AND INSTRUCTION FOR STUDENTS WITH DISABILITIES (3)**

EDUC 512 is part of the Professional Level II Education Specialist Credential program. Foundational knowledge in assessment, curriculum, and instruction is extended within EDUC 512. Candidates gain advanced skills in planning, conducting, reporting, and utilizing a variety of assessments, and in integrating assessment results into instructional planning. Issues such as assessment bias and research, law, and policies and procedures pertaining to the assessment process are addressed. Broad curricula areas including vocational development and community living preparation, diverse instructional approaches, and educational technologies are also addressed. Adaptation and modification of assessment, curriculum, and instruction to meet the individuals needs of students with disabilities is a course focus. Prerequisite: Admission into the Professional Level II Education Specialist Credential Program.

### **EDSP 513 CURRENT AND EMERGING RESEARCH AND PRACTICE IN SPECIAL EDUCATION (3)**

EDUC 513 is part of the Level II Education Specialist Credential program. The course will critically examine emerging research on varied issues impacting special educational policy and practice. The value of empiricism as a philosophy, and data-based teaching practices will be explored. The issues surrounding quantitative and qualitative measurement along with varied conceptualizations of validity, reliability, and accountable practice will be explored via assigned readings and individual projects. These projects will require students to assess the research-based merits of selected special educational practices. Candidates will be required to triangulate various quantitative and qualitative measures of educational and policy effectiveness in order to render empirically informed conclusions about differential effects of various practices in the field of special education. Prerequisite: Admission into the Professional Level II Education Specialist Credential program.

### **EDSP 514 ADVANCED COMMUNICATION, COLLABORATION, AND CONSULTATION IN SPECIAL EDUCATION (3)**

EDUC 514 is a required course for the Professional Level II Education Specialist Credential program. EDUC 514 explores advanced issues surrounding communication, collaboration, and consultation in special education. The effective performance of educational leadership, advocacy, and team management, as well as methods for positively representing special education to parents, administrators, and other educators are addressed in the course. Additionally, skills and methods of collaborating and communicating with professionals and paraprofessionals about students' complex emotional and behavioral needs are addressed. The area of cross-agency transitional services and individualized transitional experiences are explored with emphasis on communication and collaboration across human service agencies. The development of collaborative planning, evaluation and refinement of instructional strategies, curriculum, adaptations and behavioral support are also required of candidates taking EDUC 514. Prerequisite: Admission into the Professional Level II Education Specialist Credential program.

### **EDSP 515 ADVANCED LEGAL ISSUES IN SPECIAL EDUCATION (3)**

EDUC 515 is part of the Professional Level II Education Specialist Credential program. Advanced legal issues faced by teachers, administrators, and parents in special education are addressed. Topics include entitlement to services, procedural due process, complaint resolution, least-restrictive environment, provision of related services, parent participation, shared decision-making, and other related legal issues. Candidates review federal legislation, case law, and statutory requirements within the context of understanding the legal framework underlying special education and providing services, which are legally, as well as program-matically, sound. Prerequisite: Admission into the Professional Level II Education Specialist credential program.

### **EDSP 516 PROFESSIONAL INDUCTION PLAN: CULMINATING ASSESSMENT (1)**

EDUC 516 is the final course in Professional Level II Education Specialist Credential program. This course creates a context for the culminating assessment of the individualized Professional Induction Plan. Candidates will collaboratively assess the elements presented in their induction plans developed in EDUC 511. Working with University faculty, school district support staff, and other teachers, the candidates will evaluate the attainment of their professional goals by reviewing the evidence contained in their Professional Portfolio and applied to their school settings. Areas for continued professional growth will also be identified. Cr/NC only. Prerequisite: Admission into the Professional Level II Education Specialist Credential program.

### **EDSP 578 PROJECT CONTINUATION (1-3)**

### **EDSP 595 SPECIAL STUDIES (1-4)**

## **Education: Single Subject (EDSS)**

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### **EDSS 418 LEARNING AND DEVELOPMENT IN ADOLESCENTS (3)**

This is a prerequisite course for admission to the Single Subject Credential Program. Students will become familiar with all areas of adolescent development including Physical, Cognitive, Identity, Social, Sexual and Moral as well as physical and psychological factors affecting adolescent health currently. Analysis of development in contexts such as family, school, culture, and mass media will be emphasized. Through reading, reflective writing and practical assignments, students will also become familiar with current adolescent issues, needs and experiences. The overall goal of the course is to translate this knowledge and familiarity in to effective learning environments for secondary students.

### **EDSS 442 TEACHING IN MULTICULTURAL SETTINGS (4)**

Exploration of theory and research on teaching, learning, and the curriculum and their relationship to teaching practice in middle, junior high, and senior high schools. Emphasis on teaching/learning situation applicable to all content areas and to issues of culture and diversity. All aspects of instructional planning, implementation, and evaluation are addressed, including classroom atmosphere, interpersonal skills, classroom leadership, management and discipline, interdisciplinary planning, and teaming and collaborative learning. Students develop a repertoire of teaching strategies that address the needs of diverse learners. Students develop materials that contribute to a program portfolio to be evaluated before continuation to student teaching. Grade only. Prerequisites: admission to the Single Subject CLAD Credential program, EDUC 417 and EDUC 418.

### **EDSS 443A OBSERVATION/PARTICIPATION IN MULTICULTURAL SETTINGS (2)**

Focused and systematic observation and structured participation in a middle, junior high, or senior high school classroom setting leading to a supervised student teaching experience. Cr/NC only. Prerequisites: admission to the Single Subject CLAD credential program, EDUC 417, EDSS 418, and EDSP 433. Must be taken concurrently with EDUC 443B.

### **EDSS 443B SEMINAR: CLASSROOM MANAGEMENT AND FIELD EXPERIENCE (3)**

This seminar accompanies EDSS 443A, Supervised Observation and Participation in Schools. The seminar serves three functions: (1) To guide students' observations with special emphasis on classroom management; (2) To serve as a liaison between the Single Subject program and the students' observation placements; and, (3) To prepare students for successful student teaching with the creation of a classroom management plan and detailed reflections on the three days teaching experience required for EDSS 443A and in preparation for PACT. Prerequisites: EDUC 417, EDSS 418.

### **EDSS 444 TEACHING IN THE CONTENT AREAS (4)**

Principles, methods, and materials for teaching particular academic content in middle, junior high and senior high schools. Emphasis is on applications of constructivist theory to teaching and learning, and on organization and representation of content in forms accessible to learners. Students prepare for and process their concurrent field experience in secondary classrooms. In addition, as part of the preparation for PACT (Performance Assessment for California Teachers), students learn to evaluate and critique the content and structure of lesson plans, instructional materials, and assessments of student performance tasks. Prerequisites: EDUC 417, EDSS 418, and admission to the Single Subject Credential program. Grade only.

**EDSS 446 LANGUAGE LITERACY ACROSS THE CURRICULUM: MIDDLE AND SECONDARY SCHOOL (4)**

Principles, methods, and materials for guiding students' literary development in subject areas at the secondary level. Includes literacy and language theory and current issues in reading/language pedagogy for first and second language learners. Emphasis is on the interrelationships between language systems and constructivist literacy theory and the cognitive, affective, and social aspects of literacy development in subject areas. Issues of cultural and language diversity related to competencies, bilingualism, classroom management, lesson and unit design using competencies, and dialect variation are integral to the course. Students develop materials that contribute to a program portfolio to be evaluated before continuation to student teaching. Grade only. Prerequisites: admission to the Single Subject or Education Specialist Credential program, EDUC 417, EDSS 418 and EDSP 433, or permission of instructor.

**EDSS 458 STUDENT TEACHING IN MULTICULTURAL SETTINGS (12)**

A supervised teaching experience in a multicultural middle, junior high, or senior high school setting under the guidance of a resident teacher and a University supervisor. Assignment consists of three teaching periods and two preparation periods daily. Two periods entail full student teaching responsibility as outlined in the Single Subject Handbook. The third period consists of assisting the resident teacher and/or limited teaching responsibilities in a supplemental authorization subject area. Student teachers may team teach in some or all of the classes. Cr/NC only. Prerequisites: successful completion of all Phase I courses and successful presentation of a program portfolio. Must be taken concurrently with EDSS 459.

**EDSS 458I INTERNSHIP-STUDENT TEACHING IN MULTICULTURAL SETTINGS (3-6)**

A supervised teaching experience in a multicultural middle, junior high, or senior high school setting under the guidance of a resident teacher and a university supervisor. Assignment consists of three teaching periods and two preparation periods daily. Two periods entail full student teaching responsibility as outlined in the single Subject Handbook. The third period consists of assisting the resident teacher and/or limited teaching responsibilities in a supplemental authorization subject area. Student teachers may team teach in some or all of the classes. Cr/NC only. Prerequisites: successful completion of all Phase I courses and successful presentation of a program portfolio. Must be taken concurrently with EDUC 459. Interns only. Permission to enroll from director of internship program required prior to registering.

**EDSS 459 SEMINAR FOR SECONDARY STUDENT TEACHERS (4)**

This seminar supports student teacher candidates during their student teaching semester. The course provides opportunities for candidates to exhibit and examine their teaching competence in regard to classroom management, curricular planning, instructional strategies for diverse learners, assessment, and professional development. Candidates assemble a teaching portfolio. In addition, the weekly seminar prepares candidates for the PACT Teaching Event, a summative performance assessment of the candidate's demonstrated ability to plan, implement, and assess a significant segment of teaching. Successful completion of the Teaching Event will be required to earn a California Preliminary Single Subject Credential. Prerequisite: successful completion of all Phase 1 courses. Must be taken concurrently with EDSS 458.

**EDSS 459I INTERNSHIP SEMINAR: STUDENT TEACHING MULTICULTURAL SETTINGS (2)**

Support seminar focusing on issues of classroom management, concerns related to the student teachers' classroom experiences, and professional growth and career development. Emphasis is on integrating content of Phase I courses, including CLAD competencies, into the student teaching experience. Students use materials from the program portfolio and the student teaching experience to develop a professional portfolio. Grade only. Prerequisites: successful completion of all Phase I courses and successful presentation of a program portfolio. Must be taken concurrently with EDUC 458. Interns only. Permission to enroll from director of internship program required prior to registering. Cr/NC only.

**EDSS 495 SPECIAL STUDIES (1-4)**

## Education: Teaching English to Speakers of Other Languages (EDTE)

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### EDTE 540 THEORIES AND RESEARCH IN SECOND LANGUAGE ACQUISITION (3)

This course will provide an overview and critical examination of the theories and research in second language acquisition (SLA) and will explore relationships between this work and second language teaching and learning. Major theories examined will include those from cognitive, psycholinguistic, sociolinguistic, and sociocultural perspectives. Prerequisite: Admission to SOE MA Program.

### EDTE 541 ADVANCED PEDAGOGICAL GRAMMAR (3)

In this course you will gain an understanding of the grammar of English and how to use this understanding in teaching English as a second or foreign language. We will explore a variety of current perspectives and approaches to describing and teaching grammar. Prerequisite: Admission to SOE MA Program, EDTE 544.

### EDTE 542 TEACHING MULTILINGUAL WRITERS (3)

This course will investigate the theory and practice of learning to write in a second language from an applied linguistics perspective. Topics will include the theoretical developments in L1 and L2 composition, current research issues and pedagogical concerns, among others. Prerequisite: Admission to SOE MA Program, EDTE 544.

### EDTE 543 PRACTICUM IN TEACHING ESL (3)

The practicum is designed to provide students with an opportunity to observe an ESL teacher (s) and to have a supervised experience in teaching English learners. A seminar accompanies the field experience. Prerequisite: Admission to SOE MA Program, EDTE 544.

### EDTE 544 ADVANCED METHODS OF TEACHING ENGLISH AS A SECOND/ FOREIGN LANGUAGE (3)

This course is designed to provide an in-depth study of methods for teaching English to non-native speakers at various levels. Students will link theory to practice through the study of current methods for teaching and developing speaking, listening, reading, and writing, processes in English. Prerequisite: Admission to SOE MA Program.

### EDTE 545 SPECIAL TOPICS IN TEACHING ESL/EFL (3)

Special Topics in the fields of applied and sociolinguistics related to teaching English as a second or foreign language will be offered on a rotating basis. Prerequisite: Admission to SOE MA Program.

## Engineering Science (ES)

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### ES 101A COMMUNICATION IN THE DIGITAL AGE (3)

Concept of digital age, technology and modern communications, understanding various routinely used technical terms and commonly known computer and communications components and devices; understanding digital voice, video and data communication, mobile communication and communication through internet; ill effects such as radiation, invasion of privacy, unethical usages and protection from them; assessment of learning. (The companion laboratory course ES 101B is strongly recommended; the course does not apply to ES major). Prerequisite: GE Math eligibility. GE Area: This course meets GE Area B3 requirement.

### ES 101B COMMUNICATION IN THE DIGITAL AGE LABORATORY (1)

Laboratory to demonstrate the concepts discussed in the course ES 101A and give hands-on experience to the students. (Does not apply to ES major). Co-requisite: ES 101A, or permission of the instructor. GE Area: This course meets the GE science laboratory requirement.

### ES 110 INTRODUCTION TO ENGINEERING AND LABORATORY EXPERIENCE (2)

Lecture, 1 hour. Laboratory, 3 hours. This course is designed to introduce principles of engineering to the students and expose them to the electronics and computer lab environment. The students are given opportunity to design and build some simple analog and digital circuits and make measurements using various types of lab equipment.

### ES 210 DIGITAL CIRCUITS AND LOGIC DESIGN (4)

Lecture, 3 hours. Laboratory, 3 hours. Logic gates, combinatorial logic and analysis and design of combinatorial circuits, electronic circuits for various logic gates. Flip-flops, registers, and counters, sequential circuits and state machines. Various logic families and comparison of their electrical characteristics such as fan-out, rise and fall times, delay, etc. Concepts of machine, assembly and high level languages and relationship between them, basic principles of computer design. Laboratory work will include designing, building and testing of digital circuits, logic and sequential circuits. Prerequisites: MATH 142E, Co-req: ES 230; or consent of instructor.

### ES 220 ELECTRIC CIRCUITS (3)

Lecture, 3 hours. Review of Kirchhoff's laws, circuit design, node and mesh analysis, etc.; Thevenin's theorem, Norton's theorem, steady state and transient analysis, transfer function. AC power and three-phase circuits, Y-Delta equivalents. Multi-port networks, two-port networks with energy storage, ideal transformers. Amplifiers and frequency response, filters. Prerequisites: ES 110 and MATH 211; Corequisite: ES 221 and PHYS 214, or consent of instructor.

### ES 221 ELECTRIC CIRCUITS LABORATORY (1)

Laboratory, 3 hours. Laboratory work on material treated in ES 220 emphasizing elementary design principles. Prerequisite: ES 110 and corequisite: ES 220.

### ES 230 ELECTRONICS I (3)

Lecture 3 hours. Theory, characteristics and operation of diodes, bipolar junction transistors and MOSFET transistors; analog and digital electronic circuits; design and analysis of analog electronic circuits such as filters, operational amplifiers, single and multistage amplifiers; modeling and simulation using spice/multisim software. Prerequisite: ES 220 and 221 and corequisite: ES 231 or consent of Instructor.

**ES 231 ELECTRONICS I LABORATORY (1)**

Laboratory, 3 hours. Laboratory work to accompany ES 230. Computer assisted design of electronic circuits involving devices such as diodes and transistors. Design, building and testing of electronic circuits such as filters, oscillator, amplifiers, etc. Corequisite: ES 230.

**ES 310 MICROPROCESSORS AND SYSTEM DESIGN (4)**

Lecture, 3 hours. Laboratory, 3 hours. Hardware architecture of a microprocessor and its programming and instruction design, memory hierarchy and I/O interfaces, comparison of various microprocessor architectures and capabilities, system design using microprocessors. Laboratory work. Prerequisites: ES 210 and ES 230; or consent of instructor.

**ES 314 ADVANCED PROGRAMMING, MODELING AND SIMULATION (4)**

Lecture, 4 hours. Pointers and dynamic allocation of storage; linked lists; an introduction to the object oriented programming (OOP) paradigm; classes and objects; encapsulation; member variables and member functions. Static arrays, dynamic arrays, stacks and queues, linked lists, trees, binary search trees, balanced trees (AVL, red-black, B-trees), heaps, hashing and graphs. System modeling techniques and applications such as generation of noise (random numbers) and correlated signal with different pdfs, measurement of statistical parameters like moments, queuing systems and system simulation. Prerequisite: CS 115: Programming I. Co-requisites: MATH 345: Probability Theory and ES 220: Electric Circuits, or consent of instructor.

**ES 330 ELECTRONICS II (3)**

Lecture, 2 hours. Laboratory, 3 hours. Analysis and design of high frequency amplifiers; high frequency models of transistors; operational amplifiers and applications; feedback amplifiers; oscillators, modulators, bandpass amplifiers, and demodulators for communications. Laboratory work. Prerequisite: ES 230 or consent of instructor.

**ES 400 LINEAR SYSTEMS THEORY (3)**

Lecture, 3 hours. Analysis of linear time-invariant systems, correlation, convolution, impulse response, complex variables, Fourier series and transform, sampling, filtering, modulation, stability and causality, feedback and control systems, Laplace and Z-transform, fast Fourier transforms. Prerequisite: MATH 241 or consent of Instructor. (Crosslisted with MATH 430 and CES 400)

**ES 430 ELECTROMAGNETIC THEORY AND APPLICATIONS (3)**

Lecture, 3 hours. Electrostatics, magnetostatics, electric currents, electromagnetic induction, electric and magnetic fields in matter, Maxwell's equations, retarded potentials radiation reaction, light emission, simple scattering and antenna theory, properties of waveguides, relativistic formulation of electrodynamics, Fourier decomposition of fields. Prerequisites: ES 220, MATH 241 and MATH 261.

**ES 432 PHYSICAL ELECTRONICS (3)**

Lecture, 3 hours. Semiconductor materials, crystal structure and growth; energy bands and charge carriers, conductivity and mobility; metal-semiconductor and p-n junctions; p-n junction diodes, bipolar junction transistors, field-effect transistors, CCD's, photonic devices and integrated circuits. Projects in photolithography; conductivity and contact resistance measurements; I-V and C-V characteristics of diodes; characterization of transistors may be assigned. Prerequisites: ES 230 or consent of Instructor. (Crosslisted with PHYS 475 and CES 432)

**ES 440 ANALOG AND DIGITAL COMMUNICATIONS I (3)**

Lecture, 2 hours. Laboratory, 3 hours. Mathematical modeling of signals, time and frequency domain concepts, spectral density, components of a communications system, analog signal transmission. AM, FM and PM modulation and demodulation techniques, noise and bandwidth, link analysis. Laboratory work. Prerequisites: ES 230, and ES 400; or consent of instructor.

**ES 441 ANALOG AND DIGITAL COMMUNICATIONS II (3)**

Lecture, 2 hours. Laboratory, 3 hours. Digital signals and their transmission, PCM, log-PCM, ADPCM and DM and other low bit rate coders. Digital data transmission, data encoding, clock recovery and BER, data modulation techniques, ASK, FSK, PSK and QAM. Link budgets for satellite, cellular, and cable systems, the effects of noise and bandwidth. Laboratory work. Prerequisite: ES 314 and ES 440 or consent of instructor.

**ES 443 INTRODUCTION OPTICAL FIBER COMMUNICATIONS (3)**

Lecture, 3 hours. Principles of light wave propagation, and propagation in an optical fiber, fiber characteristics, O/E and E/O conversions, coupling, WDM, modulation techniques for efficient information transmission, system design. Prerequisite: ES 430 and Corequisite: ES 441 or consent of the instructor.

**ES 445 PHOTONICS (3)**

Lecture, 3 hours. Gaussian beams; guided-wave optics; fiber optics; optical resonators; resonant cavities; laser oscillation and amplification; laser excitation; optical pumping; solid state, gas, dye, chemical, excimer and free electron lasers; semiconductor lasers; laser spectroscopy; fiber optic communication; photomultiplier and semiconductor radiation detectors including photoconductors, junction photodiodes; p-i-n diodes, avalanche photodiodes; detector noise. Prerequisite: PHYS 314 or consent of Instructor. (Crosslisted with PHYS 445 and CES 430)

**ES 465 INTRODUCTION TO NETWORKING AND NETWORK MANAGEMENT (3)**

Lecture, 2 hours. Laboratory, 3 hours. The ISO reference model, theoretical basis for data communications, data transmission theory and practice, telephone systems, protocols, networks, internetworks, with examples. Prerequisites: ES 314 and ES 440 or consent of Instructor. (Crosslisted with CES 440).

**ES 480 ARTIFICIAL INTELLIGENCE (3)**

A survey of techniques that simulate human intelligence. Topics may include: Pattern recognition, general problem solving, adversarial game-tree search, decision making, expert systems, neural networks, fuzzy logic, and genetic algorithms. Prerequisites: ES 314 or consent of Instructor.

**ES 485 SELECTED TOPICS IN ENGINEERING SCIENCE (1-3)**

A course on a single topic or set of related topics not ordinarily covered in the engineering science curriculum. The course may be repeated for credit as topics vary. Prerequisite: consent of instructor.

**ES 492 SENIOR DESIGN PROJECT PLANNING (2)**

Lecture, 1 hour. Laboratory, 3 hours. This course is the first phase of the capstone course. In the lecture part, the students will learn design techniques, how to plan a project, evaluate and perform tradeoffs, make project presentations and write project reports. In the laboratory parts, the students will choose a project, do planning, acquire parts, components and other resources needed and start the project work.

**ES 493 SENIOR DESIGN PROJECT (3)**

This is a capstone course. A major project designed to bring the knowledge gained from various courses together to analyze, design and implement an electronic and/or communications system in an efficient and economic manner. Prerequisite: Consent of the instructor.

**ES 497 ENGINEERING SCIENCE COLLOQUIUM (1)**

Lecture, 1 hour. Series of lectures on topics of interest in the relevant fields of engineering. A maximum of 1 unit can be applied to the ES major. The students may not miss more than two presentations. A brief summary of each presentation must be submitted after the presentation. The course grade is decided on evaluation of these reports. Cr/NC only.

**English (ENGL)**

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**ENGL 099T BASIC COMPOSITION-TUTORING (1)**

Individual and group tutoring in English composition. Tutoring units are assigned on basis of English Placement Test scores and are taken in conjunction with other writing courses. May be repeated. Cr/NC only. Not applicable toward graduation. Prerequisite: completion of the English Placement Test (EPT).

**ENGL 100A FIRST-YEAR COMPOSITION (3)**

Study and practice in the expression of facts and ideas; principles of investigation, of organization, and of effective writing style, with emphasis upon expository writing and upon developing analytical reading ability. Students must successfully complete both English 100A and English 100B; English 100B may not be taken alone. Completion of English 100A-100B with a C- or better satisfies GE Area A2 (Fundamentals of Communication). Grade only. 3 units each semester. Prerequisites: completion of the English Placement Test (EPT). English 100A is a prerequisite for English 100B.

**ENGL 100B FIRST-YEAR COMPOSITION (3)**

Study and practice in the expression of facts and ideas; principles of investigation, of organization, and of effective writing style, with emphasis upon expository writing and upon developing analytical reading ability. Students must successfully complete both English 100A and English 100B; English 100B may not be taken alone. Completion of English 100A-100B with a C- or better satisfies GE Area A2 (Fundamentals of Communication). Grade only. 3 units each semester. Prerequisites: completion of the English Placement Test (EPT). English 100A is a prerequisite for English 100B.

**ENGL 101 EXPOSITORY WRITING AND ANALYTICAL READING (4)**

Study and practice in the expression of facts and ideas; principles of investigation, of organization, and of effective writing style, with emphasis upon expository writing and upon developing analytical reading ability. Practice in the oral analysis and expression of ideas. Individual sections may be designated as Freshman Interest Group (FIG) courses and course material linked with companion FIG courses in other departments. Satisfies GE, category A2 (Fundamentals of Communication). Prerequisite: completion of the English Placement Test (EPT).

**ENGL 199 STUDENT INSTRUCTED COURSE (1-3)**

A course taught by graduate students under the supervision of a department faculty member. The course content will not be one covered by the regular course offerings.

**ENGL 200 CALIFORNIA CULTURAL ANALYSIS (3)**

Within the context of readings related to California history and culture and their role in shaping contemporary California life, students practice the techniques of expository writing, oral expression, and reading and thinking critically. Satisfies GE, category A1. Prerequisite: completion of GE categories A2 and A3.

**ENGL 201 WRITTEN AND ORAL DISCOURSE STUDIES (3)**

A course in analysis and production of written and oral discourse appropriate to a variety of disciplines and rhetorical situations, with emphasis on methods of critiquing, argumentation and cross-disciplinary discourse problems and challenges. Prerequisites: completion of GE areas A2 and A3. Satisfies GE, category A1.

**ENGL 203 INTRODUCTION LINGUISTIC STUDIES (3)**

The nature and structure of natural language; language and the mind; child language acquisition; role and function of language in the context of personal and group interactions and identities; language and other communication systems in culture and society; how language changes; using the skills and insights afforded by the scientific study of language. Satisfies GE, category D5 (Contemporary International Perspectives).

**ENGL 207 INTRODUCTION TO CREATIVE WRITING (4)**

An introduction to a variety of forms of creative writing, poetry and prose poems, the personal essay, vignettes, short stories, drama and experimental fiction. Students will explore each form with in-class exercises and discussion.

**ENGL 214 LITERATURE OF THE WORLD (4)**

An introduction to the study of literature. Literature drawn from a worldwide range of cultures and historical periods will provide the basis for oral discussion and written analysis. The course promotes global awareness or cross-cultural perspectives while developing basic analytical skills necessary for appreciating literary texts in diverse contexts and traditions. Emphasis will be placed on written analysis of literary form and meaning. Satisfies GE, category C2 (World Literature).

**ENGL 215 INTRODUCTION TO CALIFORNIA LITERATURE (3)**

A survey of California literature. Works will be drawn from a range of California ethnic and cultural traditions. Emphasis will be placed on written analysis of literary form and meaning. Satisfies GE, category C2 (World Literature). Prerequisite: ENGL 101.

**ENGL 237 SURVEY: EARLY AMERICAN LITERATURE (4)**

Survey of American Literature from the seventeenth century through the middle decades of the nineteenth century, concluding with a study of Whitman and Dickinson. In addition to major authors, major themes of the periods will be explored, including a story of Puritanism, transcendentalism, and American romanticism.

**ENGL 238 SURVEY: LATER AMERICAN LITERATURE (4)**

Begins with Whitman and covers most major writers of the late 19th century and of the 20th century. Dickinson, Twain, H. James, Faulkner, Eliot, Kate Chopin, Baldwin. Realism, naturalism and modernism.

**ENGL 239 SURVEY: EARLY BRITISH LITERATURE (4)**

Survey of British Literature from the Anglo-Saxon period to the end of the eighteenth century. Focus is on major authors in their cultural context.

**ENGL 240 SURVEY: LATER BRITISH LITERATURE (4)**

Survey of British literature from the late eighteenth century to the present. Focus is on major authors in their cultural context.

**ENGL 275 COMPOSITION WORKSHOP (1-4)**

Intensive study and preparation in-class and timed writing situations such as the WEPT and/or practical writing situations (i.e. Community Service Writing). Topics of special study may include rhetorical strategies for argumentation and expository writing in various situations, grammatical review and techniques for revising, editing, and proofreading. May be offered as a stand-alone class, or in conjunction with other courses. Enrollment in linked sections will be limited to students in linked courses.

**ENGL 280 INTRODUCTION TO CALIFORNIA CULTURAL STUDIES (3)**

Introduction to California culture studies and its multiethnic, interdisciplinary and multi-disciplinary perspectives, tasks, and methods. Includes the study of California regionalisms and a range of topics from geology, philosophy, and art. Fieldwork and field trips to sites of historical and cultural interest required. Fulfills General Education requirement in C4.

**ENGL 292 LIBRARY AND INFORMATION RESEARCH: HUMANITIES (4)**

An introduction to the use of Humanities resources in the Salazar Library. Students learn how to satisfy information needs, how to construct search strategies, how to find and retrieve information, and how to critically evaluate information sources. Includes lectures, demonstrations, and online research practice. Electronic and print sources are covered.

**ENGL 295 COMMUNITY INVOLVEMENT PROG (1-4)**

CIP involves students in basic community problems, performing such tasks as tutoring and reading for the blind. Students receive 1 to 4 units, depending on the specific tasks performed. A total of 6 units of CIP credit may be applied toward a degree.

**ENGL 301 LITERARY ANALYSIS: SEMINAR (4)**

The art of critical writing on each genre, and the application of traditional and modern criticism to the study of literature. All English majors must take this course in their junior year.

**ENGL 302 SPECIAL TOPICS AND THEMES IN CALIFORNIA CULTURAL STUDIES (4)**

Courses include: California and the Environmental Imagination; Representing LA; Mural Art and California Politics; California Lives, San Francisco Culture; California in the Fifties; The Jack London Circle; California Immigration Experience; California and the West; Race, Ethnicity and Culture in California.

**ENGL 303 SPECIAL STUDIES IN COMPOSITION (2-4)**

Expository writing, with a specific emphasis that varies from semester to semester; reports, grants, proposals, technical writing and general business writing. Please see Schedule of Classes for current title.

**ENGL 307 INTRODUCTION TO FICTION WRITING (4)**

A writing workshop which focuses on crafting the short story. May be repeated for credit. Prerequisite: consent of instructor.

**ENGL 313 CLASSICAL LITERATURE AND MYTH (4)**

Study of major works of the ancient world in cultural context. Consult Schedule of Classes for current listing. May be repeated for credit under different subtitles.

**ENGL 314 MODERN WORLD LIT IN ENGLISH (4)**

Explorations and analysis of modern world literature in translation as well as works written originally in English. The course may offer a survey of world literature or provide a more in-depth study of one or more non-Western traditions in a global context (check course schedule for particular topics). Satisfies GE, category C2 (World Literature).

**ENGL 315 CALIFORNIA ETHNIC LITERATURE (4)**

An introduction to representative California writers from 1900 to the present. Includes an examination of the theoretical, regional, multicultural, and multiethnic foundations of California literature. This course focuses upon both inter-ethnic and intra-ethnic literary relationships. Satisfies GE, category C2 (World Literature). Satisfies Ethnic studies requirement. Prerequisite: completion of ENGL 101.

**ENGL 315L CURRICULUM LABORATORY (1)**

Workshop in curriculum development for Teachers Preparation Candidates only. Concurrent enrollment in ENGL 315 is required.

**ENGL 318 INTRODUCTION TO POETRY WRITING (4)**

This course is designed for the beginning student in poetry writing. Through creative exercises and the reading of contemporary poetry, we'll focus on the basic elements of writing poetry: individual voice, image, line, language, form, sound, and process. While there will be reading and much discussion of the reading, the central focus will remain on student work. May be repeated for credit.

**ENGL 339 INTRODUCTION TO SHAKESPEARE (3-4)**

An introductory course in Shakespeare that centers around explication, discussion and criticism of the major plays in the canon. Available to majors and non-majors. Fulfills Shakespeare requirement for English majors.

**ENGL 341 EXPLORATIONS IN LANGUAGE (4)**

This course introduces a series of linguistic topics that meet the content requirements of the English waiver program for future teachers. Topics include history of the English language, semantics, language and/or literacy acquisition, or classroom discourse analysis. See Schedule of Classes for current offering.

**ENGL 342 CHILDREN'S LITERATURE (4)**

A study of children's books, with emphasis on both traditional and modern materials. Consideration of children's reading interests and criteria for selection of books.

**ENGL 343 YOUTH AND LITERATURE (4)**

A survey course focusing on the genre of young adult fiction and non-fiction, with emphasis on its use in the teaching of secondary school English.

**ENGL 345 WOMEN WRITERS (4)**

A survey that, with a varying focus from semester to semester, considers women writers in a number of different periods, countries and genres. This course emphasizes the comparative analysis of gender and literary practice, including, for example, intersections with ethnicity, sexuality, and social class. Suitable for non-majors. May be repeated for credit. Satisfies GE, category C2 (World Literature).

**ENGL 349 EXPLORATIONS IN LITERATURE (3-4)**

A course in literary explorations that will include subjects not normally offered in the regular curriculum. Please see Schedule of Classes for current titles. May be repeated for credit.

**ENGL 352 PERSONAL ESSAY (4)**

Intended for the general student who wishes to practice expository writing. Provides students with an opportunity to explore personal experience through writing and to examine elements of prose style in an informal, workshop atmosphere. May be repeated for credit. Prerequisites: upper-division standing and completion of the WEPT requirement, or consent of instructor.

**ENGL 367 INTRODUCTION TO SHORT STORY (4)**

An introductory course on the study of the short story as a genre. This course will survey the development of the short story over time. Specific offerings of this course may focus on particular traditions within the history of the short story.

**ENGL 368 SMALL PRESS EDITING: ZAUM (4)**

This course offers experience in editing and publishing a student literary journal as well as working on a national literary journal. Activities include editing, layout and graphics, marketing, and distribution. May be repeated for credit.

**ENGL 369 INTRODUCTION TO POETRY (4)**

An introductory course on the study of poetry as a genre. This course will survey the development of poetry over time. Specific offerings of this course may focus on particular traditions within the history of poetry.

**ENGL 371 INTRODUCTION TO THE NOVEL (4)**

An introductory course on the study of the novel as a genre. This course will survey the development of the novel over time. Specific offerings of this course may focus on particular traditions within the history of the novel.

**ENGL 373 INTRODUCTION TO DRAMA (4)**

An introductory course on the study of drama as a genre. This course will survey the development of drama over time. Specific offerings of this course may focus on particular traditions within the history of drama.

**ENGL 375 ADVANCED COMPOSITION (4)**

An advanced writing course, emphasizing organization of essays, style, usage, rhetorical techniques, and rewriting and editing. Course includes discussion of effective prose, review of students' work and individual consultations. Prerequisite: ENGL 101. Completion of ENGL 375 with a grade of C or better satisfies the University WEPT requirement. ENGL 375 does not count towards Creative Writing concentration units.

**ENGL 377 TOPICS IN FILM STUDIES (1-4)**

This course investigates major topics in film studies. Subjects vary and may include: the intersection of text and visuality; studies of authors/directors; script analysis; genres; historical movements and themes; critical and theoretical approaches. The course may be repeated for credit up to a maximum of 6 units. This class may be offered as a stand-alone or in conjunction with other courses. Enrollment in linked sections will be limited to students in linked courses.

**ENGL 379 STRUCTURE OF ENGLISH: PEDAGOGICAL GRAMMAR (4)**

This course is designed to develop an understanding of basic principles of linguistic analysis as well as the forms and functions of English grammar and sentence structure. Applications to classroom practices are also explored.

**ENGL 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

CIP involves students in basic community problems, performing such tasks as tutoring and reading for the blind. Students receive 1 to 4 units, depending on the specific tasks performed. May be repeated for a total of 6 units toward a degree.

**ENGL 399 STUDENT-INSTRUCTED COURSE (1-4)**

A course taught by graduate students under the supervision of a department faculty member. The course content will not be one covered by the regular course offerings.

**ENGL 400 ENGLISH LECTURE SERIES (1-4)**

A public lecture series on topics of general interest. Two units require regular attendance and a final paper. Students who take three units additionally meet once a week in discussion groups and do further reading on selected topics.

**ENGL 401 INTRODUCTION-MODERN CRITICAL THEORY (4)**

An introduction to a range of critical theories and practices related to modern literary criticism. The course aims to introduce students to the contemporary forms of critical theory and their antecedents, and to show their effects upon reading practices.

**ENGL 407 ADVANCED FICTION WRITING (1-4)**

An advanced-level fiction writing workshop. May be repeated once for credit.

**ENGL 409 MASTER CLASS-FICTION WRITING (4)**

Fiction writing workshop with a published writer. Enrollment limited to 15. Prerequisite: previous enrollment or consent of instructor.

**ENGL 418 ADVANCED POETRY WRITING (4)**

This course is designed for the more advanced student in poetry writing. It is recommended that the student have prior instruction or approval by the instructor. While the focus is on student writing, students can also expect to obtain a strong sense of American poetics over the last 50 years. May be repeated for credit.

**ENGL 430 CREATIVE WRITING: SELECT GENRES (1-4)**

A workshop in the writing of a selected genre such as: memoir, autobiography, screenplay, stage play, novel, etc. May be repeated for credit.

**ENGL 435 DIRECTED WRITING (2-8)**

Individualized instruction in poetry, fiction, or creative non-fiction writing, one-on-one with a published writer. Prerequisite: consent of the instructor. No more than eight units of ENGL 435 may be counted toward the English major.

**ENGL 436 STUDIES IN POSTCOLONIAL LITERATURE (4)**

Study of contemporary Anglophone and translated literary works with emphasis on transnational contexts and encounters between the First and Third Worlds.

**ENGL 439 STUDIES IN SHAKESPEARE (4)**

An advanced course in Shakespeare that focuses on the plays in the sub-genres through the context of history, sources, criticism and theatrical reception. Fulfills Shakespeare requirement for English majors.

**ENGL 447 STUDIES IN COMPARATIVE LITERATURE (3-4)**

The study of literary themes and movements. Includes the various literatures that relate to a particular topic, such as decadence and symbolism, and modern European literature. Please see Schedule of Classes for current offering. May be repeated for credit. Normally offered through Special Sessions in Extended Education.

**ENGL 448 PERIODS IN BRITISH LITERATURE (4)**

Study of British authors in their historical periods, including Middle English, Renaissance, seventeenth century, Restoration and eighteenth century, Romantic, Victorian, twentieth century. Please see Schedule of Classes for current offering. May be repeated for credit under different subtitles.

**ENGL 450 PERIODS IN AMERICAN LITERATURE (4)**

Selections from the seventeenth through the twentieth century, inclusive of contemporary American literature, will comprise the Period offerings. Please see Schedule of Classes for current offering. May be repeated for credit.

**ENGL 451 FEMINIST PERSPECTIVES IN LITERATURE (4)**

Feminist Perspectives is an advanced course in reading, writing, and research that will engage feminist perspectives in literature. This course is interdisciplinary in approach and is conducted in a seminar format.

**ENGL 460 TEACHING ASSISTANT IN ENGLISH (1-4)**

Provides students experience in assisting an instructor in an English course by doing course-related research and tutoring. Prerequisite: consent of the instructor. No more than eight units of ENGL 460 may be counted toward the English major.

**ENGL 462 RESEARCH ASSISTANT IN ENGLISH (1-4)**

Provides selected students the opportunity to participate in the construction and execution of a faculty research project. Prerequisite: faculty invitation.

**ENGL 470 STUDIES IN POETRY (4)**

Themes, modes and techniques of poetry: modern British, 20th century American, etc. Please see Schedule of Classes for current offering. May be repeated for credit.

**ENGL 472 STUDIES IN THE NOVEL (4)**

In-depth studies of a particular kind of novel: English, 20th century American, political (offered jointly with the department of political science), war novel, etc. Please see Schedule of Classes for current offering. May be repeated for credit.

**ENGL 474 STUDIES IN DRAMA (4)**

Study of representative plays of a particular period: Medieval, Renaissance, Neo-classic, 19th century, Modern. Please see Schedule of Classes for current offering. May be repeated for credit.

**ENGL 475 MASTER CLASS IN NONFICTION (4)**

An advanced workshop in creative non-fiction, focused on the writing of publishable essays and the art of the book proposal. Prerequisite: ENGL 375, 352, 430 (Creative Non-Fiction) or consent of instructor.

**ENGL 480 STUDIES IN CALIFORNIA LITERATURE (4)**

Study of a topic unique to California literature (e.g. Beats, LA/SF detective fiction, California immigrant and autobiographical literature). Emphasis on the historical, cultural, and regional character of the selected writings. Please see Schedule of Classes for the topic studied. Fulfills the core requirement of the California Cultural Studies special major. May be repeated for credit.

**ENGL 481 STUDIES IN BRITISH LITERATURE (4)**

Studies of topics in British as well as related literatures including colonial, post-colonial, and Anglophone literatures. Please see Schedule of Classes for current offering. May be repeated for credit under different subtitles.

**ENGL 482 STUDIES IN AMERICAN LITERATURE (4)**

Close study of topics unique to American literature (e.g., transcendentalism, Western American literature). Please see Schedule of Classes for current offering. May be repeated for credit.

**ENGL 483 INDIVIDUAL AUTHORS: AMERICAN (4)**

One or more authors will be selected for study in depth. Please see Schedule of Classes for the author(s) to be studied. May be repeated for credit.

**ENGL 484 INDIVIDUAL AUTHORS: ENGLISH (4)**

Each semester one or more authors will be selected for study in depth. Please see Schedule of Classes for the authors to be studied. May be repeated for credit.

**ENGL 485 CALIFORNIA AUTHORS (4)**

One or more California authors will be selected for in depth study. Please see Schedule of Classes for the authors studied. May be repeated for credit.

**ENGL 487 STUDIES IN RHETORIC (4)**

Specialized study of topics in rhetoric (including the history of rhetoric from classical to modern and post-modern rhetoricians), specific problems in rhetoric, and nontraditional rhetorical strategies. Content varies from semester to semester.

**ENGL 489 TOPICS IN LINGUISTICS (4)**

Individual and small-group study in specialized topics in the field of linguistics or literacy studies. Can be used to meet the Single Subject elective requirement. May be repeated for credit. Offered every two years.

**ENGL 491 SEMINAR IN TEACHING COMPOSITION (4)**

This course will focus on composition theory, course design, instructional methods and assessment in the teaching of writing in multicultural settings. Students will also write extensively to improve their own writing. A school-based practicum is a required component of this course.

**ENGL 492 READING AND RESPONDING TO LITERATURE (4)**

This course will focus on the links between literacy studies and the teaching of literature, with an emphasis on understanding current approaches to supporting adolescent reading in multicultural classrooms. The course explores books, both modern and traditional, that are of particular interest to adolescent and young adult readers. Through extensive reading and writing, students will build an understanding of how to develop effective English Language Arts curriculum at the secondary level.

**ENGL 494 ADVANCED SURVEY (4)**

This course offers academic support for the review of English and American literature that Master's candidates undertake in preparation for the graduate qualifying exam. Offered Cr/NC only.

**ENGL 495 SPECIAL STUDIES (1-4)**

To register for ENGL 495, not only must the student have the consent of the instructor, but the material and course of study should satisfy student needs not covered by regularly offered courses. In addition, the amount and level of work proposed should be at the appropriate academic level. Prerequisite: consent of instructor and department chair.

**ENGL 496 ENGLISH EDUCATION CAPSTONE SEMINAR (4)**

This course engages senior level English education majors in discussion and activities which review, synthesize and assess the breadth and depth of their subject matter competence.

**ENGL 499 INTERNSHIP (1-4)**

For upper-division majors who wish to work off campus in job-learning situations that relate to their major emphasis. Excludes student teaching. Written contract and faculty sponsorship required.

**ENGL 500 RESEARCH AND CRITICAL WRITING (4)**

Required for M.A. candidates in English. Advanced use of reference materials and library resources, and the techniques of critical and scholarly writing. The course should be taken during the first semester of classified status. May be repeated for up to eight units. Prerequisite: graduate status or consent of instructor.

**ENGL 501 LITERARY THEORY AND CRITICISM (4)**

Advanced study of the major texts in critical theory from Plato and Aristotle to the theoretical pluralism of the present. This course should be taken in the second semester of classified status. Prerequisite: graduate status or consent of instructor.

**ENGL 530 GRADUATE WORKSHOP IN CREATIVE WRITING (4)**

An advanced workshop in creative writing with in-depth discussions of individual work. Please see Schedule of Classes for current offering. May be repeated up to 6 units. Prerequisite: graduate status or consent of instructor.

**ENGL 535 DIRECTED WRITING (2-6)**

Individualized instruction in the development of an extended creative writing project. Prerequisite: consent of instructor. The MA completion option in creative writing is fulfilled through taking a total of 6 units of 535 to successfully produce the final creative project. This project must be approved by the creative project chair and second reader. Prerequisites: ENGL 500, classified status and an authorized Advancement to Candidacy (GS01) form. Students in other MA emphases may count no more than 4 units of 535 toward the degree; creative writing students may count no more than 4 units in addition to the 6 creative project units of 535 toward the degree. Prerequisite: consent of instructor.

**ENGL 536 WORLD/POST-COLONIAL LITERATURE (4)**

Studies related to different aspects of world and/or postcolonial literature. Emphasis on historical and social contexts and contemporary theoretical models. Course content varies from semester to semester. Course may be taken more than once for credit under different subtitles. Prerequisite: graduate status or consent of instructor.

**ENGL 539 SEMINAR: SHAKESPEARE (4)**

Critical reading and in-depth analysis of representative modes such as tragedy and comedy in Shakespeare. Prerequisites: graduate status or consent of instructor.

**ENGL 578 PROJECT CONTINUATION (1-4)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. Once students have begun final project units, they must remain continuously enrolled; these units allow them to do this and provide services such as access to the library during this time. These units may also be taken through Extension. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. May be repeated for credit. Cr/NC only.

**ENGL 581 SEMINAR: BRITISH LITERATURE (4)**

A topic of English literature will be selected for study in depth. In addition to the literature of Britain, the topic may cover related colonial and postcolonial literatures. Please see Schedule of Classes for current offering. Course may be repeated for credit under different subtitles. Prerequisite: consent of instructor.

**ENGL 582 SEMINAR: AMERICAN LITERATURE (4)**

A topic of American Literature will be selected for study in depth. In addition to the literature of America, the topic may cover colonial, postcolonial and/or Antiphone literatures of the Americas. Please see Schedule of Classes for current offering. Course may be repeated for credit under different subtitles. Prerequisite: consent of instructor.

**ENGL 583 INDIVIDUAL AUTHORS: AMERICAN (4)**

In-depth study of an individual author and related criticism. Please see Schedule of Classes for current offering. May be repeated for credit under different subtitles. Prerequisites: graduate status or consent of instructor.

**ENGL 584 INDIVIDUAL AUTHORS: BRITISH (4)**

In-depth study of an individual author and related criticism. Please see Schedule of Classes for current offering. May be repeated for credit under different subtitles. Prerequisite: graduate status or consent of instructor.

**ENGL 587 SEMINAR: RHETORICAL THEORY (4)**

Study of topics in recent rhetorical theory specifically as it applies to the teaching of writing at the college level. Course content varies from semester to semester. Course may be repeated for credit under different subtitles. Prerequisite: consent of instructor.

**ENGL 588 SEMINAR: STUDY OF LANGUAGE (4)**

Study of current theories in linguistics and literacy studies and their applications to English, with emphasis on original research and analysis in the study of oral and/or written language. Course may be repeated for credit under different subtitles.

Prerequisite: consent of instructor.

**ENGL 595 SPECIAL STUDIES (1-4)**

Individualized study on a student-designed topic. The material and course of study should only cover topics not available in currently offered courses. Students must complete the standard SSU form and secure the required written approvals. May be repeated once for credit toward the M.A. Prerequisites: consent of instructor and department chair.

**ENGL 597 DIRECTED READING (3)**

Focused reading on a relatively narrow topic validated by a written and an oral examination. To be taken by students choosing the directed reading option to complete the MA. Topic to be approved by the directed reading chair and second reader. Prerequisites: ENGL 500, classified status and an authorized Advancement to Candidacy (GS01) form.

**ENGL 599 THESIS AND ACCOMPANYING DIRECTED READING (3-6)**

To be taken by students writing a traditional thesis, an extended research topic approved and guided by the thesis chair and second reader. Prerequisites: ENGL 500, classified status and an authorized Advancement to Candidacy (GS01) form.

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**Environmental Studies and Planning (ENSP)**

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**ENSP 200 GLOBAL ENVIRONMENTAL ISSUES (3)**

Lecture-discussion, 3 hours. An introduction to environmental studies and planning, including: humans in relation to the global ecosystem; an overview of problems of energy use, pollution, resource depletion, population growth, food supply, urbanization, climate change and biodiversity and the search for solutions and future prospects. Satisfies GE, category D5 (Contemporary International Perspectives).

**ENSP 201 ENVIRONMENTAL FORUM (1)**

Regular weekly departmental lecture series. Outside professional speakers and ENSP alumni and faculty report on environmental topics and opportunities for environmental careers. Cr/NC only.

**ENSP 202 QUANTITATIVE METHODS: ENVIRONMENTAL STUDIES (3)**

Lectures and workshop designed to enhance students' confidence in analytical problem solving. Essential techniques emphasizing environmental applications: translating knowledge into abstract and mathematical models, numerical estimates, basic geometry and trigonometry, dimensional analysis, unit conversions, interpreting statistical data, graphic display of information. Conceptual introduction to calculus, differential equations, and complex numbers. Prerequisite: completion or concurrent enrollment in GE category B4 (Math Concepts). Cr/NC only.

**ENSP 301 THE HUMAN ENVIRONMENT (3-4)**

This course is designed to explore environmental issues and their impact on/by humankind. The class will demand that each student contribute ideas from his/her own experience each class session, as well as doing an in-depth group research project on an issue that involves human interaction with the environment. Issues could include: effects of human technology and social institutions upon the natural environment as well as beliefs, values, attitudes in relation to human and non-human environment. Prerequisite: ENSP 200 or equivalent, junior/senior standing.

**ENSP 302 APPLIED ECOLOGY (3-4)**

This course explores major concepts of ecology and examines current environmental issues in light of these concepts. Topics include: relationship between organisms and the physical environment, community-level ecological processes, the structure and function of ecosystems and their distribution on the planet, evolutionary processes, and population ecology. Environmental issues include loss of biodiversity, global climate change, invasive species and others. Development of speaking and writing skills is a significant element of the course. Field trip required. Prerequisite: completion of BIOL 110 or BIOL 115 or consent of instructor.

**ENSP 303 APPLIED PHYSICAL SCIENCE (3-4)**

A review of the physical field sciences for environmentalists. Develops an understanding of the problems and challenges in environmental control of air, water, soil, natural hazards, and nonrenewable resources by applying scientific principles to practical environmental problems. Prerequisite: completion of lower-division GE categories B1 (Physical Sciences) and ENSP 200.

**ENSP 305L COMPUTER-AIDED COMMUNICATIONS (3)**

Designed to introduce ENSP students to theory and techniques of computer-aided environmental communication. The fundamentals of visual communication will be addressed, demonstrated, and applied through a variety of instructional technologies including Web tools, presentation graphics, digital photography, and desktop publishing. Prerequisites: ENSP majors and minors, junior/senior standing.

### **ENSP 306 ENVIRONMENTAL ETHICS (3)**

An examination of philosophical issues; concepts of extending rights to nonhuman entities of nature and the question of humans' place in nature; logical and conceptual foundations for an environmental ethic. Prerequisite: completion of GE category A (Communication and Critical Thinking).

### **ENSP 307 ENVIRONMENTAL HISTORY (4)**

History of the American environment and the ways in which different cultural groups have perceived, used, managed, and conserved it from colonial times to the present. Changes in attitudes and behavior toward nature and the conservation/environmental movements are also examined. Prerequisite: Completion of GE category A (Communication and Critical Thinking).

### **ENSP 308 ENVIRONMENTAL LITERATURE (3)**

A survey of great American environmental books, including H. D. Thoreau's *Walden*, John Muir's *Mountains of California*, and works by other environmental authors. The course considers the natural, political, cultural, and historical environment of the writers.

### **ENSP 309 SOIL SCIENCE (3-4)**

An introduction to soil science emphasizing applications to agronomy, archaeology, botany, ecology, engineering, geography, geology, land use planning, hazardous materials management, and water quality. Technical exercises emphasize low-cost scientific analytical equipment. Prerequisite: completion of GE, category B (Natural Science and Mathematics).

### **ENSP 310 INTRODUCTION TO PLANNING (3)**

An overview of land use planning and associated concerns, such as environmental protection, transportation, open space preservation, housing, economic development, urban design, public finance. Consideration of the evolving forms and functions of cities, towns, and rural areas and society's attitudes toward development, environmental concerns, the appropriate role of government in regulating land use. Course addresses general plans, zoning, growth management, environmental impact assessment and the local political process relating to planning. Current trends in planning and sustainable community development.

### **ENSP 311 PLANNING THEORY AND METHODOLOGY (4)**

Exploration of evolving planning thought and processes as a basis for understanding planning practice. Comprehensive planning, incremental, and communicative action models. Planning and local politics. The values and ethics of the professional planner. Mediating environmental and land use disputes. Basic analytical, methodological, and communication skills utilized in urban, environmental, and business planning. Prerequisite: ENSP 310 is required or can be taken concurrently, junior and senior standing ENSP majors and minors only.

### **ENSP 314 URBAN DESIGN I: THE URBAN FORM (3)**

An exploration of the physical and visual form of urban communities. The appearance and aesthetic qualities of public open spaces, streets, buildings, neighborhoods, city gateways, signs, and other elements of the urban scene. Meaning of "sense of place." The effects of public policy and regulations on urban form. The scale, pattern, and image of urban form elements. Planning for new communities, historic preservation, urban plazas, and public art. Prerequisite: ENSP 310 is recommended.

### **ENSP 315 ENVIRONMENTAL IMPACT REPORTING (3)**

The practice and theory of environmental impact assessment and analysis. The process of preparing environmental impact reports (EIRs) and statements (EISs) as mandated by state and federal statutes and regulations. Reviewing and commenting on environmental documents. Relationship between EIRs and comprehensive planning activities. Litigation of EIRs and environmental mediation. Prerequisite: ENSP majors and minors, junior/senior standing, ENSP 310 is recommended.

### **ENSP 322 CONSERVATION BIOLOGY (3-4)**

Interdisciplinary investigation into biological, management, economic, and ethical issues associated with the current extinction of species. Course will cover principles and applications of ecology, population biology and genetics, biogeography, and social sciences for protection and management of biodiversity in the face of current widespread alteration of the environment. At least one field trip required. Prerequisites: ENSP 302, BIOL 122, junior or senior standing only, or permission of instructor.

### **ENSP 324A AGROECOLOGY (2)**

The Agroecology course focuses on the study and practice of sustainable agriculture. Fall topics include soil testing, composting, seed beds for winter crops, planting green manure crops, and pest control. Environmental concerns concentrate on genetic diversity, seed saving, and decreased dependence on chemical pesticides and herbicides. Class time is divided between classroom lectures/discussions and field research/experimentation.

### **ENSP 324B AGROECOLOGY (1-2)**

The Agroecology course focuses on the study and practice of sustainable agriculture. Spring topics include composting green manure, preparation of greenhouse seed beds, pest and weed control, and spring planting in open beds. Environmental concerns concentrate on large-scale irrigation, greenhouse management, fruit, nut, and forest production, and health effects of pesticides and herbicides. Class time is divided between classroom lectures/discussions and field research/experimentation.

### **ENSP 326A NATIVE PLANT PROPAGATION (2)**

Field course in applied aspects of propagation of plants native to the local area. Topics include native plants and plant communities; techniques for collecting, growing, and planting native plants; and ecologically sound guidelines for collection and reintroduction of native plants. Experimental approaches to improve propagation success are emphasized. Course provides native stock for restoration of local riparian habitats.

### **ENSP 326B NATIVE PLANT PROPAGATION (1-2)**

Field course in applied aspects of propagation of plants native to the local area. Topics include native plants and plant communities; techniques for collecting, growing, and planting native plants; and ecologically sound guidelines for collection and reintroduction of native plants. Experimental approaches to improve propagation success are emphasized. Course provides native stock for restoration of local riparian habitats.

### **ENSP 330 ENERGY, TECHNOLOGY AND SOCIETY (4)**

A lecture/discussion course designed to assist students in understanding energy as a fundamental measure of organization, structure, and transformation in society. Principal topics include: energy history; thermodynamics; energy resources and conversion technologies; global issues and trends; environmental impacts; energy economics, institutions, and politics. Elementary quantitative analysis. Prerequisite: ENSP 202 or MATH 107 or equivalent. ENSP junior standing or consent of instructor.

**ENSP 337 THERMAL ENERGY MANAGEMENT (3-4)**

An introduction to energy management in residential and commercial buildings, focusing on space heating and cooling, and hot water. Fundamentals of heat transfer, thermal properties of building materials, building load calculations, and energy economics. Prerequisite: ENSP majors, MATH 107, MATH 161, or ENSP 202; PHYS 114 or PHYS 210A or equivalent.

**ENSP 338 ELECTRICAL ENERGY MANAGEMENT (3-4)**

An overview of energy management approaches in residential and commercial settings that involve electrical devices, including lighting, motors, and HVAC. Fundamentals of electricity, electric power delivery, and the workings of common appliances; energy economics. Strong algebra background and PHYS 210 recommended. Prerequisite: ENSP majors, completion of MATH 107, MATH 161, ENSP 202; PHYS 114 and PHYS 210A or equivalent.

**ENSP 345 PORTFOLIO DEVELOPMENT AND REVIEW (3)**

Course designed to introduce students to critical issues in elementary education as well as to conduct an assessment of students entering ENSP in the education study plan. Students develop portfolios and present to classmates. Field trips. Cr/NC only. Course fee. Prerequisite: ENSP majors and minors.

**ENSP 350 HAZARDOUS MATERIALS MANAGEMENT (3)**

Through lecture, discussion, and guest experts, the scope of the newly evolving field of hazardous materials management is discussed. Includes such topics as the public's right to know; environmental auditing; emergency response planning; transfer, storage, and treatment facilities; update of local and regional public agencies' activities; and career development for students. Prerequisite: ENSP 200 or equivalent.

**ENSP 360 ASSISTANCE PROJECTS (1-4)**

Involvement in on-campus environmental and planning activities. Requires preapproval of activities by faculty supervisor.

**ENSP 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

Involvement in human, social, biological, or physical problems of the off-campus community. A total of 6 units may be applied toward the degree.

**ENSP 399 STUDENT INSTRUCTED COURSE (1-3)**

Topic will differ each semester.

**ENSP 400 SELECTED TOPICS (1-4)**

Intensive study of selected topics related to environmental studies and planning. Topics vary from semester to semester. May be repeated for credit with consent of instructor.

**ENSP 401 U.S. ENVIRONMENTAL POLICY (4)**

This course provides a basic introduction to both American institutions and major environmental policy issues. Examines choices shaping the structure of governance and tools of environmental policy, and asks questions about decisionmaking, responsibility, and accountability. Prerequisites: juniors, seniors and graduate students.

**ENSP 403 COMPUTER MODELING (3)**

A practical course in simulating complex systems using digital computers and dynamic programming. The simulation language STELLA is taught. The principles examined in the course can be applied to any simulation language. Applications in biological conservation, land use planning, hazardous materials management, energy, water quality, environmental impact reporting are emphasized. Prerequisites: juniors, seniors and graduate students, and completion of GE category B4 (Mathematical Concepts).

**ENSP 404 ENVIRONMENTAL LAW (3)**

Review of environmental law and regulation in the United States generally and California in particular. Overview of federal and California legal systems with emphasis on their role in environmental protection. Evolution of environmental law in the United States, including property rights and environmental justice.

**ENSP 405 ENVIRONMENTAL RESEARCH AND WRITING (2-3)**

Whether you are conducting research for a class assignment, writing a paper in graduate school, or solving real environmental problems as a working practitioner, you will need some strong basics in research methods. This class covers a variety of methods in the social sciences applicable to work in a wide range of environmental fields, including library searches, interviews, historical research, finding and interpreting planning documents, and effective writing. Prerequisites: juniors, seniors and graduate students. Prerequisites: juniors, seniors and graduate students.

**ENSP 411A PLANNING WORKSHOP (4)**

The first semester of an intensive, year-long project that provides practical experience in preparation of a general (comprehensive) plan for an actual community or geographic area. The fall semester focuses on background studies and field surveys of land use, public opinion, transportation, economic base, and environmental conditions. Class fee required at time of registration. Prerequisites: ENSP 310 and 311, ENSP seniors with subplan: Planning required. Course fee.

**ENSP 411B PLANNING WORKSHOP (4)**

Continuation of ENSP 411A. Spring semester focuses on preparation of the plan, including implementation programs, following state guidelines. Public presentations of class project. Class fee required at time of registration. Prerequisites: ENSP 411A and consent of instructor.

**ENSP 414 URBAN DESIGN II: PLACEMAKING (3)**

Course focus is on the process of designing urban places where public life and a sense of community can thrive. Many critics of American cities have lamented the fact that these urban areas have lost their uniqueness; the urban landscape has come to be visually characterized by a dispiriting "sameness". Considered most offensive are standardized development of chain and "big box" stores with their corporate "logo" signs, and "cookie cutter" residential subdivisions. The course explores efforts of communities to retain their uniqueness and enhance civic pride, including the creation of vibrant public spaces, lively pedestrian environments, and comfortable and safe streets and neighborhoods. The meaning, purposes, and techniques of "contextual design" are explored, especially those designed to protect local historical heritage and regional distinctiveness. Prerequisites: ENSP 310 recommended.

**ENSP 415 LAND USE LAW (4)**

Overview of the law governing land use in California. Fundamentals of the legal system and legal analysis. Substantive law regarding planning and zoning, subdivision, development conditions, growth management, land use initiatives, vested rights, and design review. Constitutional protection of property rights. Prerequisite: juniors and seniors only; ENSP 310 recommended.

**ENSP 416 ENVIRONMENTAL PLANNING (3-4)**

Review of land use planning and regulation as it relates to the protection of various natural resources and environmental systems. Course subject matter varies and may include wetlands, open space, biodiversity, endangered species, coastal resources, agricultural land, forests, land subject to flooding, multi-species habitat planning, and air quality. Regulatory tools used to ensure resource and environmental protection. Prerequisite: ENSP 310 and/or ENSP 401 recommended, juniors, seniors and graduate students.

**ENSP 418 PLANNING FOR SUSTAINABLE COMMUNITIES (3)**

Sustainability as a concept in environmental and land use planning. Definitions and models of sustainability. Evaluation of sustainable development on global, national, regional, and local levels. Practical experience with city and county planning for sustainability. Prerequisite: ENSP 310 recommended, juniors, seniors, and graduate students.

**ENSP 419 TRANSPORTATION PLANNING (3)**

Theory, methods, and tools related to the systematic analysis of city, regional, and rural transportation problems. The focus is on fundamental land use and transportation interrelationships. Transportation as an integrated system composed of automobiles, public transit, bicycles, and pedestrian travel modes. "Level of service" and traffic impact assessment. Congestion management, energy conservation, sustainability and environmental impact considerations. Prerequisite: ENSP 310 recommended.

**ENSP 421 LANDSCAPES OF THE AMERICAN WEST (3)**

Use of and interactions with natural resources have transformed the American West over time, and greatly affected the western environment as we know it today. This seminar takes a historical look at the settlement, development, and management of the western landscape, both in terms of natural resources (timber, water, grazing, parks etc.) but also in terms of cultural settlement and use - and considers landscape as a tool for understanding the cultural/social/political history of a place. Students can expect to do some serious reading, writing, and thinking about how and why the West has become such a distinctive natural and cultural landscape. Open to juniors, seniors, and graduate students only or consent of instructor. Prerequisite: juniors, seniors and graduate students.

**ENSP 422 SPECIAL TOPICS IN CONSERVATION AND RESTORATION (2-3)**

Interdisciplinary seminar addressing ecological, historical, cultural, social, and/or policy aspects of different natural resource topics each year. Examples of topics could include forestry, wetlands ecology, fisheries, management, endangered species protection, etc. Students will read and discuss material from diverse sources to achieve a thorough understanding of a particular issue in conservation and restoration, allowing them to participate constructively in on-going policy and management debates. Open to juniors, seniors, and graduate students or consent of instructor.

**ENSP 423 RESTORATION ECOLOGY (5)**

Field course introducing major concepts and practical aspects of restoration ecology and land management. Topics include: the conservation context of restoration, restoration goals, measuring success, experimental approaches, dynamic systems and change over time, disturbance, restoring animal populations and the role of animals in ecosystem restoration, and educational elements of restoration. Practical techniques covered include: seed collection, ex-situ seed and plant management and propagation, invasive species removal, planting native species, and others. Topics are addressed in a variety of diverse local systems. Prerequisites: ENSP 302 or BIOL 122, or consent of instructor. Course fee.

**ENSP 424 FIRE ECOLOGY, MANAGEMENT AND POLICY (3)**

A seminar course exploring fire ecology, management and policy issues. Specific topics covered will include the use of fire or fire surrogates for restoring grassland, shrub land and forest systems; management of non-native species with prescribed fire; wildfire management, historical fire policy and its ecological implications for the western United States; climate change and fire. Prerequisite: ENSP 200. Course fee.

**ENSP 425 RESTORATION SEMINAR (3)**

This seminar focuses on the ideas and theories behind environmental restoration work and asks some critical questions about current challenges in the field: Where did the idea of restoration come from? What are the goals of environmental restorations, and how do you know if a project is meeting those goals? What do we really mean by the terms "wilderness," "native," "diversity," and so forth? Do environmental mitigation projects really work? We will also look at several real-work cases of restoration projects through the semester. Prerequisite: juniors, seniors and graduate students.

**ENSP 427 CONSERVATION DESIGN (3)**

This course applies concepts from landscape ecology and conservation biology to conservation planning and design in a rapidly urbanizing area. Focusing on an area of Sonoma County with both high conservation value and development pressure, the class will develop blueprint for biodiversity conservation and evaluate those strategies as alternative scenarios in a GIS environment. Prerequisite: ENSP 322, ENSP seniors only consent of instructor.

**ENSP 428 CONSERVATION RESEARCH METHODS (3)**

This research seminar emphasizes a current topic of applied and theoretical interest in the field of conservation biology. Students investigate the topic through a field research project, along with readings and discussions. Students contribute to all phases of the research, from generating hypotheses and collecting data in the field, to analyzing the data and writing a scientific paper based on the results. Each class focuses on a different topic and related set of field methods. Prerequisite: GEOG 205 or consent of instructor.

**ENSP 430 ENERGY FORUM (1-2)**

Speakers, including community professionals, program alumni and university faculty, cover a wide variety of energy issues with formal presentations followed by discussion period. May be repeated for credit. Prerequisite: ENSP majors, juniors/seniors standing.

**ENSP 431 SOCIETY AND THE ATOM (3)**

An overview of nuclear energy and nuclear weapons, including their history, an introduction to nuclear physics, reactor engineering and operations, fuel cycles, and discussion of regulation, weapons proliferation, security issues, risk assessment, and diverse political perspectives. Prerequisite: Junior/senior standing. PHYS 210A, CHEM 115A or equivalent.

**ENSP 437 PASSIVE SOLAR DESIGN (3-4)**

Fundamentals and advanced applications of passive solar design, including: site analysis and design; passive applications (sunspace, trombe wall, convective loop, direct, and indirect gain systems); passive performance predictions; and economic payback analysis. Computer applications and student design projects. Prerequisite: ENSP 337, junior or senior standing, ENSP majors and minors or consent of instructor.

**ENSP 438 SMALL SCALE ENERGY SOURCES (3-4)**

Course will focus on functional design of small-scale wind, photovoltaic, biomass, and hydroelectric energy sources. Siting, evaluating potentially available power, design of fully operable installation, and by-products and waste streams will be discussed. Energy storage mechanisms, interconnections to existing energy networks, and energy cost comparisons will be examined. Prerequisite: ENSP 338 or consent of instructor.

**ENSP 439L COMPUTER APPLICATIONS IN ENERGY MANAGEMENT LABORATORY (1-2)**

Applications laboratory addressing state-of-the-art computer programs in this field. Focus on simulation-and-design programs utilized in residential and commercial building compliance. Student projects and presentations. Prerequisite: ENSP 337, junior or senior standing, ENSP majors or minors; or consent of instructor.

**ENSP 440 EDUCATION AND THE ENVIRONMENT (4)**

This course is designed to provide an introduction to the history and current scope of environmental education; contemporary frameworks for learning and teaching; self, site, and audience assessment; and program options for schools and education centers. One overnight field trip, course fee required at time of registration.

**ENSP 442 METHODS AND MODELS IN EDUCATION AND THE ENVIRONMENT (3)**

An advanced course in environment-based education to build upon the fundamental theory and techniques presented in ENSP 440. The focus is on exemplary programs, place-based delivery techniques, curriculum and technologies. Several field trips to local schools and community education centers. Cr/NC only. Prerequisite: ENSP 440 or consent of instructor.

**ENSP 444 OUTDOOR LEADERSHIP (3)**

A survey course addressing the theory and practice of outdoor leadership. Central topics include safety and first aid; trip planning, leading and debriefing; business models and employment options; and outdoor skills such as orienteering, rock climbing, whitewater rafting, and sea kayaking. Course fee and overnight field trips. Classes meet the first half of the semester.

**ENSP 448 CLASSROOM GARDEN (1-2)**

Development of curriculum materials and teaching techniques to utilize school and community gardens as outdoor classrooms. Curriculum materials will relate to such topics as plant identification, growth cycles, photosynthesis, soils and nutrients, nutrition, insects, predator/prey relationships, pesticides, and soil and water pollution. Lesson plans suitable for elementary school level will be developed.

**ENSP 450 WATER TECHNOLOGY (4)**

The science and engineering of purifying polluted water for drinking. Applications of mathematics, microbial ecology, and chemistry to the practical problems of working toward California certification in water supply and water treatment. Course has extensive homework and field trips. Prerequisites: GE category B4 (Mathematical Concepts) and one semester of chemistry, ENSP majors or minors; or consent of instructor.

**ENSP 451 WATER REGULATION (3)**

The regulation of water supply and quality from all points of view including regulators, industries, scientific agencies, nonprofit organizations, and action agencies. The law, management, economics, and technology of water. Prerequisite: G.E. category D4 (U.S. Constitution and California State and Local Government).

**ENSP 460 TEACHING ASSISTANT IN ENSP (1-4)**

Open only to advanced students. Intended to give students experience in assisting the instructor in an environmental studies course by doing research and tutoring students in the class. Prerequisite: consent of instructor.

**ENSP 470 PLANNING INDEPENDENT STUDY (1-4)**

Contracts for group and individual interdisciplinary study for those qualified to work independently. Internships may be a part of the study. Prerequisite: consent of instructor required prior to registration. Prerequisite: written contract and faculty approval.

**ENSP 490 SENIOR PROJECT (1-4)**

Group and some individual studies. This major senior activity may be coordinated with independent studies and/or special problems to total 12 units. May be repeated for credit. Prerequisites: written contract and faculty approval.

**ENSP 495 SPECIAL STUDIES (1-4)**

Independent study designed in consultation with an instructor. Requires prior approval of ENSP faculty member and department chair. Prerequisite: successful completion of at least two ENSP courses and submission of a completed SSU special studies form.

**ENSP 497 SENIOR SEMINAR: ISSUES IN PROFESSIONAL PREPARATION (1-2)**

This seminar covers topics essential for professional preparation in the fields of conservation and restoration. Topics include discussions with guest speakers on career options in governmental, private, and non-profit settings; writing highly effective resumes, CVs and cover letters; and techniques for successful interviewing. The course will also cover preparation for future training in professional and academic fields. Required for seniors in the Conservation and Restoration study plan. Cr/NC only. Prerequisite: ENSP majors; senior standing.

**ENSP 498 SENIOR SEMINAR: ISSUES IN PROFESSIONAL PRACTICE (1-2)**

Discussion of situations and challenges new planners are likely to encounter early in their professional careers. Seminars include discussions with professional planners on such topics as working with the public, elected officials, and other professionals; maintaining relations with the press; ethical dilemmas; and other matters of current concern. Discussion of students' internship experiences. Required for senior students in the Planning concentration. Must be taken within two semesters of graduation. Cr/NC only. Prerequisite: ENSP majors; senior standing.

**ENSP 499 INTERNSHIPS (1-8)**

For senior students (in most cases) working off-campus in experiential learning positions with written contract and faculty guidance. Cr/NC or a grade, depending on study plan. Prerequisites: ENSP majors only, senior standing, consent of instructor.

## Foreign Language (FL)

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### FL 101 SPECIAL TOPICS IN FOREIGN LANGUAGE (1-3)

### FL 102 SPECIAL TOPICS IN FOREIGN LANGUAGE (1-3)

### FL 195 ELEMENTARY SPECIAL STUDIES (1-4)

Directed, individual lower-division study in a modern language.

### FL 214 WORLD LITERATURES IN ENGLISH (3-4)

Introduction to selected works of world literature from Asia, Africa, Europe, North America, Latin America and Mexico, and from the classic literatures of Greece and Rome. Background lectures on literature, literary genres and the different cultural histories will be given. Basic techniques of reading, analysis and composition will be emphasized. Satisfies GE, category C2 (World Literature). Prerequisite: ENGL 101.

### FL 230 MODERN LANGUAGES, CULTURAL STUDIES (1-3)

### FL 314 WORLD LITERATURES IN ENGLISH TRANSLATION (3)

Studies in world literatures in English translation. Topics may include non-western cultural and religious values, colonialism vs. emerging nationalisms, and the quest for identity, personal, cultural and national. Satisfies GE, category C2 (World Literature). Prerequisite: ENGL 101.

### FL 495 SPECIAL STUDIES (1-4)

Directed and individual study on subject(s) of special interest. Students must prepare a proposal which is subject to the approval of the department chair.

## French (FR)

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### FR 101 FIRST SEMESTER FRENCH (4)

Assumes no prior experience in French. Moves from simple, everyday greetings to basic vocabulary and phrases describing people, places, clothing, food, travel, studies, sports, and professions. Competency-based testing of listening, speaking, reading, writing, and cultural skills. Requires concurrent enrollment in FR 101L.

### FR 101L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) weekly of practice sessions involving on-line exercises and/or interactive exercises. Cr/NC only. Prerequisite: concurrent enrollment in FR 101.

### FR 102 SECOND SEMESTER FRENCH (4)

Students progress through increasingly complex sentence structures. Listening and speaking competence tested at intermediate low levels; reading and writing at intermediate mid levels. (Testing includes cultural knowledge.) Requires concurrent enrollment in FR 102L. Prerequisite: FR 101 or by examination.

### FR 102L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) weekly of practice sessions involving on-line exercises and/or interactive exercises. Cr/NC only. Prerequisite: concurrent enrollment in FR 102.

### FR 201 THIRD SEMESTER FRENCH (4)

A thorough and detailed review of all French grammar, supplemented by strong cultural content. This course is intended to enable the student to pursue his or her interests independently. Testing (includes cultural knowledge) of speaking and listening skills at the intermediate-mid levels, reading and writing at the intermediate-high levels. Requires concurrent enrollment in lab, FR 201L. Prerequisite: FR 102 or by examination.

### FR 201L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) weekly in practice sessions involving on-line exercises and/or interactive exercises. Cr/NC only. Prerequisite: concurrent enrollment in FR 201.

### FR 202 ORAL FRENCH (4)

Required of majors. Extensive use of oral group activities, use of periodicals and listening comprehension through video and tapes. Practical work in phonetics and intonation. Speaking and listening competence at advanced-low level. Prerequisite: FR 201 or by examination.

### FR 300 INTRODUCTION TO LITERARY ANALYSIS AND CRITICAL WRITING (4)

Study of advanced aspects of French grammar and stylistics as encountered in literary and nonliterary texts, with a focus on introducing students to literary analysis of the various genres. Oral and written presentations. Course may be repeated once for elective credit with permission of instructor. Prerequisites: FR 201 or equivalent, and FR 202.

### FR 314 FRENCH LITERATURE IN ENGLISH TRANSLATION (4)

Studies in French-speaking Caribbean, African, Near Eastern, Asian, and/or North American literatures in English translation. Topics may include non-western cultural and religious values, colonialism vs. emerging nationalisms, and the quest for identity, personal, cultural and national. Satisfies GE, category C2 (World Literature). Prerequisite: completion of GE category A.

**FR 320 FRANCE YESTERDAY (4)**

French civilization: history, social and political institutions, and the arts, as revealed in written documents and visual media (architecture, painting, graphics, etc.), from the medieval period to the Revolution. Readings, discussion, and oral and written reports in French. Prerequisite: FR 300 or equivalent (may be taken concurrently).

**FR 321 FRANCE TODAY (4)**

French civilization: history, social and political institutions, and the arts, as revealed in written documents and visual media, Revolution to present. Readings, discussion, and oral and written reports. Prerequisite: FR 300 (may be taken concurrently).

**FR 410 FRENCH LITERATURE (4)**

Readings in theatre, prose and poetry representing major writers and movements from the Middle Ages, the Renaissance, Classical and the pre-Romantic periods. May be organized around themes or genres or by aesthetic movements. Readings, discussion, and oral and written reports in French. Prerequisite: FR 320.

**FR 411 FRENCH LITERATURE (4)**

Readings in theatre, prose and poetry from major writers and movements from the 19th and 20th, and early 21st Centuries. May be organized around themes or genres or by aesthetic movements. Readings, discussion, and oral and written reports in French. May be repeated for credit when content is different. Prerequisite: FR 321.

**FR 415 SPECIAL TOPICS IN FRENCH CULTURE (4)**

Topics vary according to current interests and issues, e.g., the Francophone world, Paris, the French film, French feminism and French impressionism. Readings, discussions, oral and written reports. May be repeated for credit when topics change. Prerequisite: FR 320 or 321 (may be taken concurrently).

**FR 475 SENIOR SEMINAR (4)**

An advanced writing course, culminating in a research paper on a literary topic, or a substantial piece of creative writing. This course may only be taken at SSU. It may not be taken abroad or at another U.S. university. Prerequisite: FR 321 or 411 (may be taken concurrently).

**FR 495 SPECIAL STUDIES (1-4)**

Directed individual study. Prerequisite: consent of instructor.

**FR 499 INTERNSHIP (1-4)**

Students in the internship program apply skills and methods mastered in their course work in French in a variety of situations in public and private agencies. Credit is awarded for completion of 3 hours of work (weekly average) per unit, participation in a seminar or conferences, and a final report. Placement must be arranged in advance with department coordinator.

**Geography (GEOG)**

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**GEOG 202 WORLD REGIONAL GEOGRAPHY (3)**

This course explores 4-5 world regions from a holistic perspective, examining their economic, political, demographic, cultural and environmental landscapes with considerable historic depth. The course also considers how each region fits within a larger global political and economic system, and how their roles have changed, particularly with globalization. Satisfies GE, category D5 (Contemporary International Perspectives).

**GEOG 203 HUMAN GEOGRAPHY (3)**

The course introduces students to a spatial perspective of cultural, economic, political, demographic, and environmental processes. We review the deep historical origins of many social processes and examine how they continue to influence our contemporary experience. We also study how these processes change as they move across geographic space and encounter other cultures and places. Satisfies GE, category D2 (World History and Civilization).

**GEOG 204 GLOBAL ENVIRONMENTAL SYSTEMS (4)**

An integrated study of the physical environment, focusing on the processes and relationships between the four spheres: the atmosphere, biosphere, hydrosphere, and lithosphere. Major topics include global and regional patterns of climate and weather, soils, distribution of plants and animals on earth, and erosional and depositional processes that create landforms on the earth's surface. Also explored are possible links between human activities and changes in climate and vegetation patterns and dominant landform processes. Field trips and hands-on lab exercises included. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences).

**GEOG 205 INTRODUCTION TO MAP READING AND INTERPRETATION (1)**

The intent of this course is to provide students a background on map projections and reference systems, scale concepts, coordinate systems, a bit of air photo interpretation, and topographic maps. Class time is a mix of lecture and lab work. This course, or its equivalent, is required for entry into Geography 315, 380, 385 and 387.

**GEOG 302 WORLD REGIONS IN GLOBAL CONTEXT (4)**

Selected regions of the world form the basis of study. Economic development, political problems, man-land relationships and global issues are covered. The course uses geographical methodologies and concepts and is interdisciplinary in its observations of world regions. Satisfies GE, category D5 (Contemporary International Perspectives).

**GEOG 314A FIELD EXPERIENCE NORTHERN CALIFORNIA (1-2)**

Field experience is provided in a variety of areas not usually offered in the regular geography courses. The course titles and contents may vary from semester to semester and may be repeated for credit. Please see the current Schedule of Classes for particular interest areas offered. A fee will be charged for this course. Up to 2 units of GEOG 314A, B and C in total may be counted toward the major.

**GEOG 314B FIELD EXPERIENCE NORTHERN CALIFORNIA (1-2)**

Field experience is provided in a variety of areas not usually offered in the regular geography courses. The course titles and contents may vary from semester to semester and may be repeated for credit. Please see the current Schedule of Classes for particular interest areas offered. A fee will be charged for this course. Up to 2 units of GEOG 314A, B and C in total may be counted toward the major.

**GEOG 314C FIELD EXPERIENCE BEYOND NORTHERN CALIFORNIA (2)**

Field experience in areas beyond the normal range of GEOG 314A and 314B, including but not limited to attending professional meetings in nearby states. Field Experience outside the United States (2-3). Cultural and physical studies of people and places through travel, observation and interaction, oral and written analysis. Destinations include Central and south American countries. Course contents and locations will vary; may be repeated for credit. check with instructor regarding destination and cost. Offered during Intersession or Summer Session. Prerequisite: consent of the instructor.

**GEOG 314D FIELD EXPERIENCE ABROAD (2-3)**

Field Experience outside the United States (2-3). Cultural and physical studies of people and places through travel, observation and interaction, oral and written analysis. Destinations include Central and south American countries. Course contents and locations will vary; may be repeated for credit. check with instructor regarding destination and cost. Offered during Intersession or Summer Session. Prerequisite: consent of the instructor.

**GEOG 314D FIELD EXPERIENCE BEYOND NORTHERN CALIFORNIA (2)**

Field experience in areas beyond the normal range of GEOG 314A and 314B, including but not limited to attending professional meetings in nearby states. Field Experience outside the United States (2-3). Cultural and physical studies of people and places through travel, observation and interaction, oral and written analysis. Destinations include Central and south American countries. Course contents and locations will vary; may be repeated for credit. check with instructor regarding destination and cost. Offered during Intersession or Summer Session. Prerequisite: consent of the instructor.

**GEOG 315 FIELD METHODS IN GEOGRAPHY (2)**

This course provides hands-on experience with field sampling techniques commonly used in biophysical data collection and spatial inquiry. Course topics include sample design, field measurements, statistical data analysis, report writing and the use of field equipment. Field work will be conducted mainly in the Fairfield Osborn Preserve and surrounding area. Data collected from vegetation sampling, soil descriptions, microclimate measurements, and geomorphologic observations will be used to interpret the natural and anthropogenic landscape. Throughout the course, students will work with Global Positioning System (GPS) units to accurately locate their field samples on the Earth, allowing for subsequent spatial analysis within a Geographic Information System (GIS). Prerequisites: Math 165 and GEOG 205, no exception but can be taken concurrently. Laboratory fee may be charged; see current Schedule of Classes.

**GEOG 320 GEOPOLITICS (4)**

In this course we dig deep into the field of geopolitics, the struggle for control over territory, transportation corridors, and natural resources. We analyze the origin of the discipline, its historical development, and key contemporary issues, including the Iraq War, the U.S. missile defense shield and the expansion of NATO, the promotion of democracy as a security strategy, Iranian nuclear ambitions, and Chinese military expansion. We will also examine the upsurge of nationalism since the end of the Cold War, and examine ethno-national rebellion from multiple perspectives, including the failure of nation-building, the failure of economic development, and competition over scarce natural resources.

**GEOG 322 LIBERATION ECOLOGIES: GLOBALIZATION, ENVIRONMENTAL, AND SOCIAL MOVEMENTS (4)**

This course examines some of the ways specific places and people have promoted, encountered, and negotiated the projects of development and globalization. We begin with a critical examination of 'development' and 'globalization' and a public narrative that has obscured their origins, intentions, and operations. We will use case studies of specific places where development and globalization have motivated resistance; often leading to new identity-based social movements. We will examine cases related to environmental degradation, land dispossession, gender and justice, and personal and community security. The course has a global perspective which includes, but is not limited to cases from the Third World. The class often enlists political ecology and political economy perspectives in our analysis.

**GEOG 330 HISTORICAL GEOGRAPHY OF NORTH AMERICA (4)**

A study of the settlement history of North America and of the changing concepts of man-environment relationships in the chronology of the Europeanization of the American landscape. Investigations into where and why people settled as they did, and the origins of the economic and spatial relationships that constitute the present American scene will be the focus of the course.

**GEOG 331 GEOGRAPHY OF WINE (3)**

California's wine industry in perspective, with a brief look at wine origins and world production. An examination of the various wine-growing regions of California. Included are discussions of climate, soil, wine history, grape-growing and wine making. Guest speakers who are experts in enology and viticulture will be featured.

**GEOG 335 GLOBAL FOOD SYSTEMS: SCARCITY AND SUSTAINABILITY (4)**

This course explores the development of agriculture from its origins to its modern forms. It discusses the historical development and current structure of five agricultural systems: small and large corporate farms in the development of the world, as well as traditional peasant production systems, plantations and green revolution forms in the developing world. It then considers issues such as world hunger, food aid, global commodity trade, and the affect of biotechnology in both the developed and developing world.

**GEOG 338 SOCIAL GEOGRAPHY (3)**

Studies aspects of demography, migration and the spatial dimension of social organization. Included in the course are the spatial perspectives of social well-being, poverty, crime and ethnicity. The spatial structure of human settlement, as well as political, religious and social values will be discussed. Satisfies upper-division GE, category E (Integrated Person).

**GEOG 340 CONSERVATION OF NATURAL RESOURCES (4)**

This class explores the use and management of natural resources. Each year, it focuses on a different set of renewable and non-renewable resources, such as water, oil, diamonds, rangeland, and others. It addresses topics such as distribution, scarcity, substitution, access and use-rights, resource cartels, regulation and sustainability. It also looks at how these issues are changing under globalization and the rise of transnational corporations.

#### **GEOG 345 TOURISM GEOGRAPHIES (4)**

Tourism is an essentially geographic activity. For tourists and the toured, it involves learning about and anticipating a different place. For host communities, tourists increase foreign contact and generate nearly 100 million jobs. And while the process is similar everywhere (anticipate, travel, experience the place and people, and return), each place is affected differently. With that concern with difference at the front, the class will explore the western history of tourism, different types of tourism, cultural representations of destinations, the affects of tourism on specific places and people (identity, cultural, economic, and environmental), and the political economy of tourism as a development strategy.

#### **GEOG 350 URBAN GEOGRAPHY (4)**

A consideration of urban origins, the diffusion of the city, and modern-day inter- and intracity phenomena. Topics to be discussed include urbanization, comparative urban forms, urban functional organization, land use, distribution of cities and their territories, and urban problems - pollution, housing and open space.

#### **GEOG 360 GEOMORPHOLOGY (4)**

Lecture 3 hours; laboratory, 3 hours. Explores the relationships between surface processes such as weathering, mass movements, running water, wind, waves and glacial ice, and the landforms these processes create. The course looks at geomorphic systems and the role of tectonics and climate in changing the balance of these systems. Actual research projects are presented to demonstrate geomorphic approaches to environmental questions. Students are exposed to research methods in the field and lab. Field trips and field reports, use of maps, and hands-on labs are included. A fee will be charged for this course. Prerequisites: GEOG 204, GEOL 102, or consent of instructor.

#### **GEOG 365 BIOGEOGRAPHY AND LANDSCAPE ECOLOGY (4)**

Biogeography is the study of plant and animal distributions at local to global spatial scales. This course seeks to understand the physical and biological processes that determine these patterns through time, as well as help design management strategies for conserving our planet's biological diversity. This is thus a highly integrative field of inquiry, pulling on concepts, theories and data from general ecology, landscape ecology, evolutionary biology, geology, and physical and human geography. Field trips consider the biogeography of plants and animals in the local anthropogenic landscape. Prerequisite: BIOL 115, 121, 122, or consent of instructor.

#### **GEOG 370 WEATHER AND CLIMATE (4)**

An exploration of the atmosphere, how it differs from place to place and time to time. The role of radiation, temperature, humidity, evaporation, cloudiness, precipitation and surface factors (topography, exposure and altitude) in differentiating world climates. Climate's influence on man physically and culturally, in history and prehistory. Climate change, drought and flood, and solar radiation are among the topics investigated in detail. Prerequisite: GEOG 204 or consent of instructor.

#### **GEOG 372 GLOBAL CLIMATE CHANGE: PAST, PRESENT AND FUTURE (4)**

An advanced course focusing on evidence of climate change in the past and potential climate change in the future. Present research methods used to investigate past climate and project possible climatic trends will be studied. The range of theories regarding past, present and future climate, and the response of the environment to such changes will be explored in detail. Prerequisite: GEOG 204 or consent of instructor.

#### **GEOG 375 NATURAL HAZARDS (4)**

Natural hazards do not exist alone, but in reference to people. This course provides a survey of natural hazards in relation to human populations and activities around the world. The focus is on natural disasters generated by weather, climate, geomorphic, and biogeographical events and processes. Students study natural occurrences such as drought, severe weather, hurricanes and tornadoes, as well as fires and air pollution events. We also look at landslides, floods, volcanic eruptions, tsunamis, earthquakes, and disease dispersals such as ebola, and bird flu. Hazards related to global climate change are also explored. Basic concepts regarding risk assessment, hazard perception, population change, and impact on the built environment are studied. Prerequisite: Geog 204 or consent of instructor.

#### **GEOG 380 REMOTE SENSING AND IMAGE PROCESSING (4)**

Lecture, 3 hours; laboratory, 3 hours. In this class, students learn how to create land-cover maps from satellite imagery. Raw satellite images are imported into computer software programs, preprocessed for radiometric and geometric corrections, enhanced for better interpretation, and finally classified into land cover maps using various techniques. These land cover maps are then assessed for accuracy through field ground truthing using geographic positioning systems. Students make land-cover maps of Sonoma county and use these to monitor changing land-use and cover patterns. Students utilize various software programs, including IDRISI and ERDAS. The class incorporates hands on computer labs, field trips, and an independent project. Prerequisites: GEOG 205, no exception but can be taken concurrently. Laboratory fee may be charged; see current Schedule of Classes.

#### **GEOG 385 CARTOGRAPHIC VISUALIZATION (3-4)**

Lecture, 2 hours; laboratory, 3 hours. Map and graphic methods in geography: history, design, theory and construction. Topics include selection of map projections, use of scales, generalization, data input and processing, color, visualization of spatial data, and map production. Emphasis is placed on effective communication through graphic design. Covers the increasing role of geographic information systems (GIS) in cartography. Also examines the collection of geographic data, such as with global positioning systems (GPS). Exercises guide students through increasingly complex methods of data collection and cartographic construction. Prerequisite: GEOG 205, no exception but can be taken concurrently. Laboratory fee may be charged; see current Schedule of Classes.

#### **GEOG 387 GEOGRAPHIC INFORMATION SYSTEMS (4)**

Geographic information system (GIS) technologies provide researchers and policy makers with a powerful analytical framework for making decisions and predictions. As with any technology, the appropriate use of GIS depends greatly on the knowledge and skills of the user. This course addresses the scientific and technical aspects of working with geographical data, so that GIS users understand the general principles, opportunities, and pitfalls of recording, collecting, storing, retrieving, analyzing, and presenting spatial information. Both fundamental concepts and "hands on" experience with state-of-the-art software are incorporated through readings, lecture discussion and laboratory assignments. The first half of the course focuses on the "nuts and bolts" of how a GIS works, while the second half concentrates on methods for spatial analysis and modeling. Prerequisite: CS101 or basic competency with Microsoft operating system and Office applications, and GEOG 205 with no exception but can be taken concurrently. Laboratory fee may be charged; see current Schedule of Classes.

#### **GEOG 390 GEOGRAPHY OF CALIFORNIA (3)**

California as a state and as a region is in many ways unique. This course examines both the singular physical and human aspects of the State, from its unusual geologic history, climate, and vegetation, through its earliest inhabitants, to its present day diverse population and trend-setting economic, political, and cultural atmosphere. Issues discussed include changing populations and regional differences, evolving urban areas, water resources, agriculture, and forestry.

**GEOG 392 LATIN AMERICAN CULTURE AND ENVIRONMENT (4)**

A consideration of topics of special importance to Latin America, including population growth, urbanization and economic development. Specific countries will also be examined in detail, with an emphasis on settlement patterns and environmental characteristics.

**GEOG 393 SOUTH ASIA (4)**

This course covers four broad topics in South Asia: (1) geopolitics, including foreign policy objectives of key states in the region, and competition for oil & gas; (2) the prospects for democracy in the region, with attention to Maoist rebellions in Nepal and India, tribal unrest and Islamist politics in Afghanistan and Pakistan, Hindu nationalism in India, the civil war in Sri Lanka, and the prospects for democratic reform in post-conflict Nepal; (3) economic development and stagnation, including the success of the high tech sector and the continuing poverty of agricultural and industry laborers; and (4) human-environment relations, including land degradation, water shortage, and environmental protest movements.

**GEOG 394 AFRICA SOUTH OF THE SAHARA (4)**

Students explore various historical and contemporary processes that have created Africa's diverse and complex geography. The course begins with a historical survey of the continent, starting with its great civilizations and continuing through its experiences through colonialism, independence, the cold war, and globalization. This section of the class examines how these major events have played out throughout the different regions of Africa, south of the Sahara. The class then turns directly to thematic issues that are central to a human-geographic perspective of the continent: population, rural/urban dynamics, education and health issues, and human-environment interactions including agricultural systems and conservation issues. Finally, with a deeper understanding of the region, the course addresses present-day political hot spots of post-cold war Africa, and the critical development problems plaguing the continent.

**GEOG 396 SPECIAL TOPICS IN AREA STUDIES (4)**

This course will cover regions not regularly taught in the department. Regions may include areas such as The Middle East, East Asia, Southeast Asia, Arid lands, The Pacific Rim/World or underdeveloped lands. Offerings will vary depending on visiting faculty, experimental courses, and educational needs.

**GEOG 487 ADVANCED GEOGRAPHIC INFORMATION SYSTEMS (3)**

This course provides greater depth in the foundations of geographic information systems (GIS). Readings, group discussions, and lectures delve into database development issues, advanced spatial analysis, and GIS research applications. Students also complete a semester-long research project using GIS technologies. Students learn to identify problems that can benefit from a spatial-analytical approach and determine the appropriate data for pursuing such a project. Students build their own GIS database, mastering skills such digitizing and attributing spatial data; importing data from the internet; collecting field data for GIS integration; and converting GIS layers into a single coordinate system and map projection. Finally, students learn to choose and implement the most appropriate spatial analysis method for their research, and then interpret the results. Prerequisite: GEOG 387 or consent of instructor.

**GEOG 490 SENIOR SEMINAR (3-4)**

The focus of the seminar may vary, but the class will expose students to the nature of the discipline of geography through readings of scholarly literature. The class will emphasize a student research project and will include classroom discussions during the course of the semester.

**GEOG 495 SPECIAL STUDIES (1-4)**

Special studies may be arranged to cover an area of interest not covered in the courses otherwise offered by the department. Prerequisites: completed special studies form and consent of the instructor.

**GEOG 496 SELECTED TOPICS IN GEOGRAPHY (2-5)**

A single subject or set of related subjects not ordinarily covered by the geography department. Offerings will vary depending on visiting faculty, experimental courses and educational needs.

**GEOG 499A GEOGRAPHY INTERNSHIP PROGRAM (2-5)**

Students in the internship program will be given the opportunity to gain practical experience using geographical skills by working in a variety of county and city agencies in the Sonoma State University service area. Credit is given for three hours per unit work per week as arranged with the internship coordinator. Must have junior or senior class standing, and a minimum GPA of 2.75, or permission from the Department Chair. GEOG 499A is offered in Fall; GEOG 499B is offered in Spring.

**GEOG 499B GEOGRAPHY INTERNSHIP PROGRAM (2-5)**

Students in the internship program will be given the opportunity to gain practical experience using geographical skills by working in a variety of county and city agencies in the Sonoma State University service area. Credit is given for three hours per unit work per week as arranged with the internship coordinator. Must have junior or senior class standing, and a minimum GPA of 2.75, or permission from the Department Chair. GEOG 499A is offered in Fall; GEOG 499B is offered in Spring.

**GEOG 595 GRADUATE SPECIAL STUDIES (1-6)**

Advanced research and writing. Students work under close supervision of faculty members. Subject matter variable. May be repeated for credit. Prerequisites: consent of instructor and completed special studies form.

## **Geology (GEOL)**

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### **GEOL 102 OUR DYNAMIC EARTH: INTRODUCTION TO GEOLOGY (3)**

Lecture, 2 hours. Laboratory, 3 hours. A study of the minerals, rocks and landforms that make up our earth in the context of the dynamic forces that form them. Emphasis on local geology, including earthquakes and other environmental aspects. Laboratory study of minerals, rocks and maps. Required one-day weekend field trip. Fee required. Satisfies GE, category B1 (Physical Sciences) and GE laboratory requirements.

### **GEOL 105 THE AGE OF DINOSAURS (3)**

Lecture, 3 hours. The life and death of dinosaurs as evidenced by the fossil record will be studied to show how geology and biology combine in the discipline of paleontology. The evolution of dinosaurs over a 150 million- year time span sets the stage to investigate several interesting and ongoing controversies surrounding dinosaurs, including: why dinosaurs became extinct, the metabolism of dinosaurs, and the relationship between birds and dinosaurs. Satisfies GE, category B1 (Physical Sciences).

### **GEOL 107 INTRODUCTION TO EARTH SCIENCE (3)**

This course studies the operation of the Earth system and its solar system home. It introduces the fundamental aspects of 4 major areas: astronomy; geology, including plate tectonics, and the planetary history of the Earth and its moon; physical oceanography; and weather and climate. There is no lab. The course is designed to prepare students for the earth science and astronomy parts of the SET examination. The prerequisite is that a student must be enrolled in the AMCS, LIBS, CALS, or ENSP credential program. This class is not allowable as a prerequisite for upper division Geology courses.

### **GEOL 110 NATURAL DISASTERS (3)**

A course to examine the interaction between natural processes and human activities and the often costly and fatal results. Course emphasis will be on the principles underlying natural disasters such as earthquakes, volcanic eruptions, landslides, floods, severe weather, coastal processes, asteroid impacts, fires, great dyings, and population growth. Many examples will be drawn from the northern California area. Extensive internet work for current information. Course content may vary with instructor. Satisfies GE, category B3 (Physical Sciences, Specific Emphasis).

### **GEOL 120 REGIONAL FIELD GEOLOGY (3)**

Lecture, 1 hour. The heart of geology is in the field. The course is an examination of rocks, minerals and landforms, and the processes that form them. This course includes a 10-day field trip taken during spring vacation, where the natural world becomes our classroom. Prerequisites or corequisite: any 100 level geology course or instructor consent; students must be in good physical condition.

### **GEOL 205 MINERALOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Principles of crystal chemistry, crystallography, properties, and origin of common rock-forming minerals. Laboratory sessions emphasize hand specimen and petrographic mineral identification characterization. Prerequisites: completion of or concurrent enrollment in GEOL 303 and CHEM 115A.

### **GEOL 205A MINERALOGY, OPTICS (2)**

Supplementary course to be held concurrently with GEOL 205. For students who already have taken a mineralogy course but have not gained sufficient experience in optical mineralogy. Consists of the lecture and laboratory portion of GEOL 205 relevant to optical mineralogy. Pre/Corequisite: GEOL 303 and CHEM 115A.

### **GEOL 301 NATURAL HISTORY OF THE HAWAIIAN ISLANDS (3)**

Lecture, 3 hours. The origin and evolution of the flora and fauna of the most isolated archipelago in the world; geologic history and context of volcanic oceanic islands; conservation biology efforts to save the rare and endangered species of Hawaii. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: BIOL 115 or 121/122.

### **GEOL 302 GEOLOGY OF CLIMATE CHANGE (3)**

Lecture, 3 hours. Climate changes on time scales of days to millions of years. We will review methods by which the amplitude and pacing of climate changes are measured, use data analysis to assess the significance of past climate variability, and consider interpretations and theories proposed to explain Earth's climate. Prerequisites: GEOL 102 and CHEM 115A.

### **GEOL 303 ADVANCED PRINCIPLES OF GEOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. Advanced treatment of the principles, methods and tools within the Geological Sciences. We will discuss topics such as: Plate Tectonics, Earth materials and resources, Earth surface processes, Geological hazards, How to read geological and topographic maps, How we decipher geological history, and much more. Prerequisite: One of the following: GEOL 102, 110, 107, 105, 120; ANTH 202, ENSP 303, or GEOG 204.

### **GEOL 304 GEOLOGIC MAPPING AND REPORT WRITING (1)**

Field studies and report preparation done in conjunction with GEOL 303. Required weekend field trips. Prerequisite: concurrent enrollment in GEOL 303. Students must be in good physical condition.

### **GEOL 305 OPTICAL MINERALOGY (3)**

Lecture, 1 hour. Laboratory, 6 hours. Introduction to crystallography and the principles of optical mineralogy. Laboratory exercises are devoted to understanding the properties of crystal lattices and the fundamentals of mineral identification with the petrographic microscope. Prerequisites: GEOL 205, GEOL 303 and MATH 107.

### **GEOL 306 ENVIRONMENTAL GEOLOGY (3)**

Lecture, 3 hours. Study of geological principles and processes as they relate to our natural environment emphasizing interaction between human activities and the geological environment. Major topics include the nature and behavior of rocks and soils; earthquakes and their associated hazards; landslides, slope stability and building construction; groundwater and pollution; stream processes and flooding; shoreline processes and coastal development; engineering geology and construction of highways and dams; development of natural resources, conservation and ecology. Specific content varies year to year, depending on instructor. Prerequisite: GEOL 102 or consent of instructor.

### **GEOL 307 IGNEOUS AND METAMORPHIC PETROLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. A study of the origin, properties, classification and occurrence of igneous and metamorphic rocks. Laboratory exercises in the classification and description of minerals, textures and structures of the more common rock types. Laboratory work will emphasize both hand specimen analysis and microscopic petrography. Prerequisites: GEOL 205 and GEOL 303.

### **GEOL 308 IGNEOUS AND METAMORPHIC PETROLOGY FIELD COURSE (1)**

Field studies done in conjunction with GEOL 307. Required weekend field trips. Fee required. Prerequisites: GEOL 304 and concurrent enrollment in GEOL 307. Students must be in good physical condition.

**GEOL 309 COMPUTER APPLICATIONS IN GEOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. This course aims to provide our majors with some fundamental skills for manipulating and representing geological data using computer applications. Applications include using digitizing field maps and data into GIS format, creating figures in computer aided drawing programs, using basic functions computational software and generating histograms, and rose diagrams. Pre/Corequisite: GEOL 303 and GEOL 304.

**GEOL 310 GEOPHYSICS (4)**

Lecture, 3 hours. Laboratory, 3 hours. This course will cover the basic underlying various geophysical methods, field procedures and data collection, and how to interpret geophysical data. Topics include seismic reflection and refraction, paleomagnetism, gravity and magnetic surveying, and how geophysical methods have augmented our overall understanding of the earth's structure and earth processes. Prerequisite: GEOL 303.

**GEOL 311 SEDIMENTARY GEOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. The description, classification and origin of sedimentary rocks. Discussion of weathering and origin of sediment, sediment transportation and sedimentary structures, clastic and nonclastic classification; and petrology. Prerequisite: GEOL 303 and 304.

**GEOL 312 SEDIMENTARY GEOLOGY FIELD COURSE (1)**

Lecture, 1 hour. Field studies done in conjunction with GEOL 411. Required weekend field trips. Prerequisites: GEOL 303 and concurrent enrollment in GEOL 311. Students must be in good physical condition.

**GEOL 313 PALEONTOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. The study of fossils in their geological context. Topics include taxonomy, morphology, evolution, biogeography, extinction and biostratigraphy of the main groups of invertebrate fossils. Laboratory work will include becoming familiar with stratigraphically important fossil groups and the use of fossils in solving both geological and biological problems. Prerequisites: GEOL 303 for majors, GEOL 102 for non-majors, or instructor consent.

**GEOL 314 PALEONTOLOGY FIELD COURSE (1)**

Lecture, 1 hour. Field studies done in conjunction with GEOL 313. Required weekend field trips. Prerequisites: GEOL 303 for majors, GEOL 102 for non-majors, and concurrent enrollment in GEOL 313. Students must be in good physical condition.

**GEOL 317 STRUCTURAL GEOLOGY (4)**

Lecture, 3 hours. Laboratory, 3 hours. An introduction to deformation processes within the earth's crust and the geological structures that result from these processes. We will examine deformation running the gamut of scales (from atomic scale to tectonic scale). The laboratory portion of this course will focus on methods of structural interpretation. Prerequisites: GEOL 303, GEOL 304, MATH 107 and pre/corequisite of GEOL 309.

**GEOL 318 STRUCTURAL GEOLOGY FIELD (1)**

Lecture, 1 hour. Field studies done in conjunction with GEOL 317. Required weekend field trips. Pre/corequisite: GEOL 317. Students must be in good physical condition.

**GEOL 320 BASIN ANALYSIS (4)**

Lecture, 3 hours. Laboratory, 3 hours. Origin and evolution of sedimentary basins; tectonic settings and significance, subsidence and thermal histories, basin-scale depositional systems, paleocurrent, provenance, and paleogeographic analysis, basin types, paleoclimatic influences, resources. Prerequisite: GEOL 311, 312, 317 and 318.

**GEOL 321 BURGESS SHALE PALEONTOLOGY (3)**

Lecture, 2 hours. Laboratory, 3 hours. Advanced examination of the Cambrian Burgess Shale fossil deposits in British Columbia, Canada. Field work supplements lecture sessions on campus. Prerequisites: GEOL 313, GEOL 314, and consent of instructor. Students must be in good physical condition.

**GEOL 323 HYDROLOGY (3)**

Lecture, 3 hours. Water as a natural resource, the hydrologic cycle, distribution of water on the earth. Atmospheric water, soil water, runoff and groundwater as related to water supply and use. Applications to problems of flood control, water management and water pollution, with special emphasis on California and Sonoma County. Prerequisites: GEOL 102 or consent of instructor; MATH 106 or 107.

**GEOL 326 STRATIGRAPHY AND EARTH HISTORY (4)**

Lecture, 3 hours. Laboratory, 3 hours. The principles of stratigraphy and historical geology will be discussed, with special emphasis given to the application of these principles to the geologic development of North America. The geologic history of California will be treated in detail. The use of sedimentary rocks, fossils, and structural and tectonic principles will be discussed, especially as they relate to our understanding of historical geology. Laboratory work will include a study of sedimentary rocks and their properties, fossils and their occurrence and distribution, the construction and interpretation of various types of stratigraphic maps, and detailed studies of selected maps representative of the various geologic provinces of North America. Required field trip. Prerequisite: GEOL 303 or consent of instructor.

**GEOL 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

CIP involves students in community problems such as tutoring, aiding in school science classes, and advisement of county agencies. A total of 6 units of CIP credit may be applied toward a degree. May be taken by petition only. Not applicable to the geology major.

**GEOL 396 INTERNSHIP IN GEOLOGY (1-4)**

Professional geologic work for a geologic firm or agency. Forty-five hours of work per unit. Not applicable to the geology major. Prerequisite: GEOL 303 and consent of instructor.

**GEOL 406 X-RAY MINERALOGY (2)**

Lecture, 1 hour. Laboratory, 3 hours. Introduction to the use of x-ray diffraction techniques. Prerequisites: CHEM 115A/116A and GEOL 305 or concurrent enrollment, and consent of instructor.

**GEOL 420 FIELD GEOLOGY (4)**

Lecture, 2 hours. This course is a synthesis of the geology-major, core courses. This course aims to hone our students' abilities to make valid geologic field interpretations through detailed field mapping and report writing. Twelve days of fieldwork are required. Prerequisites: GEOL 308, GEOL 309, GEOL 312, and GEOL 318. Students must be in good physical condition.

**GEOL 422 GEOCHEMISTRY (3)**

Lecture, 3 hours. Introductory cosmochemistry and origin of the elements; meteorites; the earth as a chemical system, chemistry of processes at the surface of the earth; mineral crystal chemistry; introduction to geochronology and stable isotope variations in nature; thermodynamics and its geological application; geochemical prospecting. Prerequisite: GEOL 303, CHEM 115AB/116AB, MATH 161, or consent of instructor.

### **GEOL 425 ECONOMIC GEOLOGY (3)**

Lecture, 3 hours. Classification, origin and alteration of metallic ore deposits. Laboratory sessions on hand sample identification of ore and alteration minerals and petrographic analysis of selected ore suites. Prerequisites: previous or concurrent enrollment in GEOL 307 and CHEM 115B/116B.

### **GEOL 426A SENIOR THESIS I (3)**

426A is the first semester of a senior thesis project. A senior thesis is an opportunity for students to engage in primary research. Students must write a proposal, defining the scope of their project. Thesis projects must be a two-semester project. Students will be required to present their projects at the Geology Colloquium. Prerequisite: thesis-advisor consent.

### **GEOL 426B SENIOR THESIS II (3)**

426B is the second semester of a senior thesis project. A senior thesis is an opportunity for students to engage in primary research. Students must write a proposal, defining the scope of their project. Thesis projects must be a two-semester project. Students will be required to present their projects at the Geology Colloquium. Prerequisite: thesis-advisor consent. Prerequisite: GEOL 426A.

### **GEOL 427 ADVANCED FIELD GEOLOGY (4)**

A minimum of five weeks of detailed mapping in igneous, metamorphic and sedimentary rocks, and the preparation of field reports and geological maps. Students may also complete this course at another university, but should do so only in consultation with the Geology Department. Students must demonstrate equivalence in terms of field hours and course content to GEOL 427. Prerequisite: senior standing in geology. GEOL 420 strongly recommended.

### **GEOL 495 SPECIAL STUDIES (1-4)**

Individual study, under guidance of an advisor, of an advanced field, laboratory or literature problem. Students must qualify and adhere to the department policy on independent study as outlined below. Prerequisite: approval of advisor. Department Policy on Independent Study (1) The student must have a 3.00 or higher grade point average (2) The student must have demonstrated ability to work independently and do quality work in field classes. (3) The student must have submitted a detailed proposal of work to do, schedule and results expected. (4) The student must have a faculty sponsor who is willing to advise the project and will set up a schedule of meetings for this purpose. This will be reported on the standard University Special Studies form and signed by the student, faculty advisor and department chair. (5) A copy of all documents and two copies of the final paper or report will be filed with the department office before a grade will be assigned.

### **GEOL 496 SELECTED TOPICS IN GEOLOGY (1-3)**

An intensive study of an advanced topic in geology. May be repeated for additional credit with new subject matter. Prerequisite: adequate preparation for topic under consideration. Additional fee may be required.

### **GEOL 498 GEOLOGY PRACTICUM (1-4)**

## **German (GER)**

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### **GER 101 1ST SEMESTER - THE PERSONAL WORLD (4)**

German for beginners. Through communicative activities covering the four language skills (listening, speaking, reading, and writing), students learn to ask and answer questions and share information about themselves, their families, and their daily activities. Satisfies GE, category C4 (Comparative Perspectives and Foreign Languages). Prerequisites: None. Requires concurrent enrollment in GER 101L.

### **GER 101L LANGUAGE LABORATORY (1)**

A minimum of two academic hours (100 minutes) weekly of practice sessions in the language laboratories and/or on-line. Cr/NC only. Concurrent enrollment in GER 101 required.

### **GER 102 2ND SEMESTER - CONTEMPORARY GERMANY (4)**

Expansion of the skills acquired in GER 101. Students build on their knowledge of German culture. They improve their communicative competence, and develop skills needed to negotiate a variety of everyday situations in Germany. Satisfies GE, category C4 (Comparative Perspectives and Foreign Languages). Prerequisite: GER 101 or consent of instructor. Requires concurrent enrollment in GER 102L.

### **GER 102L LANGUAGE LABORATORY (1)**

A minimum of two academic hours (100 minutes) weekly of practice sessions in the language laboratories and/or on-line. Cr/NC only. Concurrent enrollment in GER 102 required.

### **GER 195 ELEMENTARY SPECIAL STUDIES (1-4)**

Directed individual study.

### **GER 200 INTERMEDIATE GERMAN - THE GERMAN-SPEAKING WORLD TODAY (4)**

This course introduces various cities and regions that provide the context to review first-year German. Students develop ability to communicate in German and their understanding of Germany, Austria, and Switzerland by engaging with increasingly complex topics (i.e. education, environmental issues, politics, history). Satisfies GE, category C4 (Comparative Perspectives and Foreign Languages). Prerequisite: GER 102 or consent of instructor. Requires concurrent enrollment in GER 200L.

### **GER 200L LANGUAGE LABORATORY (1)**

A minimum of two academic hours (100 minutes) weekly of practice sessions in the language laboratories and/or on-line. Cr/NC only. Concurrent enrollment in GER 200 required.

### **GER 210 INTERMEDIATE GERMAN THROUGH FILM (4)**

This course uses films to expand students' knowledge of the history and culture of the German-speaking world. Films promote vocabulary enhancement, grammar review as well as improvement of speaking and writing skills. Cross-cultural comparisons encourage critical thinking skills. Satisfies GE, category C4 (Comparative Perspectives and Foreign Languages). Prerequisite: GER 102. Requires concurrent enrollment in GER 210L. This course may be taken before GER 200.

### **GER 210L LANGUAGE LABORATORY (1)**

A minimum of two academic hours (100 minutes) weekly of practice sessions in the language laboratories and/or on-line. Cr/NC only. Must be taken concurrently with GER 210.

**GER 300 ADVANCED GERMAN STUDIES (4)**

Prepares students for the "Zertifikat Deutsch" Proficiency Examination. Students acquire differentiated vocabulary, greater grammatical accuracy, and improve their speaking and writing skills by focusing on varied language use in different contexts. Content may include: issues of gender or multiculturalism; the continued influence of the Nazi past; German reunification. Prerequisites: GER 200 and GER 210, or consent of instructor. Course may be taken before GER 314. May be repeated for credit under different subtitles. Must be taken in residence at SSU.

**GER 310 GERMANY TODAY (3)**

A general introduction to present-day Germany and its people, attitudes, customs and popular culture. Reading and discussion of current and recent material from German newspapers and magazines. Includes discussion of film visual art, and music.

**GER 312 GERMANY IN FILM I (3)**

Salient aspects of current German society and its turbulent recent history, introduced through German film. Includes consideration of Austria and Switzerland. Some filmmakers to be treated: Herzog, von Trotta, Wenders, Fassbinder, Petersen, Schlöndorff; films may include *The Tin Drum*, *Das Boot*, *Europa Europa*, *Mephisto*, and *The Nasty Girl*. All films in German with English subtitles; course taught in English with frequent reference to German terms and concepts.

**GER 313 GERMANY IN FILM II (3)**

German society of the 1920s, '30s, and early '40s, introduced through German film. Focus on contrasts between expressionistic trends of the 1920s Weimar Republic and fascist-oriented developments under Nazi rule. Filmmakers to be treated may include Lang, V. Harbou, Engel, Riefenstahl; films include *Olympia*, *Triumph of the Will*, *Caligari*, *Kolberg*, *Dr. Marcuse*, and *M*.

**GER 314 LITERATURE AND CULTURE FROM THE GERMAN-SPEAKING WORLD (3-4)**

Studies of literature, film, art, and the cultural histories of German-speaking countries. Taught in English. Satisfies GE, category C2 (World Literature). Prerequisite: ENGL 101 and GER 102, or consent of instructor. Requires concurrent enrollment for German minors in GER 399L. May be repeated for credit under different title.

**GER 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

CIP involves students in basic community problems, performing such tasks as tutoring, coaching, and assisting others in the process of learning. Students receive one to four units, depending on the specific tasks performed. Prerequisite: consent of instructor.

**GER 399L LANGUAGE LABORATORY (1)**

A minimum of two academic hours (100 minutes) weekly of practice sessions in the language laboratory or online. Cr/NC only. German minor students must take this course concurrently with GER 314.

**GER 405 THE ART OF TRANSLATING (3)**

Intensive practice in translation from German to English, and vice versa, of prose (both literary and media-style), drama and poetry. Thorough attention is paid to the pitfalls of translation as well as to developing the special artistry that good translation demands. Prerequisite: GER 301.

**GER 490 SENIOR SEMINAR IN AREA STUDIES (4)****GER 491 SENIOR SEMINAR IN AREA STUDIES (4)****GER 495 SPECIAL STUDIES (1-4)**

Directed individual study. Prerequisite: consent of instructor.

**GER 499 INTERNSHIP (1-4)**

## **Gerontology (GERN)**

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### **GERN 300 THE JOURNEY OF ADULTHOOD (3)**

Introduces the study of aging from biological, psychological, sociological, and environmental perspectives. Aging is presented as a normal stage of development with both positive and negative aspects. Specific issues discussed include: health care, housing, income maintenance, and advocacy. Satisfies GE, category E (The Integrated Person).

### **GERN 304 SIBLING RELATIONSHIPS (4)**

An exploration of the role of siblings to personal and family development, with a focus on sibling relationships in adulthood and later life. An emphasis will be placed on the psycho-social context of the sibling relationship in addition to theories of the psychology of the individual. Crosslisted as PSY 304.

### **GERN 305 ISSUES IN LATER LIFE DEVELOPMENT (2-4)**

Focuses on contemporary issues and topics in gerontology. Selected issues incorporating historical, cultural, social, psychological, and policy perspectives may be offered. Consult Schedule of Classes for the specific topic and current unit offering. May be repeated for credit.

### **GERN 312 ADULT DEVELOPMENT LECTURE SERIES (2)**

Lectures and presentations on thematic issues in the field of adult development and aging. Speakers are drawn from local community programs, Bay Area research organizations, and academic disciplines. May be repeated for credit. Crosslisted as PSY 312.

### **GERN 317 EMOTIONS AND ADULT LIFE (4)**

Emphasizes the social context and social development of emotional responses throughout adulthood. Analyzes the reciprocal relations between social definitions and subjective feelings in connection with life events throughout adulthood. Addresses both basic emotions, such as fear, anger, pleasure and excitement, and more complex emotions, such as love, jealousy, grief, sympathy, pride, shame and despair. Crosslisted as SOCI 317. Satisfies GE, Category E (The Integrated Person).

### **GERN 319 AGING AND SOCIETY (4)**

Examination of aging throughout adulthood. Analysis of theories of aging, their foundations in social science theory, and their policy implications. Exploration of the meanings and consequences of increasing longevity for society and the individual, with emphasis on the social psychological implications for women, minorities, and those who are poor. Satisfies GE, category D1 (Individual and Society). Crosslisted as SOCI 319.

### **GERN 332 DEATH AND AMERICAN CULTURE (4)**

The relation of cultural values to practices, attitudes, and views about death. Application of sociological and psychological theories to topics on death and dying, such as death conceptions, terminal care, suicide, war, and grief. Emphasis on the social psychology of dying, caregiving, grieving and being suicidal. Crosslisted as SOCI 332.

### **GERN 399 STUDENT INITIATED COURSE (1-4)**

A course designed by an advanced student, approved by the gerontology program, and taught by the student under the supervision of his/her faculty sponsor. Consult the Schedule of Classes for topic to be studied. May be repeated for credit.

### **GERN 408 TRANSITIONS IN ADULT DEVELOPMENT (4)**

This course explores how women and men experience and shape the transitions that occur as they mature socially and psychologically. Inquiry includes normative life cycle transitions as well as unexpected, unusual, or "off-time" transitions and develops understandings of how these transitions shape the development of an individual through adulthood and later life. Crosslisted as PSY 408. Prerequisite: junior standing.

### **GERN 421 PSYCHOLOGY OF AGING (4)**

Analysis of psychological development as a lifelong process. Examination of theories of psychological growth in later life. Exploration of the role of memory for learning and psychological functioning. Study of issues in mental health in adulthood. Crosslisted as PSY 421.

### **GERN 422 LIVING AND DYING (4)**

Explores personal values and attitudes about life and death and seeks to understand them in relation to our own psychology and to the larger social context. Topics of separation and loss, loss as a transformative process, aging, the dying process, bereavement, suicide, homicide, near-death experiences, mythology, and immortality will be addressed. Crosslisted as PSY 422. Prerequisite: Junior standing. Prerequisite: Junior standing.

### **GERN 432 GROUP WORK WITH OLDER ADULTS (4)**

This service-learning course introduces students to the fundamentals of group work with older adults. The class provides an overview of the phases of group development and basic skills and techniques for facilitating effective groups. Theoretical perspectives from sociology and psychology are used to examine how groups function, the value they have for older adults, and common themes in groups for older adults. To enhance learning, students go to senior sites in the community to co-facilitating weekly intergenerational dialogue groups. Crosslisted with SOCI 432 and PSY 432. Prerequisite: Junior Standing.

### **GERN 438 PSYCHOLOGICAL ASPECTS OF DISABILITY (3-4)**

This course is designed to give participants a better understanding of people with disabilities and an awareness of how society regards them. The disabilities addressed range from traumatic physical injuries through progressive diseases and conditions to mental retardation, alcoholism and emotional disabilities. The class is appropriate for anyone interested in disability, whether for personal or professional reasons. Crosslisted with PSY 438.

### **GERN 452 HEALTH CARE AND ILLNESS (4)**

A dual focus on the social organization of health care and the social psychology of illness. Analyses of the structure of care, patient-practitioner relationships, and treatment ideologies. Emphasis on the patient's experience of illness, intimate relationships, and self-images.

### **GERN 482 TEACHING INTERNSHIP (1-4)**

Students learn the skills of organization and communication of psychological theory and research under the supervision of a faculty mentor. Prerequisites: GERN 300 and consent of instructor.

### **GERN 490 INTERNSHIP SEMINAR (1)**

In this optional seminar, students report on the progress of their internships and discuss institutional procedures and interactional processes particular to their internship sites. Case and data management techniques will be discussed. The seminar allows opportunity for group problem-solving, objective analysis of internship issues, and enhancement of professional networks. Requirements: concurrent enrollment in GERN 499 and consent of instructor.

**GERN 493 NARRATIVE: THEORIES AND METHODS (4)**

The course examines the role of narrative, or life storying, in human development research. Students will develop a protocol, conduct research in the community using interview methodologies appropriate to the narrative perspective, analyze transcriptions for theoretical and life themes, and develop a final project based on the analysis of the data. Cross-listed as PSY 493.

**GERN 495 SPECIAL STUDIES (1-4)**

Students may propose to participate in independent projects or continuing research with the approval and guidance of the faculty member. The special study may extend for more than one semester. May be repeated for credit.

**GERN 499 GERONTOLOGY PRACTICUM (1-4)**

Field experience in an agency or organizational setting in which the student combines work with academic preparation in programs concerned with aging and/or health. A-F or Cr/NC.

**GERN 500 SOCIAL AND PSYCHOLOGICAL ISSUES IN AGING (2-4)**

Analysis of the aging process and its social implications. Selected issues provide exploration of relationships between psychological and social development in later life. Developmental, historical, cultural, psychological, and policy perspectives may be offered. Consult Schedule of Classes for specific topic. Crosslisted as PSY 500. Prerequisite: graduate standing or permission of instructor. May be repeated for credit.

**GERN 515 GRADUATE RESEARCH SEMINAR (1-4)**

Intensive review of literature in specific areas of concentration. Emphasis is on individual student's research interests. Includes research design and implementation. Prerequisite: graduate standing or permission of instructor.

**GERN 561 POLITICS OF HEALTH AND AGING (4)**

An examination of U.S. state and local health care and aging policy and administration. Crosslisted as POLS 509.

**GERN 582 TEACHING COLLEGE GERONTOLOGY (1-4)**

Practical experience of supervised teaching in a college gerontology classroom. Prerequisite: Consent of instructor.

**GERN 583 GRADUATE RESEARCH ASSISTANT (1-4)**

Students learn advanced research methods and practical research skills under the supervision of a faculty member. Prerequisite: Consent of instructor.

**GERN 595 SPECIAL STUDIES FOR GRADUATE STUDENTS (1-4)**

Students should formulate plans for a project and present them to a faculty member for sponsorship. Special forms for this purpose are available in the department office. Prerequisite: graduate standing and consent of instructor.

**Global Studies (GLBL)****GLBL 199 FRESHMAN INTRODUCTION TO GLOBAL ISSUES (1)**

A flexibly structured discussion seminar designed to enhance entry-level students' knowledge and analysis of prominent global issues. Students will be required to read and report on globally relevant items from the Christian Science Monitor or other approved daily newspapers with extensive international coverage.

**GLBL 300 LOCAL RESPONSES TO GLOBAL ISSUES: CASE STUDIES FROM AROUND THE WORLD (3)**

This class examines various ways in which individuals take action to solve global social problems in their own local cultural, political and economic contexts. Students explore the social structures that create social problems, such as human trafficking and political oppression, and how local people adapt to, and seek to change, those structures. Satisfies GE, category D1 (Individual and Society). Prerequisite: a GE, category D5 course.

**GLBL 350A SERVING THE GLOBAL COMMUNITY (1)**

Students will read a text, such as Arthur Kleinman's «What Really Matters», and discuss what it means to live in a world that cries out for human involvement and service. All people, both in developed and developing countries, live on the edge of survival, at constant risk of going under (due to disease, economic collapse, societal chaos, or simply the aging process itself). In the class, we will discuss the importance of being of service in the global effort to live a quality existence. And we will read about individuals who have taken it upon themselves to serve humanity in one way or another. A few examples include: Muhammed Yunus, founder of the Grameen Bank; Paul Farmer's work with patients with infectious diseases; Al Gore's commitment to the environment; Millard Fuller, founder of Habitat for Humanity. Cr/NC only.

**GLBL 495 SPECIAL STUDIES (1-4)**

Directed individual study. Prerequisite: consent of instructor.

**GLBL 497 CROSS-CULTURAL COMMUNITY SERVICE INTERNSHIP (3)**

A three-unit community service internship is required of all students. This is a supervised program of cross-cultural community service work and study for a governmental or non-governmental agency, completed either at home or abroad. A minimum of 135 hours of supervised work is required. Students will keep a daily journal of their experiences, and upon completion will submit 1) a formal letter from their internship supervisor, verifying hours worked and duties performed; and 2) a four-page essay summarizing their experience in rich personal detail. Information about a broad spectrum of internship options is available from the Global Studies coordinator, whose approval is required for all service internship proposals. Cr/NC only.

**GLBL 498 CAPSTONE SEMINAR (4)**

In spring of the senior year, Global Studies majors will enroll in a seminar devoted to research on globally relevant issues of the student's choosing, in consultation with the instructor. Each student will produce an original research paper on such issue, examined from various disciplinary perspectives. This project is the capstone requirement for completion of the Global Studies degree. The paper must be approved in its final draft by at least one other qualified faculty member besides the seminar instructor.

## Hebrew (HEBR)

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### HEBR 101 ELEMENTARY MODERN HEBREW - FIRST SEMESTER (4)

This course offered as the first semester course in Hebrew Program. As such it addresses appropriate material for the beginning level. The course requires no prior Hebrew background. Students are exposed to spoken Hebrew during each class; they are expected to communicate in Hebrew with one another as well as with the instructor.

### HEBR 102 ELEMENTARY MODERN HEBREW - SECOND SEMESTER (4)

Hebrew for beginners, second level. Elementary oral expression and fundamentals of grammar, cultural readings and beginning practice in composition. Prerequisite: JWST 101 or equivalent or instructor permission.

## History (HIST)

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### HIST 150 HISTORY: CREDIT BY EXAMINATION (3)

Challenge Examination - The state code requirement in world or U.S. history may be satisfied by passing the department's challenge examination. (Dates and times are published at the beginning of each semester.) Instructor consent required.

### HIST 201 FOUNDATIONS OF WORLD CIVILIZATION (3)

An introduction to the early, classical and medieval civilizations that have most influenced the modern world. Developments (from prehistory to 1500 CE) include the Eastern traditions of India, China and Japan; the world of Judaism, Christianity and Islam; the classical Mediterranean civilizations; tropical Africa; and the medieval and Renaissance cultures of the emerging West. Required of all history majors. Satisfies GE, category D2 (World History and Civilization). Prerequisite: ENGL 101.

### HIST 202 DEVELOPMENT OF THE MODERN WORLD (3)

An introduction to modern and contemporary history from 1500 CE to the present. Course material includes the impact of world expansion on the Americas, Africa and Asia; the growth of nationalism and the national state; industrial, political, and social revolutions worldwide; the wars of the 20th century; and decolonization and the conclusion of the Cold War. Required of all history majors. Satisfies GE, category D2 (World History and Civilization). Prerequisite: ENGL 101.

### HIST 241 HISTORY OF THE AMERICAS TO INDEPENDENCE (3)

A comparison of the English, Spanish and Portuguese colonies in America, from the conquest to independence. Topics include: Native Americans, European background, colonial government, religion, economic policies, social relations, slavery, art and literature, independence movements and nation building. Satisfies GE, category D3. Prerequisite: ENGL 101.

### HIST 242 HISTORY OF THE AMERICAS SINCE INDEPENDENCE (3)

A comparison of the development of the United States after independence with that of Latin America. Topics include: colonial legacies, political leadership, expansion and conflict, regionalism, economic development, reform and revolution, church and state, race relations, education and inter-American relations. Satisfies GE, category D3.

### HIST 251 HISTORY OF THE UNITED STATES TO 1877 (3)

A general survey of the major developments in U.S. history from the European discovery and colonization of the Western Hemisphere through Reconstruction. Required of all history majors. Satisfies GE, category D3 (U.S. History), and the state code requirement in history. Prerequisite: ENGL 101.

### HIST 252 HISTORY OF THE UNITED STATES SINCE 1865 (3)

A general survey of the major developments in U.S. history from the end of Reconstruction to the present day. Satisfies GE, category D3 (U.S. History) and the state code requirement in history. Prerequisite: ENGL 101.

### HIST 304 HISTORY OF THE ARABS TO 1453 (4)

A study of the Arabic speaking people from the early trading centers of Qataban, Sheba, Petra and Palmyra through the development and spread of Islam to the period of Turkish domination of the Middle East. Particular attention will be devoted to religion, language and literature, mathematics and science.

**HIST 325 INTRODUCTION TO CALIFORNIA HISTORY (3)**

This is an overview of California history from the Pre-Columbian Period through the present. The first covers conflict and cultural exchange between American Indians, Spanish explorers and missionaries, Mexican nationals, and other newcomers from the eastern United States and the globe. The second half focuses on the economic, social, cultural and political developments in the Twentieth Century California.

**HIST 335 EARLY CHINA TO 1500 (4)**

This course is designed to introduce students to the intellectual, political, social and economic traditions that helped make the sixteenth century Chinese state the greatest bureaucratic empire in the world. From the great intellectual efflorescence of the "100 School" period to the far-ranging ocean voyages of the eunuch admiral Zheng He, the course will examine a broad spectrum of topics, including folk religion, gender roles, imperial politics, medicine, art, and literature, among others. The relationship between social, economic and political developments will be emphasized.

**HIST 338 EARLY JAPAN TO 1650 (4)**

This course is designed to introduce students to the intellectual, political, social and economic traditions that underlay the creation of the Japanese emperor system and the rise of warrior government. From the unique aristocratic culture of Heian Japan to the legendary conquests of Hideyoshi, the course will look at a broad range of topics, including religion, gender, politics, art, and philosophy. The course also examines the influence on Japan of Tang China and early modern Europe. The emphasis will be on the relationship between social, economic, political, and cultural forces.

**HIST 339 ANCIENT AND COLONIAL LATIN AMERICA (4)**

An inquiry into the indigenous cultures of Central and South America and an examination of Spanish, Portuguese and other European empires in America. Areas of study may include land, labor, religion, culture, slavery, race, gender, trade and economic development, art and literature, and resistance and revolt.

**HIST 342 MODERN LATIN AMERICA (4)**

A study of the major political, economic, social and cultural developments in Latin America since independence, with an emphasis on political movements in the 20th Century, including revolutions in Mexico, Guatemala, Cuba and Nicaragua, socialism in Chile, peronismo in Argentina, modernization in Brazil. The role of the United States in Latin America and modern Latin American art and literature will also be emphasized.

**HIST 348 RACE AND ETHNICITY IN LATIN AMERICA (4)**

The course introduces students to the complexities of race and ethnicity in Latin America. By tracing Latin American historical developments from colonialism through the twenty-first century, students explore the debates of what the nation is and who its citizens are. Students examine how Arabs, Jews, Japanese, Chinese, Blacks and the indigenous peoples have positioned themselves in Brazil, Argentina, Peru, Bolivia, Cuba, Mexico, Honduras, Colombia, and Haiti. As these Latin American countries struggle with political instability, as well as economic and social inequality, racial and ethnic questions have become increasingly important in these pluralistic and multiethnic societies.

**HIST 349 HISTORICAL THEMES (2-4)**

Studies of particular themes, issues and topics of special interest to general students as well as to majors.

**HIST 351 AMERICAN THOUGHT AND SOCIETY TO 1865 (4)**

An introduction to the major ideas, values, and beliefs operative in American history up to the Civil War. Topics include Puritan religion and culture, the revolutionary and constitutional debates, Transcendentalism, and slavery controversies.

**HIST 352 AMERICAN THOUGHT AND SOCIETY, 1865 TO THE PRESENT (4)**

An introduction to the major ideas, values, and beliefs operative in American history from the Civil War to the turn of the twenty-first century. Topics include the Social Gospel, pragmatism, socialism, the New Left, feminism, and conservative thought.

**HIST 370 HISTORY FORUM (1-4)**

A semester lecture series on a specific theme or topic presented by members of the department, other SSU faculty and guest speakers. May be audited. Open to the public.

**HIST 371 SPECIAL TOPICS AND THEMES IN EUROPEAN HISTORY (2-4)**

Studies of particular themes, issues, and topics of special interest pertaining to European History.

**HIST 372 SPECIAL TOPICS AND THEMES IN LATIN AMERICAN HISTORY (4)**

Studies of particular themes, issues and topics of special interest pertaining to Latin American history.

**HIST 375 SPECIAL TOPICS AND THEMES IN AMERICAN HISTORY (1-4)**

Studies of particular themes, issues, and topics of special interest pertaining to American History.

**HIST 376 SPECIAL TOPICS AND THEMES IN WORLD HISTORY (2-4)**

Studies of particular themes, issues, and topics of special interest pertaining to World History.

**HIST 377 SPECIAL TOPICS AND THEMES IN ASIAN AND PACIFIC HISTORY (4)**

Studies of particular themes, issues, and topics of special interest pertaining to Asian and Pacific History.

**HIST 380 20TH CENTURY WORLD (3)**

An exploration of the origins and development of 20th century ideas, institutions and systems in global perspective. Forces that have united and divided the contemporary world community are examined: imperialism, science, democracy, communism, nationalism, militarism, racism, cultural traditionalism and technological disparities. Satisfies upper-division GE, category D2 (World History and Civilization). Prerequisite: Juniors and seniors only.

**HIST 382 THE MEDITERRANEAN WORLD, 1400-1700 (4)**

A study of the Mediterranean region in the early modern era. The course considers economic, political, social, and cultural interaction in the region. Topics covered include the Ottoman Empire, Iberian expansion into North Africa, the Spanish reconquista, and naval warfare and piracy. History majors may consider this an upper-division European history elective.

**HIST 383 THE ATLANTIC WORLD 1450-1800 (4)**

Focusing on the development of institutions and spread of movements that connected Western Africa, Northern Europe, North America, the Caribbean and South America in a transatlantic context from 1500-1800, this course considers the topics of state formation, revolutions, empire, migration, religion, economy, race, class and gender in an Atlantic framework. Although the course emphasizes the early modern period, additional consideration is given to the issues facing the Atlantic community in the modern era.

**HIST 391 THE STUDY OF HISTORY (4)**

An examination of various philosophies and methodologies that have shaped historiography. Consideration is given to the relationship between the historian and the climate of opinion, to varying interpretations of historical events, to the place of history as a literary art, and to the techniques of historical research and writing.

**HIST 400 THE ROMAN REPUBLIC (4)**

A history of the Roman people from prehistory through Julius Caesar. The course covers political, economic, social and cultural change in Rome's transition from a village of mud huts to Mediterranean empire.

**HIST 401 THE ROMAN EMPIRE (4)**

A history of the Roman Empire from Octavian to 476 CE, covering political, economic, social and cultural change in Rome's transition from Mediterranean and European empire to the collapse of the empire in the West.

**HIST 405 ANGLO-SAXON ENGLAND (4)**

This course covers development and change in the political, economic, social and cultural institutions of Anglo-Saxon England from the settlement and conquest period (ca. 400 C.E.) to the Norman Conquest in 1066.

**HIST 406 THE CRUSADES (4)**

A study of the Crusades provides a microcosm of trends and assumptions in the Europe of the High Middle Ages. The course will focus on interrelationships of church, political structures, economy and military structures, with special attention on the First, Fourth and Sixth Crusades (1095-1270).

**HIST 408 THE EARLY MIDDLE AGES (4)**

The Early Middle Ages in Europe from 300-1000. The fusion of classical, Christian and Germanic tribal elements to develop medieval civilization. The course covers political, economic, social and cultural change from the time of Constantine to 1000.

**HIST 409 THE HIGH MIDDLE AGES (4)**

Medieval civilization from 1000-1400. The course includes the conflict of church and state, growth of national monarchies, the agricultural revolution and growth of commerce, the flowering of medieval culture, and the devastations of the 14th century.

**HIST 410 EARLY MODERN EUROPE, 1350-1789 (4)**

This course offers a comparative study of states and society in Western Europe from the Renaissance to the French Revolution. Topics include the persistence of the humanist tradition, European exploration and conquest, religious reform and ideology, the rise of science, and the crisis of culture and social relations. The emphasis in these centuries that shaped the modern world is social and cultural, but political and intellectual issues are also considered in depth.

**HIST 411 THE ENLIGHTENMENT TO WORLD WAR I (4)**

A political, social and cultural history that explores the origins of modern Europe. Topics include the Scientific Revolution, the Enlightenment, the French Revolution, the Industrial Revolution, the impact of Europe on the world, the growth of liberalism and socialism, and the causes of World War I.

**HIST 412 EUROPE SINCE 1914 (4)**

An overview of 20th century European history and culture. Topics include: the impact of World War I; the appeal of totalitarian systems: communism, fascism, Nazism; Europe's "suicide" during World War II; the reconstruction of Europe; the Cold War; economic integration; and Europe's cultural impact since 1914.

**HIST 414 GENDER AND SOCIETY IN EARLY MODERN EUROPE (4)**

This course examines the role of gender in early modern Europe from the late Middle Ages to the end of the eighteenth century. Topics include religion, law, labor, social and family relations. The course also considers the impact of major historical developments such as the Renaissance, Reformation, Scientific Revolution, industrialization, and the rise of the modern state on gender relations.

**HIST 415 EASTERN EUROPE, 1815-1918 (4)**

A survey of Eastern European history from the end of the Napoleonic Wars to World War I. Major topics include the collapse of the Austro-Hungarian, Russian, and Ottoman Empires, nationalism, industrialization, fin-de-siecle cultural ferment, and the origins and impact of the Great War.

**HIST 416 EASTERN EUROPE, 1918-1989 (4)**

A survey of Eastern Europe from the end of the World War I to the collapse of communism. Major topics include the creation of the new states, nationalism; socialism, the Holocaust, Stalinism, the anti-Soviet uprisings in Warsaw, Budepest, and Prague, and the revolutions of 1989.

**HIST 417 RUSSIAN EMPIRE (4)**

A survey of Russian history from the origins of Kievan Rus in the ninth century to the Russian Revolution of 1917. Major topics include the Mongols; the development of the Russian autocracy; Orthodoxy; serfdom; the exploration and colonization of Siberia, Central Asia, and Alaska; and Russia's alleged peculiarity vis-à-vis the West.

**HIST 418 FALL OF EUROPEAN COMMUNISM (4)**

A survey of Eastern European and Russian history from Prague Spring in 1968 to the election of Vladimir Putin in 2000. Major topics include the dissident movement; the economic failures of communism; the East German Stasi and the Soviet KGB; the political upheaval of 1989 and 1991; and the ethnic conflict in the Balkans.

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**HIST 419 SOVIET UNION (4)**

A survey of Soviet history from the Russian Revolution of 1917 to the collapse of communism in 1991. Major topics include the revolutionary upheaval of 1917; Soviet policies toward national minorities and religious groups; Stalinism; socialist realism; World War II; the "developed socialism" of the Khrushchev and Brezhnev years; the Cold War; and Gorbachev's glasnost and perestroika reforms.

#### **HIST 420 THE FRENCH REVOLUTION (4)**

A consideration of the causes, events, and results of a key event in French history. The course also examines conditions in eighteenth century France and the historiography of the French Revolution.

#### **HIST 422 IMPERIAL SPAIN (4)**

Examines Spain and the Spanish world from 1400 to 1700. Includes Spanish expansion and empire building worldwide, as well as the economic, political and social history of Spain itself.

#### **HIST 423 SPANISH CIVIL WAR (4)**

This course provides an overview of the political, economic, and social circumstances of Spain's late 19th and early 20th century, as well as a detailed examination of the war years and their immediate aftermath. It also examines the significance of the war within the larger context of European history.

#### **HIST 424 TOLERANCE AND INTOLERANCE IN EUROPE, 500-1500 (4)**

What are the roots of tolerance, and intolerance, in Western Europe? This course is a survey of the philosophical, ecclesiastical, legal, cultural, and social attitudes toward and treatment of minorities in Western Europe from the end of the Roman Empire forward.

#### **HIST 425 BRITAIN 55 BCE TO 1399 CE (4)**

A survey of the sources and development of political, economic, social and cultural institutions from the Roman invasion of Celtic Britain to the ouster of Richard II. Some topics include the merging of Celtic, Roman and Anglo-Saxon cultures, the development of local self-government and law, the effect of Christianization, Viking invasions and royal government, the rise of towns and commerce, the effects of the Norman invasion, transition from personal rule to centralized government, the growth of Parliament, the Hundred Years' War, the Black Death and the economic disruptions of the fourteenth century.

#### **HIST 426 BRITAIN AND IRELAND, 1399-1714 (4)**

This course considers the social, political, religious and cultural development of Britain and Ireland from the late Middle Ages to the beginning of empire and industrialization. Topics include the Tudor revolutions in government and religion, relations between kings and parliaments, the evolution of toleration, and ideas about rights and liberty. Special consideration is given to the interaction of the three kingdoms (England, Ireland and Scotland) in the formation of Great Britain and the role of that interaction in the emergence of the British Empire.

#### **HIST 428 MODERN BRITAIN, 1714 - PRESENT (4)**

The study of the evolution of British society from the beginning of the eighteenth century to the present. Major political, economic, social and cultural developments are covered including industrialization and the rise of the working class, the emergence of imperial Britain, the Irish Question, the rise of welfare state and the role of decolonization, diversity, and devolution in the emergence of contemporary Britain as well as its place in a united Europe.

#### **HIST 430 HISTORY OF THE MAYA (4)**

This course will study the development of complex society in the parts of Mesoamerica dominated by speakers of Maya languages. These peoples first appear in the archaeological record in the middle of the first millennium BCE and persist to the present. The course will include consideration of the experience of the Maya through the period of Spanish contact to the present but will focus on aspects of Maya culture in the Classic period, from about 100 BCE to 800 CE.

#### **HIST 432 SEMINAR IN U.S. ECONOMIC HISTORY (4)**

Economic development of the United States since the Revolution. Topics to be covered include capital formation and the growth of business concentration; distribution of national income; problems of agriculture; growth of the labor movement; patterns of inflation and depression; impact of international relationships on U.S. economic development. Prerequisite: ECON 201A or 201B or consent of the instructor. This course fulfills the History Major Core Senior Seminar requirement.

#### **HIST 433 HISTORY OF MEXICO (4)**

A study of the Mexican people from the early native cultures to the present, with particular emphasis on the Mexican Revolution of 1910 and the major political, social, economic and cultural developments of modern Mexico. Includes major Indian cultures, the Conquest, religion and the Catholic church, literary and artistic expressions, machismo and women, and relations between Mexico and the United States.

#### **HIST 435 HISTORY OF MODERN CHINA (4)**

Explores the profound changes that have taken place in China from around 1600 to the present, including the apogee and decline of the imperial system, the encroachments of the West, the failure of Republicanism, the rise and eventual victory of the Chinese communists, and the consequences of China's adoption of a market-based economy in the 1980s.

#### **HIST 438 MODERN JAPAN (4)**

Traces the development of Japanese society from earliest times to the present. While some attention will be given to early aristocratic culture and the emergence of the warrior elite, emphasis will be on the period after 1600, particularly the emergence of Japan as an international power after 1868 and economic success since World War II.

#### **HIST 445 TOPICS IN AMERICAN WOMEN'S HISTORY (4)**

Course will address the history of women in America from one of several topical or regional perspectives. Topics may include Law, Women, & Family in American History, Women & Work in American History, or Women in the American West. When the class is offered, prospective students should consult the departmental descriptions for the periods and topics to be covered.

#### **HIST 446 WOMEN IN AMERICAN HISTORY (4)**

A study of the status and role of women in America from the pre-colonial period to the present. Special attention will be given to the educational, labor, and political reforms of the nineteenth century, women's associations, and the various "waves" of women's rights and feminist activism.

#### **HIST 449 GENDER AND SEXUALITY IN LATIN AMERICA (4)**

This course examines the changing definitions, institutions, and behaviors related to gender, sexuality, and the formation of families in Latin America from indigenous civilizations to contemporary societies. The course explores how women handled the transition from European colonies to nation-states and how various Latin American men and women in the twentieth century were able to position themselves in "traditional" nation-states. The course concludes by evaluating the social, economic and political changes in Latin America and contemporary social movements.

#### **HIST 450 COLONIAL AMERICA (4)**

A study of the European derived societies and cultures in those parts of North America that later became the United States from the beginnings of European expansion until 1763. Topics may include European backgrounds, relations with native peoples, cultural mixing, labor systems, gender relations, and political, social, and economic characteristics and changes.

**HIST 451 THE AMERICAN REVOLUTION AND THE EARLY REPUBLIC (4)**

A study of the political, economic, and social institutions and conditions during the long period that included the War of American Independence; the contest between federalism and anti-federalism in the newly-independent United States before 1789; and the emergence of a paradoxical American nation notable for a devotion to chattel slavery and to liberty as well as for technological achievements represented by the Erie Canal.

**HIST 452 ANTEBELLUM AMERICA (4)**

A study of nineteenth-century American society and politics before the Civil War. Topics may include the market revolution, the commercialization of agriculture, territorial expansion and its implications for chattel slavery and Indian policies, the religious movements, reform movements, the emergence of the women's rights movement, and the lure of the West.

**HIST 454 CIVIL WAR AND RECONSTRUCTION (4)**

A study of the causes and consequences of the Civil War, the struggles of the Reconstruction era, and the transformation of American society and politics in the period between 1850 and the end of Reconstruction.

**HIST 456 THE EMERGENCE OF MODERN AMERICA (4)**

A study of the major intellectual, cultural, religious, and social developments in the late nineteenth and early twentieth-century United States. Explores how what materialized in this era--particularly the consumer revolution, professionalization, and secularization--created a modern American culture and a particular set of problems we still deal with today. This is a reading-intensive course that requires students to have a basic working knowledge of the period.

**HIST 457 AMERICA THROUGH DEPRESSION AND WAR (4)**

A study of the causes and consequences of the Great Depression, U.S. involvement in World War II, and the advent of the Cold War. Explores the extent to which the challenges of the first half of the 20th century reshaped the United States socially, politically, economically, and culturally, particularly in regard to education, race, ethnicity, gender, and international political participation.

**HIST 458 MODERN AMERICA SINCE WORLD WAR II (3-4)**

A study of political, social, economic, diplomatic, and cultural change at home and in international affairs as the United States took on a greater role as a global superpower after 1960. Topics may include the Vietnam War, civil rights, student protest, environmental issues, international regional military interventions, feminism, the end of the Cold War, the new conservatism of the 1980s, and the concerns of terrorism.

**HIST 468 BLACKS IN AMERICAN HISTORY (4)**

A study of African culture, social philosophy and political influences in the United States from the pre-Colonial period through the present day. Major emphasis will be placed on black political philosophies and strategies during the periods of Reconstruction, WWI and WWII, the civil revolts of the 1960s, and the contemporary period of political activism.

**HIST 469 RELIGION IN AMERICA (4)**

An overview of religious beliefs, institutions, and practices from 1630 to the present. Covers major trends in American religion as well as fringe movements, examining the central questions of church and state, religious freedom, and the impact of democracy, science, consumer culture, and professionalization on religious life in America.

**HIST 470 THE AMERICAN SOUTH (4)**

A regional history of the southeastern United States. The course examines the South from its Native American origins to its antebellum opulence, from the devastation of the Civil War to the development of the modern Sun Belt. An important sub-theme of the class is the journey of African Americans.

**HIST 471 THE AMERICAN WEST (4)**

A regional history of the trans-Mississippi west. Major political, social and economic events relating to the Western United States are explored.

**HIST 472 CALIFORNIA HISTORY I (4)**

Study of California history from the period of European contact through the early years of the 20th century. Special attention is given to the origins, means, and consequences of Spanish expansion into Alta California, to the emergence of Mexican California and to its accelerated Americanization after the Treaty of Guadalupe-Hidalgo. The closing weeks of the course will include attention to themes that, though rooted in the earlier period, continue to shape present-day California. Among those themes are water policies, immigrations, and the consequences of California's great size and of its location on the Pacific.

**HIST 473 CALIFORNIA HISTORY II (4)**

Develops a historical perspective on major political, economic and social issues from the early 20th century "invention of California" through depression, war and prosperity to the challenges of continuing growth and declining resources today.

**HIST 474 THE DARWIN WARS: SCIENCE AND RELIGION IN AMERICAN HISTORY (4)**

Covers the relationship between science and religion in American thought and culture from the early nineteenth century through the twentieth century. Natural theology, the impact of Darwin, the higher criticism, and culture wars are some of the topics covered in this course.

**HIST 477 AMERICAN SOCIAL HISTORY (3-4)**

Selected review of the social history of the American peoples. Topics may include social mobility, class structure, social movements, gender roles, race and ethnicity, generational differences, the "American Dream," and individualism.

**HIST 482 JUDAISM AND CHRISTIANITY IN THE FORMATIVE PERIOD (4)**

The course focuses on the history of Palestine, Judaism and Christianity in the period from the Babylonian Exile in 589 BCE to the Council of Nicea in 325 CE. This is the critical formative period for the development of Judaism and Christianity. The course devotes particular attention to the historiography of Jewish and Christian documents written during this period especially two sets of documents that have been discovered in the twentieth century and which have led to a reevaluation of many aspects of Judaism and Christianity: the Dead Sea Scrolls found at Qumran and the Gnostic materials found at Nag Hammadi in Egypt. This course fulfills the History major core senior seminar requirement.

**HIST 487 INTRODUCTION TO EGYPTIAN LANGUAGE AND CULTURE (4)**

This course is an introduction to the Egyptian language and its hieroglyphic and hieratic writing system. Students learn to read a story written in Middle Egyptian, the classical language of ancient Egypt. This is the version of the language that was the literary and administrative language from about 2250 to about 1350 BCE. The study of the language and writing systems is used to introduce students to related aspects of Egyptian culture and history. May be repeated for credit once.

**HIST 495 SPECIAL STUDIES (1-4)**

Individualized studies in historical topics, themes, periods and/or areas beyond the scope of the established curriculum. Open from 1 to 4 units as determined by the department faculty sponsor. Not to be used as a substitute for HIST 498 Senior Seminar. For additional information, please consult the comments on special studies, page 315).

**HIST 496 HISTORY JOURNAL (2)**

This class will cover all aspects of scholarly journal publication, including management, editing, setting up and implementing an anonymous review system, selection of manuscripts, layout, budgeting, production, sales, and distribution. Students will publish the department student history journal as the final result. May be repeated for credit. Cr/NC only.

**HIST 497 INTERNSHIP IN HISTORY (1-6)**

Field experience in city, county, state and federal agencies and with private business and community organizations. May be repeated three times for credit. Prerequisite: prior arrangement with instructor.

**HIST 498 SENIOR SEMINAR (4)**

Directed studies in a seminar setting on a particular topic or theme (please see Schedule of Classes for the specific topic selected by the instructor). Combines secondary reading and original research leading to the completion of a research project.

**HIST 499 HISTORY HONORS SEMINAR (4)**

Individualized studies for advanced undergraduates with at least a 3.50 GPA who want graduate-level academic experience and the honors designation at graduation. Students develop a critical research project in cooperation with a faculty advisor, present their findings, and write a critique of another research paper. Prerequisites: 3.50 GPA, completion of specific major courses, proficiency in a second language and permission of instructor and advisor. This course is not part of major requirements. Consent of department required.

**HIST 500 HISTORICAL METHODS (4)**

Workshop course providing practice in archival research, oral history, descriptive statistics, cultural material analysis and other historical techniques. Recommended for new graduate students, including ITDS.

**HIST 510 GRADUATE PRO-SEMINAR (4)**

Readings and projects on topics within a common frame of reference, as arranged by instructor and participating students.

**HIST 578 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. Cr/NC only.

**HIST 593 GRADUATE INTERNSHIP (2-4)**

Experience in professional history, typically in museums, historical societies, and other public history settings, as well as junior college internship programs. Students will produce a professional product, such as a curated exhibit; a research report; a course syllabus; or finding aid. Grade only.

**HIST 595 SPECIAL STUDIES (1-4)**

Individualized studies in historical topics, themes, periods and/or areas beyond the scope of the established curriculum. Prerequisites: graduate status and prior arrangement with faculty sponsor and graduate advisor.

**HIST 596 RESEARCH AND TEACHING ASSISTANT (1-2)**

Directed participation and experience in developing teaching methods, course organization and research techniques. Prerequisite: advanced graduate status and consent of instructor and graduate coordinator.

**HIST 597 GRADUATE SEMINAR: HISTORICAL THEMES AND ISSUES (3-4)**

Advanced studies and/or research projects relating to students' theses or field exam topics. Emphasis upon professional historical writing. Prerequisite: completion of 15 graduate course units and admission to candidacy. Non-majors only with permission of instructor.

**HIST 598 COMPREHENSIVE EXAMINATION READING AND RESEARCH (3-6)**

Directed reading and research activities. Open only to graduate students with classified standing in history who have selected the comprehensive examination option for the M.A. degree. Preferably taken for credit during the semester in which the comprehensive examinations are scheduled. Prerequisite: classified graduate standing in the history comprehensive option for the M.A. Should be taken for each of the two comprehensive examination fields for a total of 6 units.

**HIST 599 MASTERS DEGREE THESIS RESEARCH (6)**

Extensive individual research and writing project under the direction of the student's thesis committee chair. Preferably taken for credit during the semester in which the M.A. thesis is scheduled for submission in final form. Prerequisite: classified graduate standing in the history thesis option for the M.A. and an authorized Advancement to Candidacy form.

## Human Development (HD)

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### HD 318 HUMAN DEVELOPMENT: SEX AND THE LIFE CYCLE (3)

An examination of developmental and evolutionary aspects of human reproductive biology and behavior from fetal through adult stages. Sexual selection and life history perspectives on fetal sex differentiation, gender identity, sex role development, puberty and secondary sexual characteristics, and mate choice. Satisfies GE, category E (The Integrated Person). Crosslisted as ANTH 318. Prerequisite: for ANTH majors: ANTH 201; for non-majors: ANTH 201, BIOL 110 or BIOL 115 or consent of instructor.

### HD 391 SEMINAR IN HUMAN DEVELOPMENT (2)

This seminar introduces majors to the interdisciplinary study of human development. It covers major figures in life-span developmental, comparative cross-species, cross-cultural and multicultural, and class and gender perspectives. Open to human development majors. Prerequisite: Junior standing. Grade only.

### HD 490 SENIOR PROJECT (1)

A senior capstone course devoted to senior projects required of Human Development students. Prerequisite: Admission to the Human Development Major, graduating senior, and completion of HD 391.

### HD 495 SPECIAL STUDIES (1-4)

The Human Development major encourages independent study as preparation and practice for life-long self-directed learning. Students should formulate plans in consultation with a faculty member. Special forms for this purpose are available in the department office. These should be completed and filed during the add/drop period. Prerequisite: upper-division Human Development major or consent of instructor. Cr/NC only.

### HD 496 AGENCY INTERNSHIPS (1-4)

Agency Internship to allow students in Human Development to do supervised internships in a variety of educational and social service settings. Prerequisite: Admission to the Human Development Major and consent of instructor.

## Humanities (HUM)

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### HUM 200 WRITTEN AND ORAL ANALYSIS (3)

Students practice the techniques of critical reading and thinking, of expository writing, and of oral expression. They examine the principles of thinking, speaking, and writing, with a view to the multitude of purposes for which these activities are crucial. Satisfies GE, category A1 (Written and Oral Analysis). Prerequisites: completion of GE categories A2 and A3.

### HUM 301 WAR AND PEACE LECTURE SERIES (3)

Students attend the public War and Peace Lecture Series and meet in discussion groups weekly to address a broad range of issues relating to the problem of war and prospects for peace. Lecturers represent diverse disciplines ~ e.g., economics, physics, peace studies, political science, sociology ~ and institutions. Discussion sessions synthesize material presented in lectures and outside readings and elicit students' personal responses to the issues raised. Reading and writing assignments required. Satisfies GE, category C3 (Ethics and Values).

### HUM 395 LITERATURE, ARTS AND EDUCATION (1-4)

Students will work individually or in teams to present enrichment activities and curriculum to local schools in the Rancho-Cotati School District. Students may do this in conjunction with a current class they are taking or as an independent project.

### HUM 460 TEACHING ASSISTANT IN HUMANITIES (1-3)

Provides students experience in assisting an instructor in an Humanities course by doing course related research and tutoring.

### HUM 495 SPECIAL STUDIES (1-3)

Independent study designed in consultation with an instructor. Students must complete the standard SSU form. Prerequisite: consent of instructor.

## **Hutchins School of Liberal Studies (LIBS)**

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### **LIBS 100 THE CRAFT OF WRITING (2)**

A course designed to help students who are experiencing difficulties with writing. While the craft of writing will be emphasized (punctuation, sentence construction, word choice, paragraph and essay organization, etc.), the course will also address how the craft of writing can become the art of persuasion and self-expression.

### **LIBS 101 THE HUMAN ENIGMA (12)**

Drawing on materials about small-scale societies, ancient cultures and contemporary civilizations, this course concentrates, within a comparative framework, on the development of cultural values, the concept of human nature, the growth of self-awareness, and the emergence of ethical and political thought. Prerequisite: A passing score on the EPT.

### **LIBS 102 IN SEARCH OF SELF (12)**

This course focuses on the individual, exploring how personal history, unconscious processes, and political and historical environments shape the concept of the self. This course develops a fuller understanding of these influences through scientific investigation, historical exploration and creative expression, employing materials drawn from biology, psychology, sociology, literature, history, politics and the arts.

### **LIBS 201 EXPLORING THE UNKNOWN (12)**

An investigation of the meaning and limits of knowledge with respect to the nature of the mind and physical reality. These issues are pursued through several different but interrelated fields of study, including literature, art, philosophy, comparative religion and science. The course considers Newtonian and quantum mechanical theories of physical reality, the religions of various cultures, and the functions of myth. The term includes a section focusing on the nature of human creativity.

### **LIBS 202 CHALLENGE AND RESPONSE IN THE MODERN WORLD (12)**

An examination of modern accomplishments and problems that have derived from several sources: the 18th century mechanical models, the Scientific and Industrial Revolutions, and the rise of modern economic theories. Asking how it is possible in the 21st century to live a moral life, the course examines the rise of individualism, the tension between personal and social values, the problems of poverty and the distribution of wealth, and the multiple consequences of modern technology upon the human and natural environments.

### **LIBS 302 INTRODUCTION TO LIBERAL STUDIES (3)**

An interdisciplinary 'gateway course' examining the meaning of a liberal education, emphasizing seminar skills, oral and written communication, and introducing the Portfolio. It is taken with LIBS 304 or 308 in the first semester of upper-division study. (These are the prerequisites for all upper-division Hutchins courses.) Successful completion of LIBS 302 is required to continue in the Hutchins program. Students must earn a grade of C or higher to continue in Hutchins.

### **LIBS 304 WE HOLD THESE TRUTHS (3)**

The first course in a two-semester sequence, designed to examine fundamental beliefs, assumptions and "self-evident" truths that serve as the foundation for American culture and politics, and then to consider those truths in light of challenges provided by multicultural perspectives.

### **LIBS 305 HUTCHINS FORUM (1)**

There are two main objectives of the Hutchins Forum. One is to serve as a learning community among Track I students (majoring in Liberal Studies, not pre-credential). Every other week the Forum functions as a sort of "headquarters" for advising or "laboratory of ideas" to assist students on elaborating the meaning of a Liberal Studies education. And, if they are so inclined, to facilitate their focus on a project or to define their own career interests or academic concentrations. Secondly, in the intervening weeks, the Hutchins Forum also serves as a learning community for the entire Hutchins School. This is accomplished by inviting faculty, alumni and students to share their insights or research with the Hutchins community.

### **LIBS 307 LECTURE SERIES (2)**

Lecture series. Topics vary.

### **LIBS 308 THE PRACTICE OF CULTURE (3)**

The second course in a two-semester sequence, designed to raise critical questions regarding cultural practices in a variety of settings. Topics may include non-western cultures, cross cultural issues, popular culture, and global politics.

### **LIBS 312 SCHOOLS IN AMERICAN SOCIETY (3)**

Students will explore basic issues inside the American educational system while fulfilling the state-mandated classroom experience requirement for admission to the credential program.

### **LIBS 320A ELECTIVE SEMINAR CORE A (3)**

Courses under this core area focus on the relationship between the individual human societies. The moral and ethical underpinnings of our patterns of social interaction are investigated with special attention paid to how these affect race, gender, and class relations. Of particular importance to social scientists are questions concerning whether the goals of human dignity, political justice, economic opportunity, and cultural expression are being enhanced or destroyed by specific historical developments, cultural practices, economic arrangements, and political institutions. Examples of seminars in Core A: PostModernism, Quest for Democracy, and Conspiracy Theories. Prerequisite: LIBS 302 prior or concurrently or LIBS 202 prior.

### **LIBS 320B ELECTIVE SEMINAR CORE B (3)**

Included in this core area are courses that deal with science and technology and their relationship to the individual and society. Students build upon their understanding of the sciences and come to grips with some of the crucial issues posed by our culture's applications of science and technology. Students write on topics which address scientific aspects of social issues, the contribution science makes to understanding issues of personal concern, and science as a social endeavor. Examples of seminars in Core B: Health and Healing, Machine as Metaphor, Global Food Web, and the Future of Energy. Prerequisite: LIBS 302 prior or concurrently or LIBS 202 prior.

### **LIBS 320C ELECTIVE SEMINAR CORE C (3)**

Through the arts and humanities we explore what and why humans create. Courses focus on the broad range of experiences in novels, poetry, drama and other literary forms, the visual arts, languages, architecture, music, dance, the writings of philosophers and the thought and literature of the world's religions. Study in the arts and humanities explores the inner world of creativity and individual values as well as the questions about how we arrive at a sense of meaning and purpose, ethical behavior, and a sense of beauty and order in the world. Examples of seminars in Core C: Earth Art, African Art, Memoir, Countercultures, and Minorities in American Cinema. Prerequisite: LIBS 302 prior or concurrently or LIBS 202 prior.

**LIBS 320D ELECTIVE SEMINAR CORE D (3)**

Courses in this core area deal with such issues as the study of biology as it relates to psychology, consciousness and perceptions of reality, meaning-making as a necessary human achievement, and identity formation as it is understood in the light of developmental psychology. Examples of seminars in Core D: Madness and Civilization, Death and Dying, Personal Geographies, and Empathy. Prerequisite: LIBS 302 prior or concurrently or LIBS 202 prior.

**LIBS 321A ELECTIVE COURSE IN CORE A (3)**

Courses in this area satisfy seminar requirement.

**LIBS 321B ELECTIVE COURSE IN CORE B (3)**

Courses in this area satisfy seminar requirement.

**LIBS 321C ELECTIVE COURSE IN CORE C (3)**

Courses in this area satisfy seminar requirement.

**LIBS 321D ELECTIVE COURSE IN CORE D (3)**

Courses in this area satisfy seminar requirement.

**LIBS 327 LITERACY, LANGUAGE AND PEDAGOGY (3)**

This course for pre-credential multiple subject students looks at the importance of literacy and language arts in the contemporary world, including the value of writing and literature in the classroom, as well as the significance of literacy as a broader educational and social issue. Students will develop a pedagogy of grammar, examine the use of literature and the written word in the classroom, and create and teach a classroom grammar lesson.

**LIBS 330 THE CHILD IN QUESTION (3)**

A close inspection of child development and elementary school pedagogy, emphasizing relevant social and cultural factors as well as major theoretical views of physical, emotional and personality growth. Subjective views of childhood experience will be contrasted with observations. Readings from Erikson, Freud, Hall, Goodall and others.

**LIBS 336 SPECIAL TOPIC WORKSHOPS (1-4)**

Topics will vary from semester to semester. May be repeated for credit.

**LIBS 337 SPECIAL LITERARY PROJECT (2)**

Faculty proposed special projects. For students working on faculty-initiated research projects. May be repeated for credit.

**LIBS 338 SPECIAL ART PROJECT (2)**

Faculty proposed special projects. For students working on faculty-initiated research projects. May be repeated for credit.

**LIBS 339 SPECIAL DRAMA PROJECT (2)**

Faculty proposed special projects. For students working on faculty-initiated research projects. May be repeated for credit.

**LIBS 340 SPECIAL SCIENCE PROJECT (2)**

Faculty proposed special projects. For students working on faculty-initiated research projects. May be repeated for credit.

**LIBS 341 ZEPHYR PUBLICATION (1)**

In this course we will be putting together a Volume of Zephyr, the Hutchins Literary Journal. Students will create the thematic structure and recruit written and visual work from the entire Hutchins Community (including Lower- and Upper- Division students, faculty, staff, Degree Completion students, Masters students and alumni). Students will also make all decisions regarding selection and editing, as well as organization and layout. The semester will culminate with the publication and distribution of Zephyr and the organization of a public reading for the Hutchins community.

**LIBS 342 HUTCHINS COMMUNITY ART SHOW PREPARATION (1)**

This course will give students a forum to create a Hutchins Community Art Showing. During class time, students will choose the dates and venue for the art showing, secure the necessary venue, publicize the event, create a call for entries, process the entries, decide which entries will be shown, hang show, plan and conduct reception, take down show.

**LIBS 360 SPECIAL TOPIC WORKSHOPS (1-2)**

Topics will vary from semester to semester. May be repeated for credit. Cr/NC only.

**LIBS 361 HUTCHINS PEDAGOGY PROJECT (2)**

The Hutchins Pedagogy Project workshop will combine project-based learning, Web CT and in-class training to teach Hutchins students (future teachers) how to implement seminars and/or act as tutors in elementary, AVID, and high school classrooms. Hutchins students will use individual and small group work in addition to whole-class seminar discussions to increase critical thinking and collaboration skills of students in local Sonoma County classrooms.

**LIBS 370 SEMINAR: CREATIVE PROCESS (2)**

A series of exercises designed to give students fuller access to their capacities and to provide practice in putting those capacities to productive use ~ in the arts, in problem solving and in daily life.

**LIBS 371 SEMINAR: SELF-AWARENESS (2)**

Methods of exploring and expanding self-awareness vary from semester to semester, and may include such techniques as autobiography, intensive journal-keeping, Gestalt exercises, dream analysis and meditation.

**LIBS 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

Students volunteer for unpaid placements within the community approved by the coordinator of the Hutchins Internship/Field Experience Plan. These placements include work in social service, education and the media. Students participate in four meetings per semester focusing on work-related issues; they also prepare a short paper about their placement and keep a time log. Students may take up to 6 units in CIP, a maximum of 4 in any one semester. One unit is equivalent to 30 hours of volunteer work per semester. Units count as electives for graduation. They may not be applied to the Hutchins major requirement. For the university's CIP regulations, please see page 304. Cr/NC only.

**LIBS 396 FIELD STUDY (1-4)**

Field Study for juniors and seniors is a project conducted outside of the university classroom setting that is taken for credit/no credit. It may include work that is literally outside in the field, or other hands on experience (e.g., a research study). Field Study projects are co-designed by a student and a sponsoring faculty member; or a faculty member may design a project, with student participation solicited. A student consults with a faculty member on the project, develops a plan of study, including number of units, project outcomes, number of meetings with the faculty sponsor and deadline for completion. A Project Contract is submitted to Admissions after the beginning of the semester and before last day to add classes. Consent of instructor. Cr/NC only.

**LIBS 397 STUDY AWAY (1-4)**

Study Away for both juniors and seniors is an educational experience that occurs away from SSU that is taken for credit/no credit. This might include study in the U.S. or abroad in an exchange program or an independently designed project. Study Away projects are co-designed by a student and a sponsoring faculty member or committee, with the terms of study and the expected outcomes written in contract form. A written report is required for Study Away projects upon completion. It is suggested that you begin the planning process early in the semester before you will undertake Study Away. The student must also follow University policies for leaving campus for Study Away. Required forms and procedures are available in the International Studies office. These forms must accompany the Project Contract and the Project Form to be signed by the sponsoring faculty and the Hutchins Provost. Prerequisite: completion of LIBS 302.

**LIBS 399 STUDENT INSTRUCTED COURSE (1-2)**

The Hutchins faculty welcome proposals from students in the final stages of the major who, in consultation with a faculty advisor, would like to design and offer an interdisciplinary seminar on a topic of special interest to them. Guidelines for student-instructed courses are available in the Hutchins office. Students may count two student-instructed courses (Cr/NC only) as elective units in the Hutchins major. Cr/NC only. May be repeated once for credit.

**LIBS 402 SENIOR SYNTHESIS (4)**

A capstone course required for the Hutchins major. Drawing on the papers collected for his or her portfolio, the student prepares a major paper and a Senior Project synthesizing aspects of that individual's own intellectual development. Each student makes an oral presentation of his or her project at the end of the semester. Must be taken in the student's final semester in the major.

**LIBS 403 SENIOR SYNTHESIS - STUDY AWAY (4)**

A capstone course required for the Hutchins major. Drawing on the papers collected for his or her portfolio, the student prepares a major paper synthesizing aspects of that individual's own intellectual development. This is done in a study away situation. Also available for students choosing a minor in Hutchins.

**LIBS 410 INDEPENDENT STUDY (1-4)**

Independent Study for seniors is an individualized program of study taken for a letter grade with a Hutchins faculty sponsor who is willing to supervise it. A student consults with a faculty member on a topic, develops a plan of study, including number of units, project outcomes, number of meetings with the faculty and deadline for completion. A Project Contract is submitted to Admissions after the beginning of the semester and before the last day to add classes. May be repeated for credit. Prerequisites: LIBS 302 and consent of instructor.

**LIBS 411A SERVICE LEARNING: YOUTH ISSUES (3)**

SSU students taking this course will go to local elementary and secondary schools and conduct seminar discussions that create a learning community.

**LIBS 420A ELECTIVE SEMINAR CORE A (3)**

Courses under this core area take as their focus the relationship between the individual and all kinds of human groups. The moral and ethical underpinnings of our patterns of social interaction are investigated with special attention paid to how these do and should affect issues such as race, gender, and class. Of particular importance to social scientists are questions concerning whether the goals of human dignity, political justice, economic opportunity, and cultural expression are being enhanced or destroyed by specific historical developments, cultural practices, economic arrangements, or political institutions.

**LIBS 420B ELECTIVE SEMINAR CORE B (3)**

Included in this core area are courses that deal with science and technology and their relationship to the individual and society. In today's world, any well-educated person should understand, at least at a general level, both the methods of science and important information which has been discovered through their applications. Here students build upon their understanding of the sciences and come to grips with some of the crucial issues posed by our culture's applications of science and technology. Students write on topics which address the idea of the material world: scientific aspects of social issues, the contribution science has made to your understanding of an issue of personal concern, your sense of science as a social endeavor.

**LIBS 420C ELECTIVE SEMINAR CORE C (3)**

Through the arts and humanities we explore what and why humans create. These fields include the broad range of experiences in literature, epics, poetry, drama and other literary forms, the visual arts, languages, architecture, music, dance, the writings of philosophers and the thought and literature of the world's religions. Study in the arts and humanities explores the inner world of creativity and individual values as well as the questions about how we arrive at a sense of meaning and purpose, ethical behavior, and a sense of beauty and order in the world.

**LIBS 420D ELECTIVE SEMINAR CORE D (3)**

What one endorses as really "real" is a result of many factors, some of them psychological, some biological, some philosophical, some social, and so forth. Courses in this core area will deal with such issues as the study of biology as it relates to psychology, consciousness as it affects and is affected by perceptions of reality, meaning-making as a necessary human achievement, and identity formation as it is understood in the light of developmental psychology and the nature-nurture controversy. You will have the opportunity to formulate your own thoughts about the status of human consciousness and reality and include that formulation in this section.

**LIBS 480 SEMINAR FACILITATION (1-3)**

This course provides students with an opportunity to enhance their facilitation skills through serving as a seminar leader in large lecture/discussion courses. Requires consent of course instructor.

**LIBS 497 MODERN MEDIA DIALOGUE SERIES (1)**

The Modern Media Dialogue Series will provide students the opportunity to learn about the many aspects and consequences of our media age, from journalism and censorship to new forms of communication and information. Students will participate in a weekly dialogue with an invited guest and community members to deepen their understanding of modern media forms and practice.

**LIBS 499 INTERNSHIP (1-5)**

All students develop an internship working outside the classroom. Students also prepare a portfolio project based upon a larger topic implicit in their internship. They participate with other interns in an internship class once a week to discuss their internship experience and issues related to the larger society. Grade only.

**LIBS 595 SPECIAL STUDIES (1-4)**

Individualized studies in areas beyond the scope of the established curriculum.

## **Interdisciplinary Studies (ITDS)**

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### **ITDS 200 CALIFORNIA CULTURAL ANALYSIS (3)**

Within the context of readings related to California history and culture and their role in shaping contemporary California life, students practice the techniques of expository writing, oral expression, and reading and thinking critically. Satisfies GE Category A1. Prerequisites: completion of GE Categories A2 and A3.

### **ITDS 280 INTRODUCTION TO CALIFORNIA CULTURE STUDIES (3)**

Introduction to California culture studies and its multi-ethnic, interdisciplinary and multi-disciplinary perspectives, tasks, and methods. Course includes the study of a variety of California regionalisms and a range of topics from California geology to California philosophy and art. Students do fieldwork and take field trips to sites of historical and cultural interest (Jack London Park, Angel Island, Fort Ross, San Francisco Mission District, State Capitol, Steinbeck County). Fulfills GE requirement in C4.

### **ITDS 297 SELECTED TOPICS (1-4)**

Exploration of basic human problems. Resource persons from various disciplines will participate. Please see the Schedule of Classes for areas to be emphasized. May be repeated for credit.

### **ITDS 300 CALIFORNIA CULTURAL STUDIES FACULTY FORUM (1-3)**

California cultural studies faculty, students, and guests present topics for discussion on on-going research and study. Cr/NC may be repeated for credit up to 3 units. Prerequisite: major or minor in California cultural studies program, upper-division standing in programs affiliated with California cultural studies, or permission of the California cultural studies director.

### **ITDS 301 LECTURE SERIES (1-3)**

A public lecture series on topics of general interest. Two units requires regular attendance and a final paper. Students who take three units additionally meet once a week in discussion groups and do further reading of selected texts.

### **ITDS 302 TOPICS AND THEMES IN CALIFORNIA CULTURE STUDIES (3)**

Course includes California Regionalism, San Francisco, Representing Los Angeles, California and the Environmental Imagination.

### **ITDS 345 DIRECTED READING AND WRITING TUTORIALS (1-4)**

Directed studies of California themes and topics within the context of small group tutorials. Students develop individual reading projects and complete a capstone project or thesis. Prerequisites: major or minor status, participation in California cultural studies? integrated GE program, or consent of California cultural studies coordinator. Note: ITDS 345 may be taken for 1-2 units as part of the integrated GE program.

### **ITDS 395 COMMUNITY INVOLVEMENT PROGRAM (1-3)**

An experience involving the application of methods and theories to community service work. Requirements: approval of a relevant project, a minimum of thirty (30) hours per unit of credit in the actual working situation, regular consultation with a faculty sponsor, and a paper. Prerequisite major or minor standing and permission of program director.

### **ITDS 397 SELECTED TOPICS (1-4)**

Exploration of basic human problems. Resource persons from various disciplines will participate. Please see the Schedule of Classes for areas to be emphasized. May be repeated for credit.

### **ITDS 444 THEORY AND RESEARCH METHODS (4)**

Introduction to theory, method and research strategies associated with regional cultural studies across a range of disciplines. Students engage in fieldwork and institutional projects (preservation, restoration, cultural resource development, collection, analysis and description of cultural artifacts and historical preservation).

### **ITDS 486 INTERNSHIP IN CALIFORNIA CULTURAL STUDIES (1-4)**

Students apply California cultural studies theory and practice as interns with public and private agencies, corporations, and institutions. Internships require the approval of California cultural studies faculty sponsor and director; a minimum of 45 hours of work per unit per semester. Includes regular consultation and evaluation by the faculty sponsor. Cr/NC only. May be repeated for credit.

### **ITDS 495 SPECIAL STUDIES (1-4)**

Prerequisite: approved status as a special major or major in interdisciplinary studies.

### **ITDS 496 SR PROJECT IN CALIFORNIA CULTURAL STUDIES (1-3)**

Directed Studies in seminar and tutorial settings on topics selected by individual students. Combines secondary reading and original research leading to the completion of a capstone research thesis or project. Project is graded by supervising CCS faculty and is presented at the Faculty Forum.

### **ITDS 497 SPECIAL TOPICS (1-4)**

Exploration of basic human issues. Resource persons from various disciplines will participate. Please see the Schedule of Classes for areas to be emphasized. May be repeated for credit.

### **ITDS 498 INTERNSHIP (1-4)**

An internship is a supervised program of work and study in a governmental, community service, technical, business, or educational setting. ITDS 498 (or 598) is designed for students in the Special Major/Interdisciplinary Studies program or in one of the faculty initiated special majors. Forty-five hours of on-the-job work are required for each unit of credit. For grade or Cr/NC, as determined by the student's program.

### **ITDS 499 SENIOR PROJECT (3)**

A senior paper or project to be prepared under the supervision of the student's Faculty Committee. The senior paper or project should present the synthesis of the student's interdisciplinary program of study. The paper or project will be graded by the student's Faculty Committee and will be presented orally to the ITDS Committee at the completion of the student's senior year.

### **ITDS 578 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. Cr/NC only.

### **ITDS 595 SPECIAL STUDIES (1-4)**

Prerequisite: approved status as a classified major in interdisciplinary studies.

### **ITDS 598 INTERNSHIP (1-4)**

An internship is a supervised program of work and study in a governmental, community service, technical, business, or educational setting. ITDS 498 (or 598) is designed for students in the Special Major/Interdisciplinary Studies program or in one of the faculty initiated special majors. Forty-five hours of on-the-job work are required for each unit of credit. For grade or Cr/NC, as determined by the student's program.

**ITDS 599 MASTER'S PROJECT (6)**

For MA action for a viable future students only. Design and implementation of culminating project and written component. Prerequisites: completion of individual study plan coursework and consent of student's graduate committee chair.

**ITDS 599A THESIS AND ITDS RESEARCH (2-4)****ITDS 599B THESIS AND ITDS RESEARCH (2-4)****Jewish Studies (JWST)**

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**JWST 200 INTRODUCTION TO JEWISH STUDIES (3)**

Introduction to Jewish Studies is an interdisciplinary survey course that introduces students to the culture, literature, history, philosophy, religion, and academic traditions of Jewish people from antiquity to the present. In this course, we will analyze how Jewish people have deployed a wide range of intellectual discourse to gain an understanding of the meaning of their identify as Jews. The course will also provide a historical overview of the Jewish Diaspora, from the Middle East to Africa to Europe to the America. The readings and class discussions will divide into three parts covering the ancient, medieval, and modern periods.

**JWST 250 INTRODUCTION TO JUDAISM (4)**

A survey of Jewish religious traditions from the Bible through the present day. Evolution of major religious ideas through classical texts.

**JWST 251 TOPICS IN JEWISH BIBLICAL STUDIES (3-4)**

Introduction to the academic study of the Hebrew Bible (Old Testament) through a variety of scholarly approaches to the Bible, including historical and literary analysis. Emphasis is on developing skills in critical thinking, reading, and writing about the Bible. Students can repeat course for credit; topics will vary per semester.

**JWST 341 TOPICS IN JEWISH HISTORY: JUDAISM AND CHRISTIANITY OF THE GRECO-ROMAN PERIOD (4)****JWST 350 JEWISH RELIGION AND BIBLICAL VALUES (3)**

This course explores the ideas - religious and political - and texts that have shaped Jewish thought and practiced from its formation to the present.

## **Kinesiology (KIN)**

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### **KIN 101 PHYSICAL EDUCATION ACTIVITIES (1-2)**

Activities classes. Classes are conducted in the following activities: aquatics (swimming, physical conditioning swimming, water polo and scuba). Individual sports (adapted activities, martial arts, tennis, indoor rock climbing). Fitness (aerobics, conditioning, pilates, jogging/running and weight training). Dance (recreational, yoga). Outdoor activities. Team sports (basketball, soccer, softball, volleyball). Course offerings vary from semester to semester. Most sections meet twice weekly, with some sections meeting at specially arranged times according to the nature of the activity. Students may take, for credit, as many different 101 classes as desired. The same 101 activity class may be repeated once for credit. Cr/NC only.

### **KIN 120 MOTOR SKILL DEVELOPMENT IN PUBLIC SCHOOLS (2)**

Prepares students to teach motor skills to school-aged children. Topics including motor development, motor learning and instructional design as related to motor skill acquisition are introduced. Students task analyze a variety of motor activities, plan developmentally appropriate lessons, and teach peer and public school-aged children in local schools.

### **KIN 201 FOUNDATIONS OF KINESIOLOGY (3)**

This course is designed to orient students to kinesiology as a field of study. Students will be exposed to multiple disciplines within kinesiology. By engaging in discussions, activities, and field observations, students will explore and become prepared to select a career path within the field.

### **KIN 217 PERSONAL FITNESS AND WELLNESS (3)**

Designed to introduce the concepts and practices involved in creating a personal life-long fitness and wellness program. General health topics will be emphasized, specifically cardiovascular fitness, nutrition, stress management, disease prevention, and current health trends and topics. Students will develop personal action plans for enhancing personal health and well-being. Satisfies GE Area E.

### **KIN 230 INTRODUCTION TO FIELD EXPERIENCE (1-2)**

Provides lower division students an opportunity to sample work experiences in a variety of settings in physical education, adapted physical education, athletic training, or exercise science. Thirty hours of supervised field work for each unit of credit. This course does not meet the field work requirement in the kinesiology major concentrations. Prerequisites: Overall 2.0 GPA and departmental approval.

### **KIN 240 FIRST AID AND CPR (1)**

Study of the basic principles and practical applications of first aid and C.P.R. techniques required by a first-aider to provide initial emergency care necessary to sustain life and minimize consequences of injuries or sudden illness until qualified medical personnel can arrive.

### **KIN 300 ANALYSIS OF MOTOR PERFORMANCE (1-2)**

Lecture, activity laboratory. A series of 1-unit courses. Each course is designed to provide students with an understanding of the mechanics of the neuromuscular skills and functional application of the activities presented within the course. In addition students will be involved in task analyzing and teaching skills/activities contained within each course.

### **KIN 301 HISTORY AND PHILOSOPHY OF HUMAN MOVEMENT (4)**

An introduction to significant historical and philosophical considerations in the development of human movement. Contemporary philosophical issues as well as active physical participation with an experiential emphasis will be studied. Prerequisite: ENGL 101, upper-division standing and consent of instructor for nonkinesiology majors.

### **KIN 305 PSYCHOLOGICAL BASES OF HUMAN MOVEMENT (4)**

Introduction to psychological factors influencing learning and performing motor skills and the psycho-social influences of sport, exercise and physical activity on the developing individual. Emphasis will be on the application of current motor learning, sport and exercise psychology theories on such topics as learning, motivation, goal setting, stress, anxiety, group dynamics, leadership, moral development, and exercise adherence. Prerequisite: ENGL 101, WEPT, Upper Division standing, and consent of instructor for non-Kinesiology majors.

### **KIN 307 COMPUTER APPLICATIONS IN PHYSICAL EDUCATION (3)**

Provides students with information on, training in, and experiences with various information technology methods and applications related to Physical Education. Two hours of lecture and two hours of laboratory activity per week. Prerequisites: Consent of instructor.

### **KIN 311 SELECTED TOPICS (1-4)**

Selected upper-division courses that are taught on a one-time basis.

### **KIN 315 SOCIOLOGY OF SPORT (3)**

Examines and utilizes basic sociological concepts and demonstrates their manifestations in the teaching of physical education and sports. Prerequisite: ENGL 101. Priority given to Kinesiology majors.

### **KIN 316 WOMEN IN SPORT: ISSUES, IMAGES, AND IDENTITIES (3)**

This course is designed to introduce students to an overview of issues, images and identities of women participating at various levels of sport in the United States. Attention will be given to the historical, social, political, and economic contexts that have influenced the American woman's experiences in sport. Prerequisites: Junior standing or with consent of instructor.

### **KIN 320 CURRICULUM, PEDAGOGY AND ASSESSMENT (3)**

This course is designed to explore different styles of teaching, management strategies, and assessment techniques used in physical education. Effective teaching characteristics will be discussed and opportunities given for students to put these into practice. Prerequisite: KIN 300 (3 courses) or consent of instructor.

### **KIN 325 INTRODUCTION TO ADAPTED PHYSICAL EDUCATION (3)**

An introduction to the scope, basic concepts and teaching methods of adapted physical education; a study of selected disabilities, with a primary focus on implications for physical education. Course includes 18 hours of practical experience in the field.

### **KIN 330A MEASUREMENT AND EVALUATION (1)**

A survey of descriptive statistics. Includes measures of central tendency, variability, scale scores, correlation and graphing with applications in kinesiology. Meets first half of the semester. Required for all kinesiology majors. Prerequisite: GE math.

### **KIN 340 EMERGENCY RESPONSE (3)**

Study of the principles and practical applications of advanced first aid techniques required to provide the initial emergency care necessary to sustain life and to maintain life support until the victims of accidents or sudden illness are cared for by qualified medical personnel.

### **KIN 342 PRINCIPLES OF MUSCULOSKELETAL INJURIES (3)**

Lecture, laboratory. Designed to show students the proper methods of recognition, evaluation, and treatment of musculoskeletal injuries to the upper and lower extremities. Comprehension of anatomy, mechanism-of-injury, and pathology are stressed. Fee of \$10 required for this course. Prerequisite: BIOL 220.

**KIN 350 BIOMECHANICS (4)**

Lecture, laboratory. Presents the quantitative and qualitative analysis of human movement and the anatomic concepts needed for understanding human movement in relation to mechanical effects such as application of force in relation to center of mass, displacement, velocity, acceleration of bodies, and buoyancy. Emphasis is on understanding and application of principles to any movement pattern. Prerequisites: BIOL 220 and GE math.

**KIN 360 PHYSIOLOGY OF EXERCISE (4)**

Lecture, laboratory. Study of the acute and chronic effects of human activity and exercise. Laboratory and field experiences in selected areas, including exercise metabolism, skeletal muscle and cardiopulmonary physiology, body composition estimation, and nutrition as they pertain to clinical, fitness and sports settings. Prerequisites: GE math; BIOL 115 and BIOL 224.

**KIN 371 INTERCOLLEGIATE BASEBALL, MEN (2)**

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

**KIN 372 INTERCOLLEGIATE BASKETBALL, MEN (2)**

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

**KIN 373 INTERCOLLEGIATE CROSS COUNTRY, MEN (2)**

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

**KIN 374 INTERCOLLEGIATE FOOTBALL, MEN (2)**

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

**KIN 375 INTERCOLLEGIATE SOCCER, MEN (2)**

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

**KIN 376 INTERCOLLEGIATE TENNIS, MEN (2)**

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

**KIN 377 INTERCOLLEGIATE TRACK AND FIELD, MEN (2)**

Activities include: soccer, tennis, basketball and baseball. May be repeated for credit.

**KIN 378 INTERCOLLEGIATE GOLF - MEN (2)**

Activities include: soccer, tennis, basketball, baseball, and golf. May be repeated for credit.

**KIN 381 INTERCOLLEGIATE BASKETBALL, WOMEN (2)**

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

**KIN 382 INTERCOLLEGIATE CROSS COUNTRY, WOMEN (2)**

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

**KIN 383 INTERCOLLEGIATE SOCCER, WOMEN (2)**

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

**KIN 384 INTERCOLLEGIATE SOFTBALL, WOMEN (2)**

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

**KIN 385 INTERCOLLEGIATE TENNIS, WOMEN (2)**

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

**KIN 386 INTERCOLLEGIATE GOLF, WOMEN (2)**

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

**KIN 387 INTERCOLLEGIATE VOLLEYBALL, WOMEN (2)**

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

**KIN 388 INTERCOLLEGIATE WOMEN'S WATER POLO (2)**

Activities include: cross country, golf, soccer, volleyball, tennis, waterpolo, basketball and softball. May be repeated for credit.

**KIN 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

Provides majors and non-majors the opportunity to gain volunteer experience working with individuals with disabilities in designated on-campus and community placements involving physical activity. Thirty hours of verified, supervised work and scheduled meetings with the instructor are required for each unit of credit. Requirements include a daily journal and portfolio. Prerequisite: permission of instructor.

**KIN 400 ELEMENTARY SCHOOL PHYSICAL EDUCATION (3)**

An introduction to and practice in applying the concepts and principles of developmentally appropriate physical education for children. Prerequisite: upper-division majors in kinesiology or multiple-subject credential candidates or by consent of instructor.

**KIN 404 THEORY OF COACHING (2)**

A survey of issues encountered by coaches in all sports. Topics will include, but not be limited to communication with players, colleagues and administration, ethical issues and responsibilities, coaching philosophies, relations with media and community, time management, coach and athlete motivation, mental training skills and equipment and facilities management. Prerequisite: ENGL 101, Upper Division standing, and consent of instructor for non-Kinesiology majors.

**KIN 410 LIFESPAN MOTOR DEVELOPMENT (3)**

Survey of the development of perceptual-motor function from birth through aging, with emphasis on gross motor performance.

**KIN 425 SEMINAR IN ADAPTED PHYSICAL EDUC (3)**

Exploration and discussion of current research and professional issues in the field of adapted physical activity. Prerequisite: KIN 325 or equivalent. Corequisite: 1 unit KIN 430C.

**KIN 426 INDIVIDUALIZED ASSESSMENT AND PROGRAM DESIGN (4)**

Selection, administration and interpretation of motor assessment instruments. Planning and developing appropriate activities and programs to meet individual needs for children and adults with disabilities. Prerequisites: KIN 325, 330A, and 410 or consent of instructor.

**KIN 427 INDIVIDUALS WITH DISABILITIES IN EDUCATIONAL AND RECREATIONAL SETTINGS (3)**

To explore the role of psychosocial context in the design and implementation of effective learning environments for youth and adults with disabilities, using service-learning pedagogy.

**KIN 430A FIELD EXPERIENCE IN PHYSICAL EDUCATION (1-3)**

Provides upper-division kinesiology majors experiences in teaching in K-12 public or private school setting. Course requirements include a work journal, development of a personal portfolio, and verification of completion by immediate supervisor. Prerequisites: completion of 10 units in physical education concentration related to specific field experience; C average in major and support courses.

**KIN 430C FIELD EXPERIENCE IN ADAPTED PHYSICAL EDUCATION (1-3)**

Provides upper-division kinesiology majors specializing in adapted physical education an opportunity to work with individuals with disabilities in school or other settings. Course requirements include a daily journal, development of a personal portfolio, and verification of completion by immediate supervisor. Prerequisites: KIN 325; C average in major and support courses.

**KIN 430D FIELD EXPERIENCE IN EXERCISE SCIENCE (1-3)**

Provides qualified upper-division students an opportunity to gain experience in either applied exercise physiology, biomechanics, or physical therapy. Course requirements include the development of a personal portfolio, a log of completed hours, a daily journal describing experiences, and verification of completion by immediate supervisor. Prerequisites: completion of a minimum of three support and/or core courses related to the field experience; C average in major and support courses.

**KIN 430E FIELD EXPERIENCE IN LIFETIME FITNESS (1-3)**

Provide qualified upper-division students an opportunity to gain experience private and public fitness settings. Course requirements include, but are not limited to a daily journal describing experiences, a log of completed hours, and verification of completion by an immediate supervisor. Prerequisites: completion of a minimum of three support courses and/or core courses related to the field experience, C average in major and support courses.

**KIN 442 MUSCULOSKELETAL EVALUATION, TRAINING AND TREATMENT (4)**

Lecture, laboratory. Students learn the HIPS technique for evaluating musculoskeletal conditions and injuries. The prevention of musculoskeletal injuries and proper disposition of the patient will be stressed. The theoretical basis of rehabilitation and the physics/mechanics of therapeutic modalities, as well as common musculoskeletal injuries to the axial skeleton will be studied. Prerequisite: KIN 342.

**KIN 446 EXERCISE INSTRUCTION (3)**

This course provides each student with practical learning experiences designed to develop the skills needed to be a competent exercise instructor/leader. The course allows students to put into practice their knowledge of exercise from their previous coursework in biomechanics, exercise physical and conditioning for performance and health. Students will be involved in group-centered instruction, field observation, laboratory experiences, and skill execution practicals. Prerequisites: KIN 350 and KIN 360.

**KIN 460 CONDITIONING FOR PERFORMANCE AND HEALTH (3)**

A review of methods for the conditioning of a broad range of people from exercising adults through competitive athletes. Emphasis during the first half of the semester will be on topics related to adult fitness, including cardiorespiratory fitness, resistive training, flexibility, weight management, and exercise for special populations. During the second half of the semester topics related to athletes will include endurance training, training for strength and power, nutritional considerations for athletes, and the use of various putative ergogenic aids. Prerequisite: KIN 360.

**KIN 495A SPECIAL STUDIES IN PHYSICAL EDUCATION (1-4)**

Includes completion of a project designed to meet a specialized advanced study need. The student should have prerequisite skills. The project should be planned and described in writing, in consultation with and with the consent of the faculty advisor. There are four areas of study: 495A Special Studies in Physical Education; 495C Special Studies in Adapted PE; 495D Special Studies in Exercise Science; and 495E Special Studies in Lifetime Fitness.

**KIN 495C SPECIAL STUDIES IN ADAPTED PHYSICAL EDUCATION (1-4)**

Includes completion of a project designed to meet a specialized advanced study need. The student should have prerequisite skills. The project should be planned and described in writing, in consultation with and with the consent of the faculty advisor. There are four areas of study: 495A Special Studies in Physical Education; 495C Special Studies in Adapted PE; 495D Special Studies in Exercise Science; and 495E Special Studies in Lifetime Fitness.

**KIN 495D SPECIAL STUDIES: EXERCISE SCIENCE (1-4)**

Includes completion of a project designed to meet a specialized advanced study need. The student should have prerequisite skills. The project should be planned and described in writing, in consultation with and with the consent of the faculty advisor. There are four areas of study: 495A Special Studies in Physical Education; 495C Special Studies in Adapted PE; 495D Special Studies in Exercise Science; and 495E Special Studies in Lifetime Fitness.

**KIN 495E SPECIAL STUDIES: LIFETIME FITNESS (1-4)**

Includes completion of a project designed to meet a specialized advanced study need. The student should have prerequisite skills. The project should be planned and described in writing, in consultation with and with the consent of the faculty advisor. There are four areas of study: 495A Special Studies in Physical Education; 495C Special Studies in Adapted PE; 495D Special Studies in Exercise Science; and 495E Special Studies in Lifetime Fitness.

**KIN 497 SELECTED TOPICS IN KINESIOLOGY (1-4)**

A single topic or set of related topics not ordinarily covered by the kinesiology major curriculum. May be repeated for credit with a different topic.

**KIN 500 INTRODUCTION TO SCHOLARLY INQUIRY IN KINESIOLOGY (2)**

This course is designed to prepare graduate students in Kinesiology to formulate and carry out a research project as part of his/her M.S. degree. Both theoretical and practical aspects of research will be included: examination of research paradigms, critical review of literature, effective design of a study, concepts of statistical and qualitative analysis of data, and the use of the library and computers as research tools. Prerequisite: KIN 330A or a course in descriptive statistics; an introductory computer course; and graduate standing.

**KIN 505 SEMINAR IN PSYCHOLOGICAL BASES OF HUMAN MOVEMENT (3)**

A critical review of current literature regarding the social and psychological factors involved in participation in sport, exercise and physical activity on individuals and group over the lifespan. Prerequisite: KIN 305 and KIN 315 or equivalents.

**KIN 520 PEDAGOGICAL METHODS (3)**

This course will examine instructional theories and models of teaching while focusing on practical applications that can lead to improvement of teaching physical education. The teaching of physical education will be analyzed in context with various teaching approaches, systematic observation techniques, principles of supervision, and will endorse a "theory into practice" approach to teacher effectiveness. Prerequisite: KIN 320 or its equivalent.

**KIN 521 CURRICULUM DESIGN AND ANALYSIS IN PHYSICAL EDUCATION (3)**

Intensive study, evaluation, and application of current developments in curriculum theory and practice for public school Physical Education. Includes review of literature related to curriculum development, review of professional standards, examination of curricula models, leading to the design of an innovative physical education curriculum plan. Prerequisite: KIN 520 Pedagogical Methods or its equivalent.

**KIN 522 RESEARCH AND ISSUES IN PHYSICAL EDUCATION TEACHER EDUCATION (3)**

The central focus of this course is to introduce students to literature and research on teacher preparation, effective teaching, and research on effective schools. This includes an understanding of the research questions pursued, the methodologies employed, and the results generated. Prerequisite: KIN 520 Pedagogical Methods or its equivalent.

**KIN 525 INDIVIDUALIZED MOVEMENT PROGRAMS FOR REHABILITATION EDUCATION (3)**

The student will learn how to formulate individualized exercise programs for rehabilitation/development of fitness skills in people with orthopedic injuries, chronic diseases, and disabilities. This course will take both a medical and functional point-of-view in dealing with development/return of quality-of-life skills, as well as advanced athletic skills. Prerequisites: Human Anatomy/Human Physiology/Athletic Injuries/Adaptive P.E.

**KIN 550 SEMINAR IN BIOMECHANICS (2)**

This course uses topical published research articles to discuss the quantitative and quantitative analysis of human movement and their application for Kinesiology professionals. Topics will vary, however, the underlying objective will be to understand aspects of the research presented in these articles including: appropriateness of research design, methodology, statistical methods, analysis techniques and limitations of studies. Prerequisite: KIN 350 or equivalent.

**KIN 560 ADVANCED PHYSIOLOGY OF EXERCISE (2)**

This course will center around the presentation and discussion of topics related to the application of exercise physiology to school, athletic, and adult fitness settings. Topics will include metabolism and nutrition as it pertains to exercise, the muscular system and resistive training, body composition and weight loss, the cardiovascular system as it relates to endurance training and cardiac rehabilitation, and exercise in extreme environmental conditions, and commonly used ergogenic aids. Prerequisite: KI 360 or equivalent.

**KIN 578 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. Cr/NC only.

**KIN 590 GRADUATE INTERNSHIP (3)**

KIN 590 students will have opportunity to apply Kinesiological theories and methods in field experiences related to Kinesiology professions. Internships require faculty approval and a minimum of 45 hours of work per unit, including regular consultation with and evaluation by the faculty sponsor. Prerequisite: graduate standing and consent of instructor.

**KIN 595 SPECIAL STUDIES (1-4)**

Includes completion of a project to meet a highly specialized advanced study need. Project to be selected in conference with the faculty advisor and approved by the departmental Graduate Studies Committee. Prerequisites: consent of instructor and approval of departmental Graduate Studies Committee before the study is initiated.

**KIN 599 CULMINATING PROJECT (3)**

KIN 599 Culminating Project is a scholarly investigation based on the students concentration area. Students will complete one of the following: project, thesis, scholarly article, clinical project or business/curriculum plan. Prerequisite: KIN 590 and an authorized Advancement to Candidacy form.

## Linguistics (LING)

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### LING 400 LINGUISTIC ANALYSIS (4)

Introduction to phonological and grammatical analysis. Includes articulatory phonetics, methods and practice in the analysis of sound systems, with attention given to American English. Also includes grammatical analysis, methods and practice in the analysis of word and sentence structure, with emphasis on non-Western European languages. Prerequisite: LING 200 or equivalent.

### LING 403 MEANING, CONTEXT AND REFERENCE (3)

Introduction to the linguistic approach to the study of meaning, including the ways in which meaning is determined by language use. Includes issues of semantics and pragmatics. Prerequisite: LING 200 or consent of instructor.

### LING 430 LANGUAGE ACQUISITION AND COMMUNICATIVE DEVELOPMENT (3)

Investigation of the processes underlying the acquisition of language in childhood and beyond including both first and second languages. Examination of various perceptual, cognitive, and social skills that interact with communicative development. Consideration of key questions concerning the nature of stages in development, the role of innate linguistic knowledge, and the role of experience in language acquisition. Prerequisite: LING 200.

### LING 432 LANGUAGE IN SOCIOPOLITICAL CONTEXT (4)

Focus on such topics as language attitudes, political power and linguistic equality, language and sociopolitical institutions, and language planning. Practical introduction to the insights offered by discourse analysis to the study of language varieties reflected in particular geographical regions, and by members of particular social classes/groups. Prerequisite: LING 200 or consent of instructor. Cross-listed as ANTH 383.

### LING 490 TOPICS IN LINGUISTICS (4)

In-depth examination of a specific topic within Linguistics. Topics vary with each offering. May be repeated for credit with departmental approval.

### LING 495 SPECIAL STUDIES (1-4)

Students interested in Special Studies in linguistics must fill out a special studies application by the end of the first week of the semester. Prerequisite: LING 200 or an appropriate upper-division course in linguistics or another discipline; consent of supervising faculty member and approval of program coordinator.

### LING 498 PRACTICUM FOR TEACHING ESL (2)

This final course in the TESL Certificate Program is a practical experience in teaching English as a Second Language. With the guidance of the coordinator/instructor, students will find placement in an ESL class. Students must complete approximately 90 hours of service with emphasis on actual classroom teaching, but the time commitment also includes lesson preparation, meetings and grading of papers. Students will be observed by the instructor (once or twice during the semester). There will also be three seminar meetings, times to be arranged.

### LING 499 INTERNSHIP IN APPLIED LINGUISTICS (1-3)

Practical experience entailing 50-60 hours for the semester in teaching English as a second language or in the development of ESL materials. Prerequisite or corequisite: LING 441 or 442. To be taken one time only.

### LING 595 SPECIAL STUDIES (1-3)

Students interested in Special Studies in linguistics must complete a special studies application by the end of the first week of the semester. Prerequisite: graduate standing and consent of instructor.

## Mathematics (MATH)

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### MATH 035 ELEMENTARY ALGEBRA (1)

Real numbers, linear equations and inequalities, quadratic equations, polynomial operations, radical and exponential expressions. Prerequisite: placement based on ELM examination taken within the past two years. Course credit is not applicable toward graduation.

### MATH 045 INTERMEDIATE ALGEBRA (1)

Linear, quadratic, radical, rational, exponential, and logarithmic functions and their graphs. Conic sections. Prerequisite: MATH 35 or equivalent, or placement based on ELM examination taken within the past two years. Course credit is not applicable toward graduation.

### MATH 103 ETHNOMATHEMATICS (3)

This course examines the mathematics of many indigenous cultures, especially those of North and South America, Africa, and Oceania. It will examine the use of mathematics in commerce, land measure and surveying, games, kinship, measurement of time, navigation, data storage, and other topics. The mathematics involved includes number bases, probability, geometry, number theory, lattice theory, and many other topics of interest in modern mathematics. This class is recommended for liberal arts students who are interested in studying other cultures. Satisfies GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

### MATH 104 INTRODUCTION TO MODERN MATHEMATICS (3)

A class designed to explore the beauty and relevance of mathematics. Topics may include puzzles, paradoxes and logic; axiomatic systems; biographies; infinity of the counting numbers and higher infinities; historical crises and breakthroughs in mathematics; and uncertainty. This class is recommended for liberal arts students. Satisfies GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

### MATH 105 MATHEMATICS AND POLITICS (3)

This course will explore mathematical achievements in the theory of politics. Topics may include: escalation, conflict, yes-no voting, political power, and social choice. This course has an enormous cultural content, while at the same time dealing with important mathematical ideas. This class is especially suitable for social science students. Satisfies GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

### MATH 107 PRECALCULUS MATHEMATICS (4)

Covers a brief review of college algebra; functional notation, composition and decomposition of functions, inverse functions; behavior of families of functions such as polynomial, rational, exponential, and logarithmic; trigonometric functions, equations, and identities; some mathematical modeling. Emphasis on problem solving. Satisfies the GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

### MATH 107W PRECALCULUS WORKSHOP (2)

A workshop designed to be taken with MATH 107. Exploration of precalculus concepts through problem solving in a group setting. Cr/NC only. Corequisite: MATH 107.

**MATH 111 SYMMETRY IN THE ARTS AND SCIENCES (3)**

Exploration of the mathematical theory of symmetry in the plane and in space. The theory uses the idea that the set of rigid motions comprises an algebraic structure called a group, and that composing rigid motions correspond to performing an algebraic operation. The course emphasizes how the mathematical theory aids in understanding the causes and consequences of symmetry in natural and man-made objects. A central theme is the contribution of mathematics to other fields, such as architecture and decorative art; engineering of mechanical devices; music and dance; evolution and anatomy; crystallography; chemical bonding and atomic structure; philosophy; and mathematical proofs. Satisfies GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

**MATH 131 INTRODUCTION TO FINITE MATHEMATICS (3)**

Designed to give students an understanding of finite mathematics applied in the modern world to social sciences, economic analysis, statistical analysis, and decision making. Topics include linear models, linear programming, financial mathematics, sets, combinatorics, probability, and statistics. Recommended for students with interests in the social sciences and management. Satisfies GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

**MATH 141 STUDIES IN . . . (3)**

Topics and approaches may vary. Please consult the current Schedule of Classes for details. Satisfies the GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

**MATH 142 DISCRETE STRUCTURES I (3)**

A study of discrete structures that have applications in computer science. Topics may include logic, introduction to number theory, methods of proof, mathematical induction, set theory, relations, functions, directed graphs, Boolean algebras, and combinatorics. Prerequisites: MATH 107 or equivalent, or consent of instructor.

**MATH 142E DISCRETE MATHEMATICS FOR ENGINEERING (2)**

The first portion of MATH 142: A study of discrete structures needed for electronics and communications engineering. Topics may include logic, proofs, mathematical induction, set theory, Boolean algebra, and combinatorics. Prerequisites: MATH 107 or equivalent, or consent of instructor.

**MATH 150 MODERN GEOMETRY (3)**

A study of Euclidean geometry. It will cover topics such as compass and straight-edge constructions, proofs, parallel and perpendicular lines, triangles, circles, polygons, measurement, solids, transformations, tessellations, and the use of geometry software. Satisfies the GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

**MATH 161 DIFFERENTIAL AND INTEGRAL CALCULUS I (4)**

Calculus I includes limits, continuity, the concept of the derivative, differentiation rules and applications of the derivative, including curve sketching, extremum problems, L'Hopital's rule, implicit differentiation, related rates, Mean Value Theorem, introduction to integration, fundamental theorem of calculus, and substitution. Satisfies the GE requirement for mathematics, category B4. Prerequisite: MATH 107 or consent of instructor.

**MATH 161W CALCULUS I WORKSHOP (2)**

A workshop designed to be taken with MATH 161. Exploration of first-semester calculus concepts through problem solving in a group setting. Cr/NC only. Corequisite: MATH 161.

**MATH 165 ELEMENTARY APPLIED STATISTICS (4)**

This course is a technology-intensive introduction to elementary statistics. Topics include: elementary descriptive and inferential statistics and their application to the behavioral, natural, and social sciences, sampling, special distributions, central limit theorem, estimation, tests of hypothesis, analysis of variance, linear regression and correlation. Satisfies the GE requirement for mathematics, category B4. Prerequisite: satisfaction of ELM requirement.

**MATH 175 MATHEMATICS COLLOQUIUM (1)**

A student taking this course will be required to attend all presentations in the M\*A\*T\*H Colloquium series during the semester and, in addition, keep a journal. May be taken three times for credit. Cr/NC only. Prerequisite: consent of instructor.

**MATH 180 COMPUTING FOR MATHEMATICS AND SCIENCE (2)**

This course will utilize a software system, such as Mathematica, to implement numerical, symbolic, and graphical computations useful in mathematics and science. It will also introduce students to procedural programming in that system. Prerequisite: MATH 161 or consent of instructor.

**MATH 185 SELECTED TOPICS IN MATHEMATICS (1-5)**

Subject matter to be determined by instructor and may differ from semester to semester. This course may be repeated with different subject matter for up to 12 units. The course title will appear on the student's transcript. Prerequisite: consent of instructor.

**MATH 195 SPECIAL STUDIES (1-4)**

Special Studies may be arranged to cover an area of interest not covered in the lower division courses offered by the department. Prerequisites: A college-level math course and consent of instructor.

**MATH 200 DISCRETE MATHEMATICS (3)**

Designed for elementary and middle school teachers, this course is a study of discrete mathematics with emphasis on its use in other areas of mathematics and in real world problems. Topics include selections from logic, proof, coding and cryptography, set theory, sequences, mathematical induction, combinatorics, graphs, and others as selected by the instructor. Prerequisite: a GE Mathematics class or consent of the instructor.

**MATH 210 INTRODUCTION TO PROOF (1)**

Introduction to propositional logic and methods of proof, including direct proof, indirect proof, proof by "pick-a-point," and proof by mathematical induction. Students construct and analyze conjectures and counterexamples, and analyze and write proofs. Topics will include basic set theory, function theory, and equivalence relations, and may include examples from elementary number theory, algebra, and geometry. Does not count toward the mathematics major, but satisfies the MATH 220 prerequisite for certain upper-division mathematics courses. Cr/NC only. Prerequisite: GE math and consent of instructor.

**MATH 211 DIFFERENTIAL AND INTEGRAL CALCULUS II (4)**

Calculus II includes the calculus of exponential and logarithmic functions, trigonometric and inverse trigonometric functions, numerical integration, techniques of integration, introduction to applications of integration including volumes and probability distributions, differential equations, Taylor polynomials, L'Hopital's rules, improper integrals, series, and introduction to partial derivatives. Prerequisite: MATH 161 or consent of instructor.

**MATH 211S CALCULUS II-S (2)**

First half of MATH 211. Prerequisites: MATH 161 or consent of instructor. Open only to students enrolled in programs that require MATH 211S.

**MATH 211SW CALCULUS II-S WORKSHOP (1)**

First half of MATH 211W. A workshop designed to be taken with MATH 211S. Exploration of second-semester calculus concepts through problem solving in a group setting. Cr/NC only. Corequisite: MATH 211S.

**MATH 211W CALCULUS II WORKSHOP (2)**

A workshop designed to be taken with MATH 211. Exploration of second semester calculus concepts through problem solving in a group setting. Cr/NC only. Corequisite: MATH 211.

**MATH 220 HIGHER MATHEMATICS: AN INTRODUCTION (3)**

This is a transitional course supplying background for students going from calculus to the more abstract upper-division mathematics courses. The principal aim of this course is to develop proficiency in reading and creating proofs. The following topics are included: elementary logic, methods of proof, set theory, relations and functions. Topics that may be covered include: algebras, homomorphisms, cardinality, Boolean algebra, the integers, limits and the real numbers. Transfer students are encouraged to take MATH 220 during their first semester here. Prerequisite: MATH 211 or equivalent, or consent of instructor.

**MATH 222 ELEMENTARY APPLIED LINEAR ALGEBRA (3)**

A course in vector and matrix algebra applied to science and computing. Topics include systems of linear equations, determinants, Euclidean and general vector spaces, eigenvalues and eigenvectors, linear transformations. Prerequisite: MATH 107 or consent of instructor.

**MATH 241 DIFFERENTIAL EQUATIONS WITH LINEAR ALGEBRA (4)**

A course in vector and matrix algebra applied to the study of differential equations. Topics include vectors and matrices, linear independence, spanning, bases, linear transformations, first order differential equations and linear systems, phase planes, geometric and numerical methods. Prerequisite: MATH 211 or equivalent, or consent of instructor.

**MATH 250 PROBABILITY AND STATISTICS (3)**

A study of elementary probability and statistics and their uses in real-world contexts. Topics include the binomial distribution, conditional probability, expected value, data collection and sampling, measures of location and variability, correlation and regression, estimation, and simple hypothesis testing. This course is designed for teachers and may not be substituted for MATH 165. Prerequisite: Any GE-level math course or consent of instructor.

**MATH 261 MULTIVARIABLE CALCULUS (4)**

Multivariable calculus includes partial derivatives, multiple integrals, alternative coordinate systems, vector functions and their derivatives, line integrals, Green's Theorem, Stokes' Theorem, and Divergence Theorem. Prerequisite: MATH 241 or equivalent, or both PHYS 114 and MATH 211, or consent of instructor.

**MATH 265 INTERMEDIATE APPLIED STATISTICS WITH SPSS (4)**

This course is a technology-intensive examination of the application of statistical techniques to the real world using SPSS. The course extends the concepts learned in an elementary statistic course and introduces new topics; it is suitable for students with an interest in applying statistics to their field of interest. Topics selected from: theory of estimation, ANOVA (analysis of variance), multiple regression, principles of experimental design, sampling theory, time series analysis, non-parametric statistics, and multivariate analysis. Prerequisite: MATH 165 or MATH 250 or instructor consent.

**MATH 295 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

CIP involves students in basic community problems, performing such tasks as tutoring, coaching, and reading for the blind. Students receive 1 to 4 units, depending on the specific tasks performed. No more than 3 units of credit in CIP may be applied toward any mathematics degree. May be repeated for credit up to 6 units total. Cr/NC only.

**MATH 300A ELEMENTARY NUMBER SYSTEMS (3)**

This course, designed for prospective elementary and middle school teachers, explores numerical ideas underlying the K-8 mathematics curriculum. The emphasis is on understanding the mathematical ideas and procedures, and on representing them in ways that children can understand. Alternative ways of representing and solving problems are encouraged. Problem solving and logical thinking are emphasized throughout. Prerequisite: MATH 150 or other GE math course.

**MATH 300B DATA, CHANCE AND ALGEBRA (3)**

This course is designed for prospective elementary and middle school teachers. The focus in algebra is on patterns and functions, algebraic structure, representations and connections, and reasoning and problem solving. The focus in data and chance is on developing solid understanding of fundamental concepts and skills in statistics and probability, and on enhancing students' understanding and skills in number and computation proportional reasoning, and algebra. Prerequisite: MATH 300A.

**MATH 303 INTEREST THEORY (3)**

Basic interest theory, including patterns of growth, interest operations, basic applications, level payment annuities, non level payment annuities, yield rates, amortization and sinking funds, and bonds. Prerequisite: MATH 161 or equivalent or consent of instructor.

**MATH 306 NUMBER THEORY (3)**

Topics may include mathematical induction, Euclidean algorithm, congruences, fundamental theorem of arithmetic, perfect numbers, number theoretic functions, prime number theorem. Prerequisite: MATH 220 or MATH 142 or MATH 200 or CS 242. This prerequisite is primarily intended to ensure that students are capable of reading and writing proofs.

**MATH 308 COLLEGE GEOMETRY (3)**

Topics may include the Hilbert postulates, isometries in the Euclidean plane, non-Euclidean geometries, construction of geometries from fields. Prerequisite: MATH 220 or MATH 142 or MATH 200 or CS 242. This prerequisite is primarily intended to ensure that students are capable of reading and writing proofs.

**MATH 310 HISTORY OF MATHEMATICS (3)**

Mathematics from ancient times to the present. The student learns how to solve problems of the past using only the tools of the past. Prerequisite: MATH 161 or consent of instructor.

**MATH 316 GRAPH THEORY AND COMBINATORICS (3)**

Set theory, counting techniques such as permutations, combinations, generating functions, partitions and recurrence relations, Polya's theorem, Hamiltonian and Eulerian properties of graphs, matchings, trees, coloring problems and planarity. Applications in many disciplines. Students may not earn credit for both MATH 316 and MATH 416. Prerequisite: MATH 220 or MATH 142 or MATH 200 or CS 242. This prerequisite is primarily intended to ensure that students are capable of reading and writing proofs.

**MATH 320 MODERN ALGEBRA I (4)**

An introduction to the theory of groups, rings, and fields. Topics covered include permutation and cyclic groups, factor groups, ideals and factor rings, and isomorphism and homomorphism theory of groups and rings. Prerequisite: MATH 220 or consent of instructor.

**MATH 322 LINEAR ALGEBRA (3)**

Topics include applications using linear models, vector spaces, linear transformations, matrices, linear equations, determinants, and the Cayley-Hamilton theorem. Prerequisite: MATH 220 and either MATH 222 or 241 or consent of instructor.

**MATH 330 TECHNIQUES OF PROBLEM SOLVING (2)**

Cultivates by experience and example the mental disciplines for generating creative solutions to challenging problems. The problems to be considered will be taken largely from recent examinations in the William Lowell Putnam Mathematical Competition, sponsored by the Mathematical Association of America. No more than 4 units of credit in this course may be applied toward any mathematics degree. May be taken four times for credit. Cr/NC only. Prerequisite: MATH 161 or consent of instructor.

**MATH 331 DIFFERENTIAL EQUATIONS II (3)**

Topics may include Picard's method and a discussion of the existence and uniqueness of solutions; General properties of solutions, including the Sturm separation theorem for second-order linear equations; Power series solutions for a regular singular point; Laplace transform; Linear systems of differential equations; Nonlinear differential equations and stability. Prerequisite: Math 241 or consent of instructor.

**MATH 340 REAL ANALYSIS I (4)**

Topics may include construction of the real numbers, sequences, topology of the real numbers, metric spaces, continuity, the derivative, and the Riemann integral. Prerequisites: MATH 220 and MATH 261, or consent of instructor.

**MATH 342 DISCRETE STRUCTURES II (3)**

A study of discrete structures that have applications in computer science. Topics will include combinatorics and counting, probability and statistics, matrices, recurrence relations, generating functions, and graph theory. Throughout the course, applications to computer science will be discussed. Prerequisite: consent of instructor, or MATH 211 and one of the following: MATH 142, MATH 200, or MATH 220.

**MATH 345 PROBABILITY THEORY (4)**

Topics include probability spaces, discrete and continuous random variables, selected probability distributions for random phenomena, distributions of functions of random variables, moment generating functions, expected value, covariance and correlation, conditional expectation, law of large numbers and central limit theorem, sampling distribution of estimators. Prerequisite: MATH 261 or consent of instructor.

**MATH 352 NUMERICAL ANALYSIS (3)**

Selected numerical and iterative processes for solving equations. Topics include computer methods, finite differences, Lagrange interpolations, introduction to the finite element method, and the theory of spline functions. Prerequisites: MATH 241 (may take concurrently) and MATH 180 or CS 115 or competence in a high-level programming language, or consent of instructor.

**MATH 360 INTRODUCTION TO COMPLEX VARIABLES (3)**

Topics will include the complex field, functions, limits, continuity, complex differentiation and the Cauchy-Riemann equations, complex integration, residues, conformal mappings. Prerequisites: MATH 261 (may be concurrent) and MATH 220. MATH 340 is strongly recommended.

**MATH 367 STATISTICAL CONSULTING AND COMMUNICATION (2)**

This course is a blending of theoretical and practical aspects of statistical consulting. Students learn how to consult with professionals in various fields, find creative statistical solutions to real-world problems and present results in oral and written form. Students also learn about research and statistical software packages. Prerequisite: MATH 265 or consent of instructor.

**MATH 375 M\*A\*T\*H COLLOQUIUM (1)**

Students will be required to attend presentations, keep a journal, and write a significant paper on one of the presentations. May be taken three times for credit. No more than 3 units may be applied to the upper-division major or minor requirement. May not be taken concurrently with MATH 175. Prerequisites: consent of instructor and upper-division standing.

**MATH 381 COMPUTING FOR STATISTICS: SAS PROGRAMMING LANGUAGE (2)**

Students will learn how to write SAS programs in order to perform data management tasks, statistical analysis, and to generate summary graphs and SAS reports. Topics include essential programming concepts - the environment and steps; typical data processing tasks; data management techniques - working with SAS libraries and different types of data, data set input and output, validation, merging, and subsets; statistical analyses - descriptive statistics, histograms and bar charts, k analysis of variance, regression analysis; and generation of SAS reports. Prerequisite: MATH 265 or concurrent enrollment; or consent of instructor.

**MATH 390 FIELDWORK AND SEMINAR: SECONDARY MATHEMATICS TEACHING (2)**

Forty-five hours of observation in middle school, junior high, and/or high school mathematics classrooms, plus a weekly seminar. Students begin to view school mathematics from the vantage point of a teacher. Intended primarily for mathematics majors in the secondary teaching track or students considering a career in this field. This course satisfies the 45 hours of field observation required for acceptance into SSU's Single Subject Credential Program, and initiates the development of the Mathematics Portfolio required for mathematics majors in the secondary teaching track. Cr/NC only. Prerequisite: MATH 161 or consent of instructor.

**MATH 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

CIP involves students in the community performing such tasks as tutoring, coaching, and reading for the blind. Students receive 1 to 4 units, depending on the specific tasks performed. No more than 3 units of credit in CIP may be applied toward any mathematics degree. May be repeated for a total of 6 units. Cr/NC only.

**MATH 399 PRACTICUM IN MATHEMATICS (1-4)**

Supervised unpaid instructional work experience in Mathematics. May include tutoring, assisting with classroom activities, and leading supplementary course workshops. Thirty hours of contact time is required for each unit. Does not count for credit in the major or the minor, except for one unit in the Integrated Program. May be repeated for up to 4 units of credit. Prerequisite: requires previous or concurrent enrollment in an upper division mathematics course and consent of instructor. Cr/NC only.

**MATH 416 GRAPH THEORY AND COMBINATORICS (3)**

Set theory, counting techniques such as permutations, combinations, generating functions, partitions and recurrence relations, Polya's theorem, Hamiltonian and Eulerian properties of graphs, matchings, trees, coloring problems and planarity. Applications in many disciplines. MATH 416 covers the same topics as MATH 316. Students taking MATH 416 will work advanced problems from these topics and do a special research project which requires a significant paper and an oral presentation. Students may not earn credit for both MATH 316 and MATH 416. Prerequisite: MATH 142 or MATH 200 or MATH 220 or consent of instructor.

**MATH 418 GENERAL TOPOLOGY (3)**

Topics include definition of a topology, closed sets, relativizations, base and subbases of a topology, compact topological spaces, separation axioms, normal spaces, regular spaces, metric spaces, continuous mappings, product spaces, function spaces. Prerequisite: MATH 340 or consent of instructor.

**MATH 420 MODERN ALGEBRA II (3)**

A continuation of MATH 320. Advanced topics in the theory of groups, rings, and fields. Coverage may include topics such as the direct product of groups, finite Abelian groups, Sylow Theorems, unique factorization domains, field extensions, and Galois Theory.

**MATH 430 LINEAR SYSTEMS THEORY (3)**

Topics may include correlation, convolution, Fourier, Laplace and z-transform, difference equations, fast Fourier transforms and state variable theory. Prerequisite: one semester of differential equations (such as MATH 241) or consent of instructor. (Crosslisted with ES 400 and CES 400).

**MATH 431 PARTIAL DIFFERENTIAL EQUATIONS AND INTEGRAL TRANSFORMS (3)**

A course in partial differential equations (PDEs). Topics include mathematical models in physics, theory and solution of quasi-linear first-order PDEs, second-order linear and nonlinear PDEs including applications, Fourier series, boundary-value problems, Fourier and Laplace transforms, Numerical methods and solutions. Prerequisite: MATH 241 or consent of instructor.

**MATH 440 REAL ANALYSIS II (3)**

A continuation of MATH 340. Topics include sequences and series of functions, Taylor series, Weierstrass approximation theorem, Fourier series and the Lebesgue integral. Prerequisite: MATH 340 or consent of instructor.

**MATH 441 OPERATIONS RESEARCH (3)**

A course in operations research and industrial problem solving. Topics may include optimization, simplex algorithm for linear programming, queueing theory, game theory, PERT least time path analysis, mathematical modeling of industrial problems. Prerequisites: MATH 345 and either MATH 241 or MATH 222, or consent of instructor.

**MATH 445 MATHEMATICAL STATISTICS AND OPERATIONS RESEARCH (4)**

Topics include: properties of statistics, convergence in probability, theory of estimation and confidence intervals, Bayesian statistics, tests of significance, power and uniformly most powerful tests, random processes (with emphasis on queueing theory) and stationarity. Prerequisite: MATH 345 or consent of instructor.

**MATH 465 EXPERIMENTAL DESIGN AND REGRESSION ANALYSIS (4)**

Advanced course in simple and multiple linear regression analysis; nonlinear and nonparametric regression analysis. Design of experiments and analysis of variance including one-way, two way and block design; nonparametric techniques and multiple comparison methods. Prerequisite: MATH 265 and MATH 241 or a course in linear algebra or consent of instructor.

**MATH 467 STATISTICAL CONSULTING, COMMUNICATION AND PROJECT MANAGEMENT (2)**

This course is a blending of theoretical and practical aspects of statistical consulting. Students learn how to consult with professionals in various fields, find creative statistical solutions to real-world problems and present results in oral and written form. Students also learn about research and statistical software packages. MATH 467 covers the same topics as MATH 367. In addition, students taking MATH 467 will also learn how to oversee a statistical project completed by a team. Prerequisite: MATH 367 or consent of instructor.

**MATH 470 MATHEMATICAL MODELS (3)**

The process of expressing scientific principles, experiments, and conjectures in mathematical terms. Topics include: gathering reliable data, exposing underlying assumptions, variables, relationships, levels, refining of models, and stochastic models. Deterministic vs. stochastic models. Applications to biology, physics, chemistry, geology, social science and environmental sciences. Prerequisite: MATH 211 or consent of instructor.

**MATH 485 SELECTED TOPICS IN . . . (1-3)**

Subject matter and number of units to be determined by the instructor and may differ from semester to semester. Some of the possible areas of study are multi-variable analysis, calculus of variations, convex geometry, differentiable manifolds, graph theory, Galois theory, algebraic topology, integral equations. This course may be repeated for up to 6 units. The course title will appear on the student's transcript. Prerequisite: consent of instructor.

**MATH 490 CAPSTONE SEMINAR: SECONDARY MATHEMATICS TEACHING (1)**

Seminar focusing on connections among undergraduate coursework, secondary school curriculum, and learning and teaching mathematics. Students present their completed Mathematics Subject Matter Program portfolios for final evaluation. Students draw upon their portfolios, experiences, and readings in mathematics education to present information and engage fellow students in discussion of relevant issues. Prerequisites: Senior standing or consent of instructor.

**MATH 495 SPECIAL STUDIES (1-4)**

Prerequisites: a lower-division math course and consent of instructor.

**MATH 496 PROSEMINAR IN MATHEMATICS (1-3)**

A mutual exploration of selected current issues in mathematics by members of the mathematics faculty and mathematics majors. Non-majors may enroll by permission of the instructors. Prerequisite: upper-division standing.

**MATH 499 INTERNSHIP IN MATHEMATICS (1-3)**

Field experience in mathematics, computer science, or statistics. May be repeated for credit up to 3 units total. Cr/NC only. Prerequisite: prior arrangement with instructor.

**MATH 595 SPECIAL STUDIES IN MATHEMATICS (1-4)**

Subject matter and number of units to be determined by instructor and may differ from semester to semester. This course may be repeated with different subject matter for up to 12 units. The course title will appear on the student's transcript. Prerequisite: consent of instructor.

## **Music (MUS)**

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### **MUS 101 INTRODUCTION TO MUSIC (3)**

What does music mean? Why does music matter? These questions will shape the development of listening tools and cultural perspectives appropriate to the diverse and changing roles music plays in different times and places. No prior background in music is required. Satisfies GE, category C4 (Comparative Perspectives).

### **MUS 105 MUSIC THEORY FOR NON MAJORS (3)**

Through writing and analysis, this course incorporates the following concepts: rhythm and meter; basic properties of sound; intervals; diatonic scales and triads; diatonic chord progressions, basic cadential formulas, melodic and phrase structure; dominant seventh; Use of music notation software. Not open to Music Majors. Satisfies GE, category C1 (Applied Arts Combining Studio and Theory).

### **MUS 106 FUNDAMENTALS OF MUSIC THEORY (3)**

Intensive practice in developing skill and fluency reading music notation. Aural and written practice recognizing, writing and using intervals, scales and key signatures. Beginning sight singing and dictation using simple pitch and rhythmic materials. Should be taken concurrently with MUS 109. Restricted to music majors; open to non-majors only with consent of instructor.

### **MUS 109 INTENSIVE KEYBOARD LAB I (2)**

A course designed for prospective music majors who fail to meet the keyboard competencies required for entry into the program. Those students who also lack knowledge of theory fundamentals should take MUS 105 with this course. Prerequisite: prospective major status and recommendation of a music advisor.

### **MUS 110 THEORY I: DIATONICISM (3)**

This course incorporates the concepts from MUS 105. In addition, through writing and analysis, the course will include: introduction to sequence; secondary dominants; modulation to closely related keys; secondary leading tones; Diminished seventh and non-dominant 7th chords, borrowed chords will be addressed. Figured bass; non-harmonic tones; melodic and phrase structure; and voice leading involving 4 part choral writing. Use of music notation software. A concurrent laboratory experience in ear training and sight-singing including melodic, harmonic, and rhythmic dictation is required. See Ear Training I. Prerequisite: MUS 105 or 106, or consent of instructor.

### **MUS 115 VOCAL METHODS (1)**

Group work in the fundamental techniques of singing. Problems of tone production, breath control, diction, repertory, and interpretation. Offered for upper-division credit as MUS 415 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

### **MUS 118 GUITAR METHODS (1)**

Basic performing techniques on guitar. Offered for upper-division credit as MUS 418 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

### **MUS 120 EAR TRAINING I (2)**

Development of sightsinging and dictation skills using pentatonic and diatonic materials. Techniques include moveable-do solfa, takadimi rhythmic system, and drills in intervals, triads and dictation, facilitated by computer software and partner work. Also emphasizes development of broad listening skills, using examples of great works based upon simple diatonic melodies. Prerequisite: MUS 105 or equivalent.

### **MUS 122 STRING METHODS (1)**

Basic performing techniques on orchestral string instruments. Offered for upper-division credit as MUS 422 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

### **MUS 123 WOODWIND METHODS (1)**

Basic performing techniques on band and orchestral woodwind instruments. Offered for upper-division credit as MUS 423 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

### **MUS 124 BRASS METHODS (1)**

Basic performing techniques on band and orchestral brass instruments. Offered for upper-division credit as MUS 424 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

### **MUS 129 PERCUSSION METHODS (1)**

Basic performing techniques on standard percussion instruments. Offered for upper-division credit as MUS 429 with additional course requirements. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

### **MUS 133 PRIVATE INSTRUCTION-STRINGS (1)**

Private instruction on one instrument. May be repeated for credit. Prerequisite: audition.

### **MUS 134 PRIVATE INSTRUCTION-WOODWINDS (1)**

Private instruction on one instrument. May be repeated for credit. Prerequisite: audition.

### **MUS 137 PRIVATE INSTRUCTION-BRASS (1)**

Private instruction on one instrument. May be repeated for credit. Prerequisite: audition.

### **MUS 138 PRIVATE INSTRUCTION-PERCUSSION (1)**

Private instruction on percussion instruments. May be repeated for credit. Prerequisite: audition.

### **MUS 139 PRIVATE INSTRUCTION-KEYBOARD (1)**

Private instruction on one keyboard instrument. May be repeated for credit. Prerequisite: audition.

### **MUS 141 PRIVATE INSTRUCTION-VOICE (1)**

Private voice instruction. May be repeated for credit. Prerequisite: audition.

### **MUS 143 PRIVATE INSTRUCTION-GUITAR (1)**

Private guitar instruction. May be repeated for credit. Prerequisite: audition.

### **MUS 147 APPLIED MUSIC STUDIES (1)**

Advanced individual study of instrument or voice. Instructor permission required. May be repeated for credit.

### **MUS 150 SURVEY OF U.S. MUSIC (3)**

An introductory course with lectures and demonstrations dealing with the broad range of music in the United States from the Colonial period to the present. Satisfies GE, category C1 (History of the Fine Arts).

**MUS 151 REPERTORY CLASS-PRIVATE INSTRUCTION (1)**

This class provides an opportunity for students to perform their repertory in a group setting. Private instruction faculty coach students in technique, interpretation, and presentation. Classes are normally offered for voice and classical instrumental. Also offered for upper-division credit as MUS 451. May be repeated for credit. Prerequisite: concurrent enrollment in appropriate private instruction course.

**MUS 159 AUDIO AND RECORDING PRODUCTION I (1)**

Fundamentals of audio and recording production in a studio and of live performances. Discussion and demonstrations of major types of software and/or hardware used in the production of music including creative and innovative methods. Students will develop skills in all phases of studio and live performance operation and will complete a number of individual projects.

**MUS 189 JAZZ IMPROVISATION I (1-2)**

Exploration of the techniques of melodic composition and improvisation based on the scales and chords used in jazz. Maybe repeated for credit. Prerequisite: MUS 105 and consent of instructor.

**MUS 199 STUDENT INSTRUCTED COURSE (1-3)**

Topic will differ each semester. Cr/NC only.

**MUS 201 MUSIC IN ACTION (3)**

Experience great classical, jazz and world music performances created by today's musicians. Students are engaged as audiences for on-campus, videotaped and recorded performances of renowned and important performers and composers and for Music Department productions. Post-performance small group discussions and on-line chats ask students to further engage by reflecting upon their shared experiences. Attendance is required at several on-campus free admission performances. Satisfies GE, category C4.

**MUS 209 INTENSIVE KEYBOARD LAB II (2)**

A continuation of work begun in MUS 109. Prerequisite: MUS 109.

**MUS 210 THEORY II: CHROMATICISM (3)**

This course incorporates the concepts from Music Theory II. IN addition, through writing and analysis, the course will include: Neapolitan and augmented sixth chords, chromatic harmony, altered chords and dominants, mixture chords; modulation to distantly related keys, and 9th, 11th and 13th chords, melodic, phrase and theme structure, voice leading involving 4 part choral writing. Use of music notation software. A concurrent laboratory experience in ear training and sight-singing including melodic, harmonic, and rhythmic dictation is required. See Ear Training II. Prerequisite: MUS 110 or consent of instructor.

**MUS 210 THEORY II: CHROMATICISM (3)**

This course incorporates the concepts from Music Theory II. IN addition, through writing and analysis, the course will include: Neapolitan and augmented sixth chords, chromatic harmony, altered chords and dominants, mixture chords; modulation to distantly related keys, and 9th, 11th and 13th chords, melodic, phrase and theme structure, voice leading involving 4 part choral writing. Use of music notation software. A concurrent laboratory experience in ear training and sight-singing including melodic, harmonic, and rhythmic dictation is required. See Ear Training II. Prerequisite: MUS 110 or consent of instructor.

**MUS 212 JAZZ HARMONY AND ARRANGING I (3)**

Study of basic melodic and harmonic materials commonly used in jazz. Application through arranging projects for small jazz groups. Prerequisite: MUS 110 or consent of instructor.

**MUS 212 JAZZ HARMONY AND ARRANGING I (3)**

Study of basic melodic and harmonic materials commonly used in jazz. Application through arranging projects for small jazz groups. Prerequisite: MUS 110 or consent of instructor.

**MUS 220 EAR TRAINING II (2)**

Continuation of Ear Training I. Sightsinging progresses to two-,three- and four-part music, incorporating the most common chromatic tones. Dictation focuses upon triad inversions, continuing development of melodic and rhythmic dictation skills, and the introduction of polyphonic dictation. Listening skills are pursued using great works which emphasize contrapuntal techniques. Prerequisite: MUS 120 or equivalent.

**MUS 220 EAR TRAINING II (2)**

Continuation of Ear Training I. Sightsinging progresses to two-,three- and four-part music, incorporating the most common chromatic tones. Dictation focuses upon triad inversions, continuing development of melodic and rhythmic dictation skills, and the introduction of polyphonic dictation. Listening skills are pursued using great works which emphasize contrapuntal techniques. Prerequisite: MUS 120 or equivalent.

**MUS 250 SURVEY OF EUROPEAN MUSIC (3)**

An introductory course with lectures and demonstrations dealing with classical European music from the Middle Ages to contemporary music. Satisfies GE, category C1 (History of the Fine Arts).

**MUS 251 HISTORY OF WESTERN MUSIC - ANCIENT WORLD TO 1750 (3)**

History of Western Music from the Ancient World to 1750. The course embodies the study of the evolution of musical genres, from the earliest plainchant of the Medieval church to the intricate polyphony of the High Baroque including the music of Bach and Handel. Listening and analytical study of specific compositions requires the student to have a working knowledge of musical notation and theory. Prerequisites: MUS 110, or by consent of the instructor.

**MUS 252 HISTORY OF WESTERN MUSIC 1750-PRESENT (3)**

History of music in the Western tradition, dating from 1750 to the present. The course embodies the study of representative composers including Mozart, Beethoven, Brahms and Stravinsky, as well as analytical studies of specific works dating from this time period. This course is offered to both Majors and non-Majors with a working knowledge of musical notation and theory. Prerequisites: MUS 210, or by consent of instructor.

**MUS 259 MUSIC TECHNOLOGY: TOOLS AND APPLICATIONS (2-3)**

A hands-on survey of hardware and software resources for music notation, midi sequencing, digital recording and synthesizer operation. The focus will be on building basic skills for using these tools in real-world situations. Required for Music Education students; open only to music majors.

**MUS 289 JAZZ IMPROVISATION II (3)**

Basic voiceleading techniques for improvising on common functional chord progressions: blues, "Rhythm" changes and various "standards". Prerequisite: MUS 110 and MUS 189; or consent of instructor.

**MUS 289 JAZZ IMPROVISATION II (3)**

Basic voiceleading techniques for improvising on common functional chord progressions: blues, "Rhythm" changes and various "standards". Prerequisite: MUS 110 and MUS 189; or consent of instructor.

**MUS 292 JAZZ PIANO I (1)**

An introduction to jazz improvisation at the keyboard. Emphasis is placed on developing skill in reading lead sheets, in chord substitution and voicing at the keyboard, and in creating an improvised “piano trio” texture. Prerequisite: MUS 209 or consent of instructor.

**MUS 295 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

CIP involves students in basic community problems, performing such tasks as tutoring, coaching, and performing for hospitals and schools. Students taking CIP through the Music Department must arrange for supervision by a Music Department advisor. Students in the music education concentration must see their advisor about special requirements. Cr/NC only.

**MUS 300 SEMINAR (3)**

An intensive study, for music majors, of the history, theory or research methodology of a specific topic in music. May be repeated for credit under different subtitles. Prerequisites: 9 units of theory and concurrent enrollment in MUS 320, or consent of instructor.

**MUS 301 MUSIC AND TECHNOLOGY: THEN AND NOW (3)**

How does technology affect musical composition, performance and listening? An exploration of the effects of musical notation, music printing, acoustic musical instruments, self-playing musical instruments, recording, electronic instruments and digital resources on past and present music making. No prior background in music is required. Satisfies GE, Category C1 (History of the Fine Arts).

**MUS 309A KEYBOARD PROFICIENCY LAB (1)**

The study of functional keyboard; figured bass, harmonization, transposition and sightreading. Prerequisite: Placement test. Students who lack sufficient keyboard fluency may take pre-major Intensive Keyboard Labs (MUS 109 and 209) to meet the required competency.

**MUS 309B KEYBOARD PROFICIENCY LAB (1)**

The study of functional keyboard; figured bass, harmonization, transposition and sightreading. Prerequisite: Placement test. Students who lack sufficient keyboard fluency may take pre-major Intensive Keyboard Labs (MUS 109 and 209) to meet the required competency.

**MUS 310 THEORY III: FORM AND ANALYSIS (3)**

This course incorporates the concepts from Music Theory I and II. In addition, through analysis from the macro to the micro large-scale form, orchestration, motive identification and tracking, detailed harmonic progression (sonorities, functions and modulation types) are studied. Variation techniques, binary and ternary forms, sonata forms, contrapuntal forms are including in the study of such composers as Bach, Mozart, Beethoven and Mahler. Use of music notation software. A concurrent laboratory experience in ear training and sight-singing including melodic, harmonic, and rhythmic dictation is required. See Ear Training III.

**MUS 312 JAZZ HARMONY AND ARRANGING II (3)**

A continuation of MUS 212. Study of advanced melodic and harmonic materials commonly used in jazz. Application through arranging projects for small (saxophone ensemble) and large (big band) jazz groups. Prerequisite: MUS 212.

**MUS 312 JAZZ HARMONY AND ARRANGING II (3)**

A continuation of MUS 212. Study of advanced melodic and harmonic materials commonly used in jazz. Application through arranging projects for small (saxophone ensemble) and large (big band) jazz groups. Prerequisite: MUS 212.

**MUS 314 ORCHESTRATION (2)**

Techniques of instrumentation and choral arranging. Prerequisites: MUS 323, 324 or 325, and 210 or 212 or 317; performance experience on strings, woodwind, brass, and percussion instruments (recommended); and consent of instructor.

**MUS 315 DICTION - ENGLISH/ITALIAN (1-2)**

This hands-on course complements vocal instruction and theatre arts classes through diction training. Students will learn to use the “International Phonetic Alphabet” to help them analyze and transliterate English for the stage, Italian and Latin songs and arias.

**MUS 316 DICTION - FRENCH AND GERMAN (1-2)**

A continuation of MUS 315. Students will learn to use the “International Phonetic Alphabet” to help them analyze and transliterate foreign texts in French and German.

**MUS 317 SMALL JAZZ BAND ARRANGING (3)**

Arranging for two, three and four parts in a jazz style is explored. Instrumental and vocal orchestration is studied. Prerequisites: MUS 112 and 212.

**MUS 320 EAR-TRAINING III (2)**

Continuation of Ear Training II. Focuses upon the music of Bach. Bach’s chorales form the core of sightsinging and dictation exercises, supplemented by excerpts from cantatas and other works. The full chromatic gamut is introduced, and more advanced harmonic and rhythmic patterns. Listening and analysis activities focus upon a diverse selection of Bach’s works. Prerequisite: MUS 220 or equivalent.

**MUS 320 EAR-TRAINING III (2)**

Continuation of Ear Training II. Focuses upon the music of Bach. Bach’s chorales form the core of sightsinging and dictation exercises, supplemented by excerpts from cantatas and other works. The full chromatic gamut is introduced, and more advanced harmonic and rhythmic patterns. Listening and analysis activities focus upon a diverse selection of Bach’s works. Prerequisite: MUS 220 or equivalent.

**MUS 321 AURAL SKILLS PRACTICUM (1)**

Focus varies each semester. Will stress the development of such practical skills as sight-singing, dictation, oral tradition, transcription, repertory building, score-reading, rhythm training, and sight-reading of various periods, cultures, and styles. May be repeated for credit. See each Concentration for number of semesters required.

**MUS 323 CHAMBER SINGERS (1-2)**

Small vocal ensemble. Repertoire may include madrigals, motets, masses and partsongs from the Medieval, Renaissance, Baroque and 20th century periods. Emphasis is placed on the development of comprehensive musicianship, interpretive skills, and ensemble sensitivity. Frequent public performances. Admission by audition. May be repeated for credit.

**MUS 324 SONOMA COUNTY BACH CHOIR (1-2)**

Medium-sized vocal ensemble specializing in rehearsal and performance of music from the Renaissance, Baroque, Classical and 20th-century periods. Repertoire features major choral/orchestral works by Schutz, Bach, Mozart, and others, performed with historical instrumentation and performance practices. Frequent public performances. Admission by audition.

**MUS 325 SSU CHORUS (1-2)**

Large chorus featuring a wide range of accompanied and a cappella literature. Emphasis placed on development of vocal technique and musicianship skills, and on preparation of repertoire. Includes public performances. No previous choral experience required; singers will be given a simple screening after enrolling. May be repeated for credit.

**MUS 326 GUITAR ENSEMBLE (1-2)**

The course focuses on all aspects of the literature for multiple guitars~performance, listening, sightreading and technique. A wide variety of repertory is covered and a public performance is required. Project proposals from class members are welcomed. Prerequisite: consent of instructor.

**MUS 327 SYMPHONIC WIND ENSEMBLE (1-2)**

Woodwind, brass and percussion ensemble of 60+ music majors, qualified non-majors and community members. Focus is on the performance of serious wind band literature, including the best of the traditional band repertoire. Four annual concerts includes some touring. Placement by audition. May be repeated for credit.

**MUS 328 STRING ORCHESTRA (1-2)**

This string-based ensemble will explore concert and opera literature from several periods, and eventually will include woodwinds, brass and percussion players. This course is open to students, faculty and staff. May be repeated for credit.

**MUS 329 CHAMBER MUSIC ENSEMBLES (1-2)**

Enrolled students will be assigned to various ensembles according to instrumentation and expertise. During each semester outstanding musicians from the San Francisco Symphony and the San Francisco Opera Orchestra will coach each ensemble on a periodic basis. Course culminates in a series of public performances. Admission by audition. May be repeated for credit.

**MUS 330 MUSICAL THEATRE PRODUCTION (1-3)**

A course devoted to the study and performance of operatic and musical theatre literature. Designed for singers, actors and others interested in Music Theatre. Maybe repeated for credit. Prerequisite: By audition.

**MUS 340 MUSICAL THEATRE SCENES WORKSHOP (1-3)**

A performance course designed to broaden student's familiarity with the opera and musical theatre repertoire. Students have input regarding literature and scenes. The class is open to all students. May be repeated for credit.

**MUS 342 HISTORY OF JAZZ (1-3)**

The study of jazz from its origins to the present. Listening to music is the core of the class; emphasis is on developing skill in recognizing and describing what happens in classic performances. The changing styles of jazz are related to the social and cultural context of the music in each style period.

**MUS 343 STUDIES IN MUSICAL GENRES (1-3)**

An in-depth study of a particular type of music. Course activities will include lecture, listening and in-class performances. Prerequisite: MUS 101, MUS 201 or consent of instructor. Satisfies GE category C1.

**MUS 344 STUDIES-SPECIFIC COMPOSERS (1-3)**

An in-depth study of the life and works of a single composer. Course activities will include lecture, listening and in-class performances. Prerequisite: MUS 101, 201 or consent of instructor. Satisfies GE category C1.

**MUS 346 STUDIES IN MUSIC THEORY (1-3)**

The detailed study of a particular theoretical system in music. May be repeated for credit with consent of the instructor.

**MUS 347 STUDIES IN WORLD MUSIC (1-3)**

The detailed study of the music of a particular country or area outside the Western European musical tradition. May be repeated for credit.

**MUS 350 SURVEY OF WORLD MUSIC (3)**

This class examines the world's musical cultures with an emphasis on musical repertoires and how they relate to social, cultural and religious contexts. Students are encouraged to show their musical talents and participate in learning a few melodies and rhythm. Satisfies GE, category C4 (Comparative Perspectives).

**MUS 353 INDIAN SINGING ENSEMBLE (1-2)**

Experience the joy of Indian singing as we explore the philosophical and spiritual concept of Nada Brahma (the universe is sound; music being eternal bliss). No requirements; bring your throat.

**MUS 359 AUDIO AND RECORDING PRODUCTION II (1)**

A continuation of Audio and Recording Production I. Prerequisite: MUS 159or by consent of instructor.

**MUS 370 MUSIC AND DANCE IN THE WORLD'S RELIGIONS (3)**

A survey of music and dance in the world's major religions as well as in the traditional religions of Africa, Asia and the Native Americans. Satisfies GE, category C4 (Comparative Perspectives).

**MUS 376 CHAMBER WIND ENSEMBLE (1-2)**

While the core instrumentation of the group is the traditional wind octet or harmoniemusik, the ensemble maintains a flexible instrumentation to accommodate a diverse and exciting repertoire. Original repertoire from composers such as Gabrieli, Strauss, Dvorak and Stravinsky form the core repertoire of this group comprised of select members from the Symphonic Wind Ensemble.

**MUS 377 BRASS ENSEMBLE (1)**

This ensemble is a vibrant group of interested trumpet, horn, baritone, trombone and tuba players who perform a wide array of pieces from Gabrieli antiphonal music to jazz works as well as music in the Philip Nones brass repertory. The group meets weekly and plays concerts on and off campus.

**MUS 378 PERCUSSION ENSEMBLE (1)**

An outgrowth of the Symphonic Wind Ensemble, the Percussion Ensemble performs a mixture of historically relevant repertoire as well as pieces of the modern repertory. The ensemble affords its members the chance to cultivate sensitive chamber music skills and to explore performance techniques on all the various percussion instruments.

**MUS 379 CONTEMPORARY JAZZ ENSEMBLE (1-2)**

Rehearsal and performance of literature from post-bebop through fusion, with different ethnic music, classical music, rock, and free improvisation. May be repeated for credit. A Latin music ensemble is also offered some semesters. Prerequisite: consent of instructor.

**MUS 389 JAZZ IMPROVISATION III (3)**

A continuation of MUS 289. Advanced chord-scale and chord substitution techniques for improvising on functional chord progressions. Prerequisite: MUS 289.

**MUS 389 JAZZ IMPROVISATION III (3)**

A continuation of MUS 289. Advanced chord-scale and chord substitution techniques for improvising on functional chord progressions. Prerequisite: MUS 289.

**MUS 390 JAZZ ORCHESTRA (1-2)**

The Big Band performs the best literature for the medium from the traditional swing era to modern big band arrangers. May be repeated for credit.

**MUS 391 CONCERT JAZZ ENSEMBLE (1-2)**

Rehearsal and performance of literature in traditional and contemporary jazz idioms. Repertory includes original arrangements especially designed for the ensemble by music faculty and students. May be repeated for credit. Prerequisite: consent of instructor.

**MUS 392 JAZZ PIANO II (1)**

Continuation of MUS 292. Prerequisite: MUS 292 or consent of instructor.

**MUS 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

CIP involves students in basic community problems, performing such tasks as tutoring, coaching, and performing for hospitals and schools. Students taking CIP through the Music Department must arrange for supervision by a Music Department advisor. Students in the music education concentration must see their advisor about special requirements. Cr/NC only.

**MUS 399 STUDENT INSTRUCTED COURSE (1-3)**

Topic differs each semester. Cr/NC only.

**MUS 400 MUSIC FOR THE CLASSROOM (2)**

Philosophy, concepts, and materials for music teaching in the classroom. The structure, nature, and function of music in children's lives. Prerequisite: MUS 105 or equivalent or consent of instructor.

**MUS 401 CONDUCTING TECHNIQUE (2)**

An introduction to the basics of conducting with emphasis on baton technique and development of effective conducting and rehearsal techniques common to instrumental and vocal ensembles.

**MUS 402 CHORAL CONDUCTING AND METHODS (3)**

Basic conducting techniques, and techniques of choral rehearsal and performance. Prerequisite: MUS 401 or consent of instructor.

**MUS 403 INSTRUMENTAL CONDUCTING AND METHODS (3)**

Conducting techniques through the study of selected instrumental works. The course will include score-reading at the piano. Prerequisites: MUS 402 or consent of instructor.

**MUS 410 THEORY IV: 20TH CENTURY TECHNIQUES (3)**

A study of melodic, rhythmic, harmonic and formal organization of 20th century music. Prerequisites: MUS 210, 220, 150 and 250 or consent of instructor.

**MUS 410 THEORY IV: 20TH CENTURY TECHNIQUES (3)**

A study of melodic, rhythmic, harmonic and formal organization of 20th century music. Prerequisites: MUS 210, 220, 150 and 250 or consent of instructor.

**MUS 412 JAZZ COMPOSITION (3)**

Study of form and techniques for jazz composition. Students will compose five tunes. Prerequisites: MUS 312 or 389.

**MUS 415 VOICE METHODS (1)**

Group work and teaching techniques in the fundamentals of singing. Problems of tone production, breath control, diction, repertory, and interpretation. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

**MUS 418 GUITAR METHODS (1)**

Basic performing and teaching techniques on guitar. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

**MUS 420 EAR TRAINING IV (2)**

Continuation of Ear Training III. Begins with Mozart, and proceeds through Beethoven and the Romantics into music of the twentieth century. Emphasizes accurately singing and hearing music of increasing chromatic complexity, using an intervallic approach to augment tonal hearing. Listening and analysis activities focus upon selection of great works from Mozart to Stravinsky. Prerequisite: MUS 320 or equivalent.

**MUS 420 EAR TRAINING IV (2)**

Continuation of Ear Training III. Begins with Mozart, and proceeds through Beethoven and the Romantics into music of the twentieth century. Emphasizes accurately singing and hearing music of increasing chromatic complexity, using an intervallic approach to augment tonal hearing. Listening and analysis activities focus upon selection of great works from Mozart to Stravinsky. Prerequisite: MUS 320 or equivalent.

**MUS 422 STRING METHODS (1)**

Basic performing and teaching techniques on orchestral string instruments. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

**MUS 423 WOODWIND METHODS (1)**

Basic performing and teaching techniques on band and orchestral woodwind instruments. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

**MUS 424 BRASS METHODS (1)**

Basic performing and teaching techniques on standard brass instruments. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

**MUS 425 COMPOSERS FORUM (1)**

Individual projects in creative work. Individual projects in jazz performance.

**MUS 426 JAZZ FORUM (1)**

Individual projects in creative work. May be repeated for credit. Prerequisite: consent of instructor.

**MUS 429 PERCUSSION METHODS (1)**

Basic performing and teaching techniques on standard percussion instruments. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

**MUS 433 PRIVATE INSTRUCTION-STRINGS (1)**

Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 133 and audition.

**MUS 434 PRIVATE INSTRUCTION-WOODWINDS (1)**

Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 134 and audition.

**MUS 437 PRIVATE INSTRUCTION-BRASS (1)**

Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 137 and audition.

**MUS 438 PRIVATE INSTRUCTION-PERCUSSION (1)**

Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 138 and audition.

**MUS 439 PRIVATE INSTRUCTION-KEYBOARD (1)**

Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 139 and audition.

**MUS 440 VOCAL/INSTRUMENTAL PROFICIENCY JURY (1)**

A performance illustrating proficiency as well as knowledge of the technique and tone production in voice, on guitar, and on string, woodwind, brass and percussion instruments. For students in the music education concentration or the California Music Subject Matter Competency Program. Cr/NC only. Prerequisites: MUS 415, 418, 422, 423, 424 and 429.

**MUS 441 PRIVATE INSTRUCTION-VOICE (1)**

Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 141 and audition.

**MUS 442 PRIVATE INSTRUCTION - INDIAN SINGING (1)**

Private instruction in Indian classical singing. Maybe repeated for credit. Prerequisite: MUS 353 and consent of instructor.

**MUS 443 PRIVATE INSTRUCTION-GUITAR (1)**

Private instruction for advanced students. May be repeated for credit. Prerequisites: MUS 143 and audition.

**MUS 445 PRIVATE INSTRUCTION-COMPOSITION (1-2)**

Private instruction in composition for advanced students. May be repeated for credit. Prerequisite: MUS 425 or consent of instructor.

**MUS 446 PRIVATE INSTRUCTION-CONDUCTING (1-2)**

Private instruction in conducting for advanced students. May be repeated for credit. Prerequisite: audition.

**MUS 447 APPLIED MUSIC STUDIES (1)**

Advanced individual study of instrument or voice. Instructor permission required. May be repeated for credit.

**MUS 448 VOCAL ACCOMPANYING WORKSHOP (1-2)**

This course offers pianists and vocalists an opportunity to explore and perform their shared repertoire. Emphasis will be placed on developing communication skills between performers and on improving sight reading proficiency. The course culminates in a recital presented by class members.

**MUS 451 REPERTORY CLASS-PRIVATE INSTRUCTION (1)**

This class provides an opportunity for students to perform their repertory in a group setting. Private instruction faculty coach students in technique, interpretation, and presentation. Classes are normally offered for voice and classical instrumental. May be repeated for credit. Prerequisite: concurrent enrollment in the appropriate private instruction course.

**MUS 453 ADVANCED INDIAN SINGING ENSEMBLE (1)**

This course is designed for advance singers of Indian classical music. It is open to those who have taken 3 semesters of MUS 321/353 or the consent of the instructor.

**MUS 460 TEACHING ASSISTANT IN MUSIC (1-4)****MUS 480 SPECIAL TOPICS (1-4)**

Topic will vary from semester to semester. Consult Schedule of Classes for current offering.

**MUS 481 SPECIAL TOPICS WORKSHOP (1-3)**

Activity will vary from semester to semester. Consult Schedule of Classes for current offering.

**MUS 489 JAZZ IMPROVISATION IV (3)**

Continuation of MUS 389. Advanced rhythmic concepts and techniques for improvising on contemporary modal and free-form compositions. Prerequisite: MUS 389.

**MUS 490 SENIOR PROJECT (1-3)**

A course in which the work of the music major reaches culmination. Group or individual projects in research, analysis, theory, or performance that bring together all the skills and proficiencies developed by the student. For the music education concentration the project is a summative portfolio. Prerequisites: completion of all music major requirements or consent of instructor.

**MUS 491 SENIOR RECITAL (2-3)**

The preparation and presentation of a senior recital is the culminating activity for music majors in the performance concentration. Prerequisites: completion of all performance concentration requirements or consent of instructor.

**MUS 495 SPECIAL STUDIES (1-4)**

Individualized studies in topics beyond the scope of the regular curriculum. Contract with an instructor, specifying work to be completed. A regular schedule of contract hours is necessary. Prerequisite: consent of instructor.

**MUS 499 INTERNSHIP (1-4)**

Work experience in organizations and projects related to music. Prerequisites: appropriate preparation for successful completion of internships and consent of instructor.

**MUS 500 INTRODUCTION TO GRADUATE STUDY (3)**

A course in the methods and materials for research in music. Proficiency in an imaginative use of the resources for accessing musical data will be developed through projects in bibliography. Required of first-semester graduate students.

**MUS 595 SPECIAL STUDIES (1-4)**

Individualized studies in topics beyond the scope of the regular curriculum. Contract with an instructor, specifying work to be completed. A regular schedule of contract hours is necessary. Prerequisite: consent of instructor.

## **Native American Studies (NAMS)**

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### **NAMS 200 INTRODUCTION TO NATIVE AMERICANS (3)**

A survey of the various geographical environments of tribes living in North America. The emphasis is upon precontact cultures, but includes cultural and historical changes to tribes during the settling of this country by Europeans. Satisfies GE category D1 (Individual and Society), and the ethnic studies requirement.

### **NAMS 205 INTRODUCTION TO NATIVE AMERICAN ARTS (3)**

A general introduction of the traditional American Indian arts in the United States. The course will include information on the culture that produced the art forms. Craft projects or research paper by the student will be a part of the class requirements. Satisfies GE, category C1 (Fine Arts), and the ethnic studies requirement.

### **NAMS 300 EXPERIMENTAL COURSES (1-4)**

Content varies from semester to semester. The majority of these courses are designed as short-term field excursions into various areas of the country where American Indians lived or are living.

### **NAMS 305 NORTH AMERICAN INDIAN HISTORY (4)**

A survey-lecture course. It will chronologically follow the economic, military, social, and legal relationships between North American Indians and Euro-American colonists. Special emphasis will be placed on the relations with the federal and state governments from the Colonial period to the 20th century.

### **NAMS 338 NATIVE AMERICANS AND THE CINEMA (3)**

This course examines and critiques the depiction of Native Americans in American cinema, video, and documentary films. These media efforts are analyzed through an exploration of stereotypes, literature, and other popular influences found in American society. Documentary films by non-Indian and Native American film makers will be examined and analyzed. Satisfies GE, category C1 (Fine Arts), and the ethnic studies requirement.

### **NAMS 346 PHILOSOPHIC SYSTEMS AND SACRED MOVEMENTS IN NATIVE NORTH AMERICA (3)**

Only by common participation in religious cults and philosophic systems have the separate Indian tribes of North America ever united. This proposition will be critically examined by analysis of prehistoric and contemporary American Indian religious movements and philosophic systems. Precontact native religious systems will be surveyed. Archaeoastronomy and native art forms will be investigated as expressions of religious activities. Postcontact religious reorganization such as the ghost dance will be studied. Satisfies GE, category C3 (Philosophy and Values), and the ethnic studies requirement.

### **NAMS 354 NATIVE AMERICAN LITERATURES (3)**

A discussion of traditional myths and songs as well as contemporary literary works of Native Americans. Satisfies GE, category C2 (World Literature), and the ethnic studies requirement.

### **NAMS 399 SELECTED TOPICS (1-3)**

This student-instructed course is offered periodically on various Native American subjects. The course is offered when instructors are available with unique knowledge and skill not available through the regular faculty.

### **NAMS 400 SPECIAL TOPICS (1-4)**

Special topics courses in Native American studies are offered occasionally, depending on student interests and faculty availability. Typically, courses might be: Native American Law, Health Issues in the Native American Community, and Native American Tribal Government.

### **NAMS 410 SEMINAR: INDIVIDUAL NATIVE AMERICAN CULTURE (4)**

An in-depth focus on the cultural experience of an individual Native American people.

### **NAMS 412 NATIVE CALIFORNIA HISTORY AND CULTURE (4)**

A survey of the cultures and histories of Native California Indians. Special emphasis on local Indians.

### **NAMS 414 NATIVE AMERICAN CULTURES OF AMERICA SW (4)**

An examination of the prehistory, ecology, settlement patterns, social organization, cosmological and ritual systems, material culture, mythology, language and status of Southwestern Native Americans.

### **NAMS 418 REGIONAL HISTORICAL STUDIES (4)**

Seminar. Provides students with an opportunity to pursue various regional studies of Indian groups from precontact times to the present. Prerequisite: NAMS 200 or consent of instructor.

### **NAMS 420 FUNDAMENTALS OF NATIVE AMERICAN EDUCATION (1-4)**

This course is appropriate for those who will be teaching Native American students K-12 or those who wish to develop curriculum materials about American Indians. A survey of North American Indian educational history will be followed by practical projects stressing appropriate teaching strategies.

### **NAMS 430 ADVANCED NATIVE AMERICAN ART WORKSHOP (1)**

Emphasizes the practical application of traditional and contemporary Native American art forms, designs, and techniques. This course attempts to advance the students' utilization of and appreciation for the various methods and skills of Native American arts while promoting individual creativity.

### **NAMS 440 THE CONTEMPORARY NATIVE AMERICAN (4)**

A seminar on the status of Native Americans in modern American society, including economic, political, and legal aspects; the role of the federal government; and the emergence of pan-Indianism and political activism.

### **NAMS 442 CONTEMPORARY AFFAIRS: NATIVE AMERICANS OF CALIFORNIA (3-4)**

An intensive study of the contemporary problems, issues, and developments involving American Indians in California.

### **NAMS 495 SPECIAL STUDIES (1-4)**

Prerequisites: An upper-division core course; approval of supervising faculty member and approval of program coordinator.

## **Nursing (NURS)**

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### **NURS 200 PROFESSIONAL CONCEPTS IN NURSING (3)**

Seminar, 3 hours. Professional, Philosophical and theoretical foundations of nursing are explored. Basic concepts of health are examined and issues common to all aspects of professional nursing are introduced. Corequisites: NURS 205 and 210A.

### **NURS 203 BASIC PHARMACOLOGY FOR NURSES (2)**

Seminar, 2 hours. Introduction to principles of pharmacology and to the nurse's role in the safe administration of medications. Content includes basic pharmacological principles, physiological actions, therapeutic and adverse effects of major drug classifications and routes of administration, basics of drug calculations, and patient education.

### **NURS 205 SKILLS IN PROFESSIONAL NURSING PRACTICE (3)**

Lecture 2 hours, Laboratory 3 hours. Concepts, processes and practices are offered in a variety of classroom and laboratory activities using the nursing process. The nursing laboratory emphasizes the role of the nurse and the opportunity to acquire and demonstrate communication and psychomotor skill proficiency. Laboratory fee payable at time of registration.

### **NURS 206 PSYCHIATRIC/MENTAL HEALTH NURSING (3)**

Seminar 2 hours, Laboratory 3 hours. Students are introduced to the principles of mental health and illness. Nursing care therapeutics with populations experiencing mental health, stresses and psychiatric illnesses are examined and applied.

### **NURS 208 NURSING APPLICATIONS OF PATHOPHYSIOLOGY (3)**

Seminar, 3 hours. Pathophysiology in medical-surgical nursing is presented as a foundation for caring for the adult patient. Health and disease processes are studied as they apply to the clinical care of the adult patient.

### **NURS 210A CLINICAL PRACTICUM I (4)**

Clinical Laboratory, 12 hours. Students apply the nursing process and theoretical principles to the care of adults across the lifespan in health care settings. Students develop the ability to recognize health problems and implement professional standards of care. Corequisites: NURS 200, 203 and 205.

### **NURS 210B CLINICAL PRACTICUM II (4)**

Applies theoretical principles of nursing care to individuals across the lifespan in acute care and psychiatric health care settings. Emphasis is on providing care to persons experiencing changes in health and illness. Prerequisites: NURS 200, 205, 210A.

### **NURS 300 INTRODUCTION TO EVIDENCE-BASED PRACTICE (3)**

Seminar, 3 hours. Discusses the nature of scholarly inquiry to locate, critically appraise and use research and practice guidelines to inform evidence-based practice. Approaches to research in nursing are explored. Students critically appraise and interpret studies and practice guidelines to enhance their understanding of the relationship between theory, practice and research. Prerequisites: Statistics.

### **NURS 305 ASSESSMENT AND CLINICAL DECISION MAKING (3)**

Seminar, 2 hours; laboratory, 3 hours. Concepts and skills of human health assessment basic to clinical decision making within the caring process are expanded. Interview skills focus on eliciting an accurate and thorough history, taking into account multiple dimensions that characterize the person. Physical examination skills are further developed to provide a database for nursing diagnosis and planning nursing care. Laboratory fee payable at time of registration. Prerequisite: acceptance to RN-BSN program.

### **NURS 312 BACCALAUREATE NURSING PERSPECTIVES I (4)**

Explore contemporary perspectives in baccalaureate nursing with emphasis on professionalism, theory and evidence-based practice, communication, client education, critical thinking, leadership and professional development.

### **NURS 313 BACCALAUREATE NURSING PERSPECTIVES II (4)**

Seminar, 4 hours. Application of baccalaureate nursing perspectives to women's and children's health care, adult complex care and mental health care. Explores advocacy and care of individuals, families and communities. Pre/Co-requisite: NURS 312.

### **NURS 340 WOMEN'S HEALTH IN THE EXPANDING FAMILY (2-3)**

Seminar, 3 hours. Principles and concepts of wellness and illness in childbearing and child-rearing families. Preventive and therapeutic aspects of nursing care for the pregnant and post-partum client. Use of community resources introduced. Prerequisites: all 200-level nursing major courses; concurrent enrollment in NURS 342 and 345.

### **NURS 342 CHILD HEALTH IN THE EXPANDING FAMILY (2-3)**

Seminar, 3 hours. Principles and concepts of child wellness and illness in the context of the family. Preventative and therapeutic aspects of nursing care of the infant, child, and adolescent are emphasized. Prerequisites: all 200-level nursing courses; concurrent enrollment in NURS 340 and 345.

### **NURS 345 CLINICAL PRACTICUM WITH EXPANDING FAMILIES (3-4)**

Clinical Laboratory, 12 hours. Applies the nursing process to child-bearing and child-rearing families. Clinical experiences focus on principles and concepts of health promotion and maintenance to families in various phases of the health and illness continuum. Prerequisite: all 200-level nursing major courses. Corequisite: NURS 340 and 350. Malpractice insurance required.

### **NURS 348 FOUNDATIONS OF OBSTETRICAL AND PEDIATRIC NURSING (6)**

Challenge credit for obstetrical and pediatric nursing care principles and practice content in curriculum for licensure. Open only to matriculated RN-BSN students who have passed the NCLEX-RN. Prerequisite: NURS 312 and NURS 313.

### **NURS 380 CARE OF INDIVIDUALS AND FAMILIES WITH COMPLEX NEEDS (3)**

Seminar, 3 hours. Applies the nursing process to individuals and families with complex health care needs, emphasizing care of older adults. Prerequisite: NURS 340, 342 and 345. Corequisite: NURS 385.

### **NURS 385 CLINICAL PRACTICUM IN CARE OF INDIVIDUALS AND FAMILIES WITH COMPLEX NEEDS (3)**

Clinical Laboratory, 9 hours. Applies the nursing process to individuals and families with complex health care needs, emphasizing care of older adults. Clinical experience originates in acute care settings and includes discharge planning, case management and leadership roles of the nurse. Corequisite: NURS 380.

### **NURS 388 FOUNDATIONS OF PSYCHIATRIC AND COMPLEX NURSING CARE (7)**

Challenge credit for advanced medical-surgical and psychiatric nursing care principles and practice in curriculum for licensure. Open only to matriculated RN-BSN students who have passed the NCLEX-RN. Prerequisites: NURS 312 and NURS 313.

**NURS 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

CIP involves students in community problems related to the promotion of health and the prevention of illness. Credit may be given for such activities as volunteer work in health agencies and planning and participating in community health projects. A total of 6 units may be applied toward a degree. May be taken by petition only. Prerequisites: admission to the nursing major, consent of advisor and department chair.

**NURS 396 SELECTED TOPICS IN NURSING (1-3)**

A single topic or set of related topics not ordinarily covered by the nursing major curriculum (e.g., sexuality, death and dying, health planning and policy). The course may be repeated for credit with different topics, to a maximum of 12 units. Prerequisite: consent of instructor.

**NURS 404 COMMUNITY HEALTH NURSING THEORY (3)**

Seminar, 3 hours. Explores population-focused nursing in the context of promotion, protection, and improvement of health for individuals, families and communities. Determinants of health and operations of the health care system will be discussed with an emphasis on social, cultural, and environmental factors, which impact the health of the greater community. Prerequisite: NURS 300.

**NURS 405 COMMUNITY HEALTH NURSING PRACTICUM (3)**

Clinical practice, 9 hours. Students apply knowledge and skills from nursing and public health science to provide clinical care for client, individuals and families in their communities. Cultural diversity and vulnerable populations are emphasized while exploring the community as client. Pre/Corequisite: NURS 404.

**NURS 415 THEORY IN NURSING PRACTICE (1)**

Seminar, 1 hour. Theories and concepts from nursing and related sciences are applied to a selected client population in a clinical setting. A learning contract for senior clinical study is developed by each student in a selected area of nursing practice that includes client care, research and theory, legal and ethical issues, standards of practice, and leadership and management in the clinical setting. Students must expect to complete NURS 425 Senior Clinical Study within the next two semesters.

**NURS 425 SENIOR CLINICAL STUDY (4)**

Clinical Laboratory, 12 hours. Clinical application of Humanistic Nursing Theory. Concepts from nursing and from related sciences are applied in the nursing care of selected populations. Informed choices through critical analysis of evidence-based practice and moral and ethical standards are applied to nursing care. Integration and synthesis of concepts, personal development and leadership/management abilities are expanded through professional nursing practice. Prerequisite: NURS 415 within past two semesters.

**NURS 440 NURSING LEADERSHIP AND MANAGEMENT (3)**

Lecture/discussion, 3 hours. Formulates a theoretical foundation for the process of nursing leadership and management. Attitudes and behavioral principles of effective leadership are developed and applied. Problem-solving strategies are developed as management problems are analyzed. Effects of the management process on patterns of health care practice and delivery are critically evaluated. Prerequisite: completion of all 300-level course work.

**NURS 450 NURSING IN A SOCIOPOLITICAL ENVIRONMENT (3)**

Seminar, 3 hours. Explore historical and current sociopolitical issues in nursing and health care and their impact on the practice and profession of nursing. Professional accountability and effective sociopolitical advocacy are emphasized. Prerequisite: completion of all 300-level course work.

**NURS 480 HEALTH, SEXUALITY, AND SOCIETY (3)**

Seminar, 3 hours. Examines issues in human sexuality as they relate to the health and well-being of self and others. A range of human sexual experience will be explored. Satisfies GE, category E. Open to non-nursing majors. Prerequisite: upper-division standing.

**NURS 495 SPECIAL STUDIES (1-4)**

Individual or group study, under guidance of an advisor, of special issues in nursing. Prerequisites: admission to the nursing major and/or consent of instructor and department chair. Specific guidelines available from the nursing department.

**NURS 497 NURSING EXTERNSHIP (2-6)**

Clinical Laboratory, 6 to 18 hours. Work study course offered in cooperation with selected clinical agencies. Students apply previously learned nursing theory and clinical skills in assigned patient care setting under the supervision of selected Registered Nurse preceptors. The course is offered for 2-6 units. Cr/NC only. Prerequisites: NURS 385 and permission of instructor.

**NURS 500A SCHOLARLY INQUIRY (3)**

Seminar, 3 hours. Linkages between theory, research and advanced practice are developed to provide the student with the necessary skills to critically analyze and apply research.

**NURS 500B SCHOLARLY INQUIRY (3)**

Seminar, 3 hours. Students apply the knowledge and skills gained in NURS 500A through scholarly activities and projects in community settings.

**NURS 501 ASSESSMENT AND MAINTENANCE OF THE INDIVIDUAL, FAMILY AND COMMUNITY (3)**

Seminar, 3 hours. Expands the students' ability to identify and promote behaviors that enhance the health of self, individuals and families. Principles from epidemiology, family health, psychology, sociology, change theory and related therapies. Focuses on rapid identification of physical, mental, emotional and spiritual health risks and modification of those risks as part of primary care.

**NURS 502 PATHOPHYSIOLOGY BASIS OF NURSING CARE (3)**

Seminar, 3 hours. Physiological and pathophysiological processes are examined and integrated within the context of the human experience.

**NURS 504 POLICY AND POLITICS OF HEALTH CARE (2)**

Seminar, 2 hours. Course reviews the principal ways health care is organized and financed, and identifies current issues in health care organization and financing. Analytic perspectives on health and health care economics are emphasized. Prerequisite: graduate nursing student or consent of instructor.

**NURS 505 ETHICS IN HEALTHCARE (2-3)**

Seminar, 3 hours. Bioethics in healthcare is critically discussed from both a theoretical and practical viewpoint. Separate modules address various ethical aspects of healthcare delivery related to clinical, educational and administrative topics.

**NURS 506 SYSTEMS MANAGEMENT IN HEALTHCARE (4)**

Seminar, 4 hours. Systems Management utilizes systems theory in understanding organization behavior and change. The content of the course includes selected issues in organization environment, structure, culture, human resources, politics and system leadership. The process of the course will focus on effecting organization change.

**NURS 507 COMMUNITY HEALTH NURSING THEORY (3)**

Seminar, 3 hours. Explores population-focused nursing in the context of promotion, protection, and improvement of health for individuals, families and communities. Determinants of health and operations of the health care system will be discussed with an emphasis on social, cultural, and environmental factors which impact the health of the greater community.

**NURS 509 ADVANCED ASSESSMENT AND CLINICAL DECISION MAKING (3)**

Seminar, 3 hours, Laboratory 3 hours. Advanced concepts and skills in human health assessment are presented in relation to clinical decision-making. Interview skills focus on eliciting an accurate and thorough history, taking into account multiple dimensions of the person. Exam skills are further developed to provide a database for advanced diagnosis and care. Lab fee. Open to the individuals entering the Family Nurse Practitioner program.

**NURS 510 PROFESSIONAL ISSUES AND LEADERSHIP (2-3)**

Seminar, 2 or 3 hours. Current nursing issues in advanced practice, professionalism, and nursing education are examined from a leadership perspective. Focuses on expanding nursing power and influence in professional situations. Faculty and students collaborate in the identification of contemporary issues.

**NURS 514 COMMUNITY HEALTH NURSING PRACTICUM (3)**

Clinical practice, 9 hours. Students apply knowledge and skills from nursing and public health science to provide clinical care of clients, individuals and families in their communities. Cultural diversity and vulnerable populations are emphasized while exploring the community as client. Pre/Corequisite: NURS 507.

**NURS 515A FINANCIAL MANAGEMENT IN HEALTH CARE ORGANIZATIONS I (3-4)**

Seminar, 3 or 4 hours. Provides theory and experience with the elements of budget development. The course is divided into segments: 1) pre-budget, 2) budget preparation and 3) monitoring variance. Students select a clinical site and mentor to provide experience with budget preparation and monitoring. DEMSN students take this course for 3 units; all other Leadership and Management students take this course for 4 units.

**NURS 515B FINANCIAL MANAGEMENT IN HEALTH CARE ORGANIZATIONS II (4)**

Seminar, 3 hours. Continuation of NURS 515A provides hands-on experience with budget control and variance.

**NURS 516 PATHOPHYSIOLOGICAL AND PHARMACOLOGICAL ISSUES IN CLINICAL NURSING (3)**

Seminar, 3 hours. Advances knowledge of pathophysiological and pharmacological issues in support of the clinical nurse leader role functions of advocate, educator, systems analyst/risk anticipator, clinician and outcomes manager.

**NURS 522A INSTRUCTION PROCESS IN HIGHER EDUCATION I (4)**

Seminar, 4 hours. First in a series on current teaching strategies in higher education. Students will explore the core competencies of nursing education including theoretical foundations of teaching/learning, curriculum development, learning environments, diverse classrooms, technology/curriculum delivery systems, simulation, clinical coaching, promotion and assessing critical thinking and evaluation in the academic arena.

**NURS 522B INSTRUCTIONAL PROCESS IN HIGHER EDUCATION II (4)**

Seminar, 4 hours. The second in a series of two courses on current teaching strategies in higher education. Students will explore the core competencies of nursing education including theoretical foundations of teaching/learning, curriculum development, learning environments, diverse classrooms, technology/curriculum delivery systems, simulation, clinical coaching, promotion and assessing critical thinking and evaluation in the academic arena. Prerequisite: NURS 522A.

**NURS 525 CLINICAL PRACTICUM (3)**

Clinical laboratory, 9 hours. Clinical application of theories and concepts from nursing and related sciences is applied in the nursing care of selected populations. Research-based knowledge and pertinent theoretical frameworks are utilized to respond to complex and specific health care needs of these populations. Integration and synthesis of concepts, personal development and leadership/management abilities are expanded through professional nursing practice.

**NURS 526 CNL PROFESSIONAL ROLE DEVELOPMENT (2)**

Provides leadership in the application of the nursing process to client care, organizational processes and/or systems, improving outcomes at the unit or service level.

**NURS 530 NURSING LEADERSHIP THEORY (4)**

Seminar, 4 hours. Theories of organizations and management are analyzed in relation to health care and nursing care delivery systems. Emphasis is placed on analyzing and evaluating the relationship between clinical nursing practice and organizational management. Organizations are analyzed according to structure, functions and organizational behaviors. Prerequisites: concurrent enrollment in NURS 535A.

**NURS 530 NURSING LEADERSHIP THEORY (4)**

Seminar, 4 hours. Theories of organizations and management are analyzed in relation to health care and nursing care delivery systems. Emphasis is placed on analyzing and evaluating the relationship between clinical nursing practice and organizational management. Organizations are analyzed according to structure, functions and organizational behaviors. Prerequisites: concurrent enrollment in NURS 535A.

**NURS 535A RESIDENCY (3)**

Field Work, 9 hours. Focus is on the synthesis of theoretical nursing knowledge and role development in areas of education, management or clinical nurse leader. Select assignments provide for practice with a preceptor in a designated practice or educational setting.

**NURS 535B RESIDENCY (2)**

Field Work, 6 hours. Continues from N535A with a focus on the synthesis of theoretical nursing knowledge and role development in areas of education, management or clinical nurse leader. Select assignments provide for practice with a preceptor in a designated practice or educational setting. . Pre-requisite/ Co-Requisite: N535A.

**NURS 536 CNL PROFESSIONAL ROLE DEVELOPMENT (2)**

Clinical residency informing and demonstrating the clinical nurse leader role functions of advocate, member of profession, team manager, information manager, systems analyst/risk anticipator, clinician, outcomes manager and educator. Prerequisites: RN licensure and completion of N506, N502, N509, N507, N515A, N500A, N500B, and N514.

**NURS 540A PATHOPHYSIOLOGICAL CONCEPTS IN DIAGNOSIS AND TREATMENT I (2)**

Seminar, 2 hours. Develops a pathophysiological conceptual foundation for the diagnosis and management of common acute and chronic illnesses in advanced primary care nursing practice. Research and theory from various disciplines are used to evaluate unique interaction patterns of person and environment as a basis for selecting strategies to promote health and minimize the effects of illness. Emphasizes interdisciplinary aspects of primary health care through partnerships with patients as a basis for collaboration, consultation and referral.

**NURS 540B PATHOPHYSIOLOGICAL CONCEPTS IN DIAGNOSIS AND TREATMENT II (4)**

Lecture/discussion, 4 hours. Further develops a foundation for the diagnosis and management of common, yet more complex, acute and chronic illness in advanced primary care nursing practice. Research and theory from various disciplines are used to evaluate unique interaction patterns of person and environment as a basis for selecting strategies to promote health and minimize the effects of illness. Continues to emphasize the interdisciplinary aspect of primary health care through partnerships with patients as a basis for collaboration, consultation and referral. Prerequisite: NURS 540A.

**NURS 549 HEALTH MAINTENANCE PRACTICUM (3)**

Clinical Laboratory, 9 hours. The course reviews health assessment of the adult and introduces assessment of the well-child and healthy pregnant woman. The course correlates with and supports the student in applying the theoretical concepts of health maintenance from NURS 501. The course provides the student with a comprehensive understanding of health promotion and disease prevention in clients across the life span. The course provides the students with the skills to evaluate the health status of a client taking into account the unique dimensions of a person including culture, ethnicity, socioeconomic status, educational status and religious and spiritual status when developing a health maintenance plan. Prerequisites: acceptance into family nurse practitioner program; concurrent enrollment in NURS 550A and previous or concurrent enrollment in NURS 501 and 540A. Laboratory fee payable at time of registration.

**NURS 550A FNP PRECEPTORSHIP I (2)**

Clinical preceptorship, 6 hours. Beginning clinical practice in primary care settings is implemented. Specialized knowledge and skills are utilized to assess physical, emotional, social, cultural and spiritual needs of patients. Concepts from various disciplines are integrated to provide a framework for developing and applying strategies for health promotion and illness management. Begins to develop advanced nursing role identity as FNP. Prerequisites: concurrent enrollment in NURS 549; previous or concurrent enrollment in NURS 501, 540A and 552. Laboratory fee payable at time of registration.

**NURS 550B FNP PRECEPTORSHIP II (5)**

Clinical preceptorship, 15 hours. Continued implementation of clinical practice in primary care settings. Further develops and expands FNP clinical judgment and practice skills in family primary care. Research findings and theory-based knowledge are applied to formulating diagnoses and management plans. Personal and professional parameters of the nurse practitioner role are examined. Prerequisite: NURS 550A. Laboratory fee payable at time of registration.

**NURS 550C FNP PRECEPTORSHIP III (4)**

Clinical preceptorship, 12 hours. Expands clinical practice in primary and extended care settings. Facilitates the integration of nursing and other theories and research in providing health care to individuals, families and groups. Conceptual perspectives are applied as a foundation for complex decision making in advanced nursing practice. Professional identity is expanded to integrate the multiple aspects of the nurse practitioner role. Prerequisites: NURS 540A/B, 549 and 550A/B.

**NURS 552 PHARMACOLOGY FOR FNPs (3)**

The principles of pharmaco-kinetics and pharmaco-dynamics provide the management of primary care conditions. The course emphasis is on safe, ethical and legal NP scope of practice and meets State criteria for the furnishing of drugs and devices by NPs, including Schedule II and DEA. Concurrent enrollment in NURS 540A or permission of instructor required.

**NURS 553 PHARMACOLOGY FOR CNL (2)**

Seminar, 2 hours. Develops a foundation for safe and effective management of pharmacological needs of clients with acute and chronic illness. Research findings and evidence-based knowledge are applied. Emphasizes the role of the nurse in critically evaluating medication effects, side effects and interactions, Principles of pharmacology relative to human physiology are reviewed.

**NURS 555 FNP EXPANDED CLINICAL PRACTICE (2-4)**

To enhance and expand clinical decision-making skills via extended clinical practice in preceptorship for Family Nurse Practitioner students. To synthesize and concisely report clinical findings via written or dictated chartnotes and verbal presentation to preceptor.

**NURS 578 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. Cr/NC only.

**NURS 595 SPECIAL STUDIES (1-4)**

Individually arranged course for one or more students who wish to pursue academic interests beyond the scope of the regular curriculum. Prerequisites: acceptance into master's program in nursing, and consent of instructor and department chair.

**NURS 596 SELECTED TOPICS IN NURSING (1-5)**

A single topic or set of related topics not ordinarily covered in the graduate curriculum (e.g., nursing administration and supervision, curriculum development and teaching methods). The course may be repeated for credit with a different topic, to a maximum of 12 units. Prerequisite: consent of instructor.

**NURS 599 MASTER'S THESIS (2-6)**

Research on thesis developed by student in consultation with nursing department faculty, and approved by the department and the student's Thesis Committee. Prerequisites: NURS 503A and approval of thesis prospectus.

## **Philosophy (PHIL)**

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### **PHIL 101 CRITICAL THINKING (4)**

Critical thinking is the best defense against intellectual trickery and self-delusion. It provides specific techniques and tools whereby we can avoid basic fallacies in our own thinking and detect them in the thought of others. Reasoning is a highly complicated human activity and cannot be satisfactorily studied in an intellectual vacuum. Hence, in this course, critical and uncritical thought are contrasted in the context of the world of human interests and activities - social, political and scientific. All of the basic "tricks" for persuading people to accept false premises and conclusions as true are systematically laid out and their detection practiced. Satisfies GE, category A3 (Critical Thinking).

### **PHIL 102 INTRODUCTION TO LOGIC (3)**

An introduction to the nature of contemporary systems of logic and their application. Students will learn how to abbreviate arguments in ordinary language, to deduce conclusions, and to locate fallacies. Recommended for students of the sciences, computer programming or mathematics, and the general student interested in the structure of arguments. Satisfies GE, category A3 (Critical Thinking).

### **PHIL 120 INTRODUCTION TO PHILOSOPHY (3)**

This course provides an introduction to some of the enduring questions of thinking: What is the nature of knowledge, of morality, of justice, of the self, of religion, of the search for wisdom, of reality? Topics and approaches may vary from section to section. Consult the department office for current information. Satisfies GE, category C3 (Philosophy and Values).

### **PHIL 200 PHILOSOPHICAL ISSUES (3)**

Students practice the techniques of reading and thinking critically, of expository writing, and of oral expression as they reflect together on philosophical issues. Recent topics have included Human Consciousness, Foundations of Greek and Chinese Thought, and Philosophical Issues in Global Climate Change. As students read and discuss the semester's topic, they will reflect consciously on the principles of thinking, speaking, and writing. This skills-oriented course reflects the assumption that we master skills more thoroughly when we are working on an interesting set of issues that are significant and relevant to our lives. Prerequisites: completion of GE categories A2 and A3.

### **PHIL 202 PROSEMINAR (3)**

This course is designed to help students acquire the skills required to successfully major or minor in philosophy, skills such as making effective oral presentations or critically evaluating demanding philosophical texts. The course will be based on an investigation of important contemporary or historical problems, and attention will be paid to both analytic and continental approaches to these problems. Possible topics of discussion are: postmodern critiques of science; moral relativism; arguments for the existence of god; the good life; the nature of emotions; the nature of beauty. Topics will vary from year to year depending on the interests of faculty. Prerequisites: current philosophy major or minor, or permission of instructor.

### **PHIL 204 APPLIED ETHICS (3)**

Applied ethics deals with ethical problems in different areas of human life in an interdisciplinary way. It includes, for instance, social and political ethics, computer ethics, medical ethics, bioethics, environmental ethics, business ethics, and it also relates to different forms of professional ethics. In a course in applied ethics a student can expect to explore the social and ethical impact of human behavior in specific areas of human endeavor, and can expect to learn how humans might apply normative rules in practical contexts.

### **PHIL 207 PHILOSOPHICAL MOVEMENTS (3)**

This course will explore philosophical movements and figures in an interdisciplinary fashion, which includes metaphysical, epistemological and axiological questions. Topics will vary but may include: Historical frameworks of philosophical thought, a focused survey of a particular philosophical figure, an examination of a particular school of thought, or the impact of philosophical thought on global history or culture. This class will be comparative in nature and class will be held in the lecture/seminar format.

### **PHIL 301 PHILOSOPHY OF SCIENCE AND TECHNOLOGY (3)**

Our lives are fundamentally shaped by Science and Technology, this fact has concerned some of the best minds in philosophy. Recently the scope and speed of scientific discovery and technological change has noticeably accelerated with the advent of information technology. Fantastic claims have been made in regards to our potential to understand through science and control through technology nearly every aspect of the natural world, including our own bodies and minds. This fundamental alteration of humanity must not go unexamined. In this class we will explore the great impacts science and technology has on our ability to know about the world, to understand our origins, and our efforts to promote or challenge our social values and the rise of technoethics. We will look at science and technology as a human practice that inherently fosters certain social values at the expense of others.

### **PHIL 302 ETHICS AND VALUE THEORY (3)**

An introduction to the philosophical analysis of ethics, morality and values, and a survey of the various systems of moral philosophy. The course covers such issues as: What is the good life? What considerations are relevant to making moral decisions? Are moral principles universal, or relative to a given society? How, if at all, can moral judgments be justified or moral disagreements resolved? Satisfies GE, category C3 (Philosophy and Values). Consult Schedule of Classes for topic to be studied. May be repeated (with a different focus) for credit.

### **PHIL 303 SOCIAL AND POLITICAL PHILOSOPHY (3)**

A philosophical examination of the Western tradition of social and political thought. The course will discuss topics such as justice and the ideal society, the question of justified revolution, the role of private property, freedom, individual rights and social welfare, different forms of government and the role of values in political deliberation.

### **PHIL 305 TRUTH (3)**

The aim of this course is to examine a wide sampling of answers to one of the great perennial questions of philosophy: what is truth? Depending on the interests of the faculty, possible readings might address, but are not limited to, the following thematic areas of interest: debates over truth from Socrates to Nietzsche and beyond; the meaning of truth in science, technology, religion and art; truth and power; non-Western approaches to truth; universal versus particular truth. This course is required of all students who are majoring in philosophy.

### **PHIL 306 CONTEMPORARY TOPICS IN PHILOSOPHY (3)**

This course introduces students to themes, thinkers, and debates within contemporary philosophy. While the specific emphasis may vary, the course engages with the open-ended problems and concerns that currently animate philosophical research. Students will be encouraged to think self-reflexively about the nature of philosophical thinking and the ways in which philosophy participates in public debates today. Topics may include globalization and financial crisis, democracy and violence, post-colonialism, neo-liberalism, and market-critique, religious pluralism, media and pop culture, law and social movements.

### **PHIL 307 PHILOSOPHICAL FIGURES (3)**

Selected each semester will be an important figure or grouping of figures, such as a school, movement, or noted debate, from the philosophical canon or outside the canon. The figure or figures' work will be introduced in such a way to historically contextualize their significance and place within the tradition.

### **PHIL 311 ROBOTICS AND THE TRANSHUMAN FUTURE (3)**

The field of Cognitive robotics presents us with profound philosophical questions. Can robots be used to model or replicate human cognitive functions? How would robust robotic artificial intelligence change the world we live in? What would it mean to be human in a fully automated world? To begin to answer these questions we will create simple mechanical reasoning devices and discuss their relevance to philosophical theories of life and mind. We will use LEGO beams, plates, gears, motors, and a RCX micro controller board programmed in the LEGO or NQC (Not Quite C) language along with various sensors and motors to construct small autonomous robots. These robots will be used to try to recreate and explore the strengths and weaknesses of some recent experiments in the field of cognitive robotics.

### **PHIL 313 ETHICS IN SCIENCE, ENGINEERING, AND INFORMATION TECHNOLOGY (3)**

Advanced sciences and high technologies constantly challenge our notions of ethics and morality. In this class we will look at ethical theories that seek to give guidance to scientists, engineers, and other technologists whose work is not only changing the way we live our lives but also our very understanding of life and our place in the universe. Students will look at case studies on topics such as; biotechnology, ethical decision making in the technological design process, engineering disaster analysis, ethics and information technology, technology design and its impact on the traditional social contract.

### **PHIL 315 EXISTENTIALISM (3)**

Existentialism points to the philosophical significance of human existence itself: to do philosophy means to take oneself seriously as an embodied, finite subject, existing in the world and relating to other subjects. Existentialist thought is both a historical movement in philosophy and also a methodology of philosophy. In this class, we will read several prominent existentialist philosophers and examine relevant themes such as the ethics of ambiguity, anxiety and dread, passion and desire, subjectivity and intersubjectivity, finitude and the divine, freedom and choice.

### **PHIL 325 ENVIRONMENTAL PHILOSOPHY (3)**

This course examines the philosophical problems that emerge with sustained reflection on environmental issues. These problems include: the moral standing of non-human entities, the status of "value" in nature, and the status of "nature" itself as something other than human, and vice versa.

### **PHIL 335 RELIGION, SPIRITUALITY, AND SOCIAL JUSTICE (3)**

In this seminar, we will explore the theme of spiritual or contemplative practice and its relations to social justice. More specifically, in order to probe the related questions--how is spiritual inwardness related to moral or political change, and how does contemplative practice lead to collaborative work for social justice?--this course will examine several key thinkers (eg. Kierkegaard, Arendt, Habermas) who give us resources for diagnosing the symptoms of violence and political apathy and who suggest different and complementary models of contemplative practice. The guiding question of the course will be: to what extent are forms of spiritual praxis--whether overtly religious, secular, or post-secular--inseparable from the search for non-violent means of social change?

### **PHIL 338 PHILOSOPHY OF EMOTION (3)**

A philosophical study of emotion, raising definitional, epistemological, meta physical, and value questions about emotion. The course includes the study of particular emotions, such as love, compassion, fear and pride, and makes use of information about emotions from the sciences and social sciences.

### **PHIL 340 BUDDHISM AND PHILOSOPHY (3)**

From its historical beginnings in India through to the schools of Japanese Zen and its eventual introduction to the West, Buddhism has had a distinctive and important impact on philosophical thought. The course will focus on the metaphysical, psychological, ethical, aesthetic, and practical dimensions of Buddhist teachings. Course content and historical emphasis will vary.

### **PHIL 350 TOPICS IN MORAL PHILOSOPHY (3)**

The aim of this course is to examine recent research and scholarship dealing with a wide range of problems and issues of concern to philosophers who are working in the area of practical philosophy. Some possible topics include: the roles of reason and emotion in moral motivation and judgement; the objectivity of value; the nature of moral identity; social dimensions to moral experience; advanced work in the theory of justice; the scope and limits of morality; the relationship between morality and self-interest; the character of rational action.

### **PHIL 355 AMERICAN PHILOSOPHY (3)**

This course surveys major themes and thinkers that define America's distinct philosophical tradition. Stress will be on the origins of "Pragmatism" as a philosophical movement. Our focus will be on the classical thinkers: Emerson, Thoreau, Peirce, James, Dewey, and Mead, and extend to cover the "Neo-Pragmatism" of Richard Rorty, Hilary Putnam, Cornell West, Stanley Cavell and others. Course content and emphasis may vary.

### **PHIL 360 PHILOSOPHY OF ART AND LITERATURE (3)**

An inquiry into the nature of art and literature. This course includes consideration of such topics as: The Possibility of Defining Art, Artistic Imagination, Creativity and Genius, the Purpose of Art, The Interpretation, and Critical Evaluation of Artworks and Works of Literature, Art and Literature in Everyday Life, and The Intriguing relationship between Philosophy and Literature.

### **PHIL 368 PHILOSOPHY AND FILM (3)**

A turn to film and film studies in search of contemporary culture's handling of philosophical themes. The course will develop strategies to study the hidden philosophical significance found within selections from film genres. Such study is indebted to the work of Stanley Cavell and his project to find in film the voices of a repressed American philosophy. Work from throughout critical theory will be considered.

### **PHIL 370 ADVANCED LOGIC (3)**

This course is designed for students who have taken an introductory course in logic. The goal of this course is twofold. First, to consider some more complex logical languages and systems, and second, to consider some of the more properly philosophical issues raised by discussion of those systems. Possible topics of discussion include modality and modal propositional languages; the probability calculus and its application to problems of induction and confirmation; decision theory, and some of the paradoxes of rationality that it seems to give rise to; and game theory, and its relation to economic and moral reasoning.

**PHIL 375 PHILOSOPHY OF LAW (3)**

This course represents an advanced introduction to seminal problems and themes in the philosophy of law. Of central concern will be two themes: 1) the differences and relation between law, morality, and politics; and 2) the nature of legal reasoning and modes of justification. The course will examine historical and cultural influences on legal institutions and introduce students to rival philosophical approaches such as legal positivism, natural law and legal realism. Specific course emphases and themes may vary depending on faculty interest.

**PHIL 378 FEMINIST PHILOSOPHY (3)**

This course is an introduction to feminist philosophy. In this class, we will see how the meaning of concepts such as the body, identity, gender, sexuality, and race have changed throughout the past two centuries by looking at central debates within feminist thought. Questions may include: how is it that we come to expect behavior, appearance, and actions to be essentially gendered? What are the implications of gender for how we understand sexuality and race? Where can we find resources for changing such expectations? How do we decide when such transformation is necessary and worth pursuing?

**PHIL 383 PHILOSOPHY OF LANGUAGE (3)**

A study of classical and current theories about the nature and functions of language, and about truth and meaning. Analysis of the relevance of philosophy of language to other branches of philosophy, linguistics, psychology and the social sciences. Analysis of philosophical issues in the language of fiction and poetry.

**PHIL 390 ADVANCED TOPICS IN PHILOSOPHY (1-6)**

Topics courses are intended to cover some particular aspect of a philosophical problem, a particular philosopher, or some philosophical issue not normally explored in detail in any of the standard course offerings. Topics include: philosophy in literature, American philosophy, phenomenology, advanced logic, philosophy of science, eastern world views and 20th century philosophy. May be repeated (with a different focus) for credit.

**PHIL 399 STUDENT INSTRUCTED COURSE (1-3)**

An introductory or advanced course designed by a senior or graduate student and taught under the supervision of faculty sponsor(s).

**PHIL 400 SENIOR SEMINAR (3)**

A seminar for students in their senior year. Topics vary from semester to semester. May be repeated for credit.

**PHIL 450 SENIOR THESIS (A) (3)**

Writing of a paper deemed acceptable by a faculty director and reader. Superior papers nominated for distinction will be defended before the philosophy faculty. Students wishing to be candidates for graduation "with distinction" are urged to write a thesis. Prerequisite to PHIL 452: PHIL 450. Prerequisites: advanced standing and instructor consent.

**PHIL 452 SENIOR THESIS (B) (3)**

Writing of a paper deemed acceptable by a faculty director and reader. Superior papers nominated for distinction will be defended before the philosophy faculty. Students wishing to be candidates for graduation "with distinction" are urged to write a thesis. Prerequisite to PHIL 452: PHIL 450. Prerequisites: advanced standing and instructor consent.

**PHIL 462 RESEARCH ASSISTANT IN PHILOSOPHY (1-6)**

Intended to give selected students experience in participating in the construction of a professor's research project. Prerequisites: advanced standing and a faculty invitation.

**PHIL 470 TEACHING ASSISTANT IN PHILOSOPHY (1-6)**

Intended to give students experience in assisting the instructor in a philosophy course by doing research and tutoring students in the class. Prerequisites: advanced standing and consent of the instructor.

**PHIL 495 SPECIAL STUDIES (1-3)**

Advanced individualized instruction and research with one or more members of the philosophy faculty. The course is designed to provide advanced students with an opportunity to do specialized research and study under strict faculty supervision. Prerequisite: consent of the instructor.

**PHIL 499 INTERNSHIP (1-4)**

Supervised training and experience in applied philosophy for advanced students in community organizations. Internship contracts are required. Cr/NC only. Prerequisite: consent of the instructor.

**PHIL 595 SPECIAL STUDIES IN PHILOSOPHY (1-6)**

Advanced research and writing. Students work under close supervision of faculty members. Subject matter variable. May be repeated for credit.

## Physics (PHYS)

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### PHYS 100 DESCRIPTIVE PHYSICS (3)

Lecture, 3 hours. A descriptive survey of the important principles of physics. Satisfies GE, category B1 or B3 (Physical Sciences).

### PHYS 102 DESCRIPTIVE PHYSICS LABORATORY (1)

Laboratory, 3 hours. Experimental demonstrations, exercises and field trips illustrating the methods by which physicists have learned what they claim to know about the world. Instruction is at the PHYS 100 level. Satisfies GE, category B1 or B3 (Physical Sciences) and GE laboratory requirements. Prerequisite: previous or concurrent enrollment in PHYS 100 or ASTR 100, or consent of instructor.

### PHYS 114 INTRODUCTION TO PHYSICS I (4)

Lecture, 4 hours. The first of three basic sequential courses in physics for science and mathematics majors. Introduction to vectors; classical mechanics, including particle dynamics and fluid mechanics; simple harmonic motion; thermodynamics and kinetics. Satisfies GE, category B1 or B3 (Physical Sciences). Prerequisite: MATH 161.

### PHYS 116 INTRODUCTORY LABORATORY EXPERIENCE (1)

Laboratory, 3 hours. Demonstrations and participatory experiments are used to increase the student's familiarity with gravitational, electromagnetic and nuclear forces in nature. Applications include biological, geophysical, medical and environmental phenomena. Satisfies GE, category B1 or B3 (Physical Sciences) and GE laboratory requirements. Prerequisite: previous or concurrent enrollment in PHYS 114.

### PHYS 209A GENERAL PHYSICS LABORATORY (1)

Laboratory, 3 hours. Laboratory experiments to accompany PHYS 210A and develop the student's ability to perform measurements of physical phenomena and to increase their appreciation of the sense of the physical universe gained through experimentation. 209A satisfies GE, category B1 or B3 (Physical Sciences) and GE laboratory requirements. Prerequisites: high school algebra and trigonometry and a high school physical science and previous or concurrent enrollment in PHYS 210A.

### PHYS 209B GENERAL PHYSICS LABORATORY (1)

Laboratory, 3 hours. Laboratory experiments to accompany PHYS 210B and develop the student's ability to perform measurements of physical phenomena and to increase their appreciation of the sense of the physical universe gained through experimentation. Prerequisites: 209A and previous or concurrent enrollment in 210B.

### PHYS 210A GENERAL PHYSICS (3)

Lecture, 3 hours. A basic course in physics for students majoring in biology, geology or preprofessional programs. Fundamentals of kinematics, Newton's laws, work, momentum, harmonic motion, and an introduction to fluids and concepts of temperature. Registration by mathematics majors requires Physics and Astronomy Department approval. 210A satisfies GE, category B1 or B3 (Physical Sciences) requirement. Prerequisites: high school algebra and trigonometry or MATH 107.

### PHYS 210B GENERAL PHYSICS (3)

Lecture, 3 hours. A basic course in physics for students majoring in biology, geology or preprofessional programs. Topics include: electric charges, potentials, fields and currents, magnetism, electromagnetic waves, and optics. Registration by mathematics majors requires Physics and Astronomy Department approval. Prerequisites: 210A.

### PHYS 214 INTRODUCTION TO PHYSICS II (4)

Lecture, 4 hours. The continuation of PHYS 114. Electrostatics, quasistatic fields and currents, magnetostatics; electromagnetic induction; waves; physical and geometric optics. Prerequisites: PHYS 114; previous or concurrent enrollment in MATH 211.

### PHYS 216 INTRODUCTORY LABORATORY (1)

Laboratory, 3 hours. Selected experiments to increase the student's working physical knowledge of the natural world. Prerequisites: PHYS 114 and 116. Concurrent enrollment in PHYS 214 is strongly recommended.

### PHYS 300 PHYSICS OF MUSIC (3)

Lecture, 3 hours. Introduction to physical principles encountered in the study of music; applicable laws of mechanics and acoustics; harmonic analysis; musical scales; sound production in musical instruments; elements of electronic music.

### PHYS 313 ELECTRONICS (3)

Lecture, 3 hours. A comprehensive review of DC and AC circuit theory, applications of diodes, transistors and operational amplifiers, electronic test instruments; electronic transducers; waveform generators; noise; logic gates and Boolean algebra; number systems and codes; combinational logic circuits; applications of circuit simulation programs. Concurrent enrollment in PHYS 313L is mandatory. Prerequisites: MATH 107, PHYS 210B or 214; or consent of instructor.

### PHYS 313 ELECTRONICS (3)

Lecture, 3 hours. A comprehensive review of DC and AC circuit theory, applications of diodes, transistors and operational amplifiers, electronic test instruments; electronic transducers; waveform generators; noise; logic gates and Boolean algebra; number systems and codes; combinational logic circuits; applications of circuit simulation programs. Concurrent enrollment in PHYS 313L is mandatory. Prerequisites: MATH 107, PHYS 210B or 214; or consent of instructor.

### PHYS 313L ELECTRONICS LABORATORY (1)

Laboratory, 3 hours. Laboratory to accompany PHYS 313. Experiments in this lab are designed to address the major topics of PHYS 313 lecture course. Students will experiment with physical and simulated circuits. Concurrent enrollment in PHYS 313 is mandatory. Prerequisites: MATH 107, PHYS 209B or 216; or consent of instructor.

### PHYS 313L ELECTRONICS LABORATORY (1)

Laboratory, 3 hours. Laboratory to accompany PHYS 313. Experiments in this lab are designed to address the major topics of PHYS 313 lecture course. Students will experiment with physical and simulated circuits. Concurrent enrollment in PHYS 313 is mandatory. Prerequisites: MATH 107, PHYS 209B or 216; or consent of instructor.

### PHYS 314 INTRODUCTION TO PHYSICS III (4)

Lecture, 4 hours. The continuation of PHYS 214. Special relativity; elementary quantum mechanics; the Bohr atom and deBroglie waves; the Schrödinger wave equation with applications to simple one-dimensional problems and to atomic structure; elementary nuclear physics; introduction to equilibrium statistical mechanics; the partition function, Boltzmann statistics. Prerequisites: PHYS 214; previous or concurrent enrollment in MATH 261.

### PHYS 320 ANALYTICAL MECHANICS (3)

Lecture, 3 hours. This course is an exploration into the principles of Newtonian, Lagrangian, and Hamiltonian mechanics. It also includes a treatment of noninertial reference frames, rigid body rotation, central force problems, and the dynamics of a system of particles. Prerequisites: PHYS 114 and previous or concurrent enrollment in PHYS 325.

**PHYS 325 INTRODUCTION TO MATHEMATICAL PHYSICS (3)**

Lecture, 3 hours. This course examines advanced mathematical methods and serves as a foundation for future courses. Topics include coordinate systems and vectors; vector calculus; series expansions; differential equations; orthonormal functions; solutions of systems of linear equations; matrices and tensors; complex numbers; eigenvalues and eigenfunctions; Fourier series and Fourier integrals; use of mathematical symbolic processing software. Prerequisites: PHYS 214 and MATH 261 or consent of instructor.

**PHYS 340 LIGHT AND OPTICS (3)**

Lecture, 3 hours. An examination of the properties of light from geometric and physical optics perspectives. Topics include: ray optics, refraction, diffraction, coherence, interference, and polarization. The course will present Fermat's principle, Huygens' principle and Fourier optics. Prerequisite: PHYS 314 or 325.

**PHYS 342 LIGHT AND COLOR (3)**

Lecture, 3 hours. A descriptive, nonmathematical, but analytical treatment of the physical properties of light, the camera, telescope, microscope and laser; holography, mirages, rainbows and the blue sky; colors in flowers, gems and pigments; human and animal vision and visual perception. Satisfies GE, category B3 (Specific Emphasis in Natural Sciences). Prerequisite: any physical science course or consent of instructor.

**PHYS 366 INTERMEDIATE EXPERIMENTAL PHYSICS (3)**

Lecture 2 hours; laboratory 3 hours. An introduction to contemporary techniques and problems in physics. Selected topics in lasers and photonics, materials science (including high-magnetic field measurements and surface analysis using scanning electron and atomic force microscopy), X-ray analysis, applied nuclear physics, adaptive optics. Prerequisites: PHYS 314 and 216, or consent of instructor.

**PHYS 381 COMPUTER APPLICATIONS FOR SCIENTISTS (2)**

Lecture, 1 hour; laboratory, 3 hours. A survey of problem solving techniques including computer modeling and simulation for the physical sciences. The student is introduced to high-level programming languages such as C++ and various mathematical tools such as Excel, Mathematica and MatLab. Topics include modern programming techniques, use of graphics and mathematical function libraries, linear least squares data fitting techniques, numerical solution of algebraic and differential equations and error analysis. Prerequisites: PHYS 114 and MATH 211.

**PHYS 395 COMMUNITY INVOLVEMENT PROGRAM (1-2)**

CIP involves students in basic community problems related to physics and astronomy-performing such tasks as tutoring, reading to the blind, service to local, county and state agencies, and service as teacher aides to elementary schools. Students receive 1-2 units, depending on the specific task performed. Not more than 4 CIP units will be applicable to the physics major requirements. May be taken by petition only.

**PHYS 396 SELECTED TOPICS IN PHYSICS (1-4)**

A course of lectures on a single topic or set of related topics not ordinarily covered in the physics curriculum. The course may be repeated for credit with a different topic. Prerequisite: consent of instructor.

**PHYS 430 ELECTRICITY AND MAGNETISM (3)**

Lecture, 3 hours. An investigation into the fundamentals of electromagnetic theory and its applications. Topics include vector analysis, electrostatics, method of images, magnetostatics, electric currents, electromagnetic induction, electric and magnetic fields in matter, Maxwell's equations, electromagnetic waves, potentials and fields. Prerequisites: PHYS 214 and previous or concurrent enrollment in PHYS 325.

**PHYS 445 PHOTONICS (3)**

Lecture, 3 hours. A practical examination of Gaussian beams; guided-wave optics; fiber optics; optical resonators; resonant cavities; laser oscillation and amplification; laser excitation; optical pumping; solid state, gas, dye, chemical, excimer and free electron lasers; semiconductor lasers; laser spectroscopy; fiber optic communication; photomultiplier and semiconductor radiation detectors including photoconductors, junction photodiodes; p-i-n diodes, avalanche photodiodes; detector noise. Prerequisite: PHYS 314 or consent of instructor. (Crosslisted with CES 430 and ES 445).

**PHYS 450 STATISTICAL PHYSICS (2)**

Lecture, 2 hours. An introduction to statistical methods. Topics include ideal gas, heat capacities, entropy, enthalpy, the laws of thermodynamics: Boltzmann, Bose and Fermi statistics; applications such as engines and refrigerators. Prerequisite: PHYS 314.

**PHYS 460 QUANTUM PHYSICS (3)**

Lecture, 3 hours. This course examines the Schrödinger equation and its solution for free particles, potential wells, harmonic oscillators, central potentials, and the hydrogen atom. Other topics may include Hilbert space; Hermitian operators; Dirac notation; angular momentum and spin; scattering; wave function symmetry; and elementary perturbation theory. Prerequisites: PHYS 314 and 325.

**PHYS 466 ADVANCED EXPERIMENTAL PHYSICS (3)**

Lecture 2 hours; laboratory 3 hours. Advanced topics in lasers and photonics, materials science (including high-magnetic field measurements and surface analysis using scanning electron and atomic force microscopy), X-ray analysis, applied nuclear physics, adaptive optics. Prerequisites: PHYS 314 and 216, or consent of instructor.

**PHYS 475 PHYSICS OF SEMICONDUCTOR DEVICES (3)**

Lecture, 3 hours. A detailed study of semiconductors and their applications. Topics include semiconductor materials, crystal structure and growth; energy bands and charge carriers, conductivity and mobility; metal-semiconductor and p-n junctions; p-n junction diodes, bipolar junction transistors, field-effect transistors, CCDs, photonic devices and integrated circuits. Conductivity and contact resistance measurements; I-V and C-V characteristics of diodes; characterization of transistors. Prerequisite: PHYS 314 or consent of instructor. (Crosslisted with CES 432 and ES 432).

**PHYS 492 INSTRUCTIONAL DESIGN PROJECT (2)**

A directed project to develop at least one laboratory experiment and/or classroom activity that teaches basic concepts in undergraduate physics. Both written and oral presentations (including a demonstration of the experiment or activity) will be required. Prerequisite: Physics 214 and 216 or Physics 210B and 209B.

**PHYS 493 SENIOR DESIGN PROJECT (2)**

A directed project to develop either a working prototype or a detailed conceptual design for an operational laboratory device. Both written and oral presentations (including a demonstration) will be required. Prerequisites: PHYS 313L. Application form required prior to enrollment.

**PHYS 494 PHYSICS SEMINAR (1)**

A series of lectures on topics of interest in physics, astronomy and related fields. May be repeated for credit up to 3 units maximum. Prerequisite: consent of instructor.

**PHYS 495 SPECIAL STUDIES (1-4)**

The Physics and Astronomy Department encourages independent study and considers it to be an educational undertaking. Students wishing to enroll for special studies are required to submit proposals to their supervising faculty members that outline their projects and exhibit concrete plans for their successful completion.

**PHYS 497 UNDERGRADUATE RESEARCH IN PHYSICS (2)**

Supervised research in an area of physics that is currently under investigation by one or more members of the Physics and Astronomy Department's faculty. This course may be repeated for up to 6 units of credit. Both written and oral presentations will be required. Prerequisites: junior standing and consent of instructor.

**Political Science (POLS)**

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**POLS 151 CREDIT BY EXAMINATION: CALIFORNIA GOVERNMENT (1)**

The state code requirement in California state and local government may be satisfied by passing an examination in the political science department.

**POLS 199 MEDIA: CONTEMPORARY ISSUES (2)****POLS 200 AMERICAN POLITICAL SYSTEM (3)**

An examination of American politics and governmental institutions. Introduces students to the political system and how to participate in it, should the need arise. Satisfies the code requirements in American Constitution and California state and local government. Satisfies GE, category D4 (U.S. Constitution and State and Local Government).

**POLS 201 IDEAS AND INSTITUTIONS (4)**

An analysis of the basic political values and their impact on society. Students will be introduced to the relationship between values, ideology and the political process. Political science majors are expected to take this course, which stresses written expression, during their first year in the department. Satisfies GE, category D5 (Contemporary International Perspectives).

**POLS 202 ISSUES IN MODERN AMERICAN POLITICS (4)**

Leaders and issues in American political life considered in relation to major policies and movements, e.g., progressivism, isolationism, the New Deal, containment. Open to majors and minors in political science. Meets code requirements in American Constitution and California state and local government. Satisfies GE, category D4 (U.S. Constitution and State and Local Government).

**POLS 292 SOCIAL SCIENCE LIBRARY RESEARCH (1)**

A basic introduction to social science library research sources, with special emphasis on political science. Course includes learning library research skills and practice with print resources and electronic sources.

**POLS 302 SOCIAL SCIENCE RESEARCH METHODS (4)**

Social science research and statistical methods, which includes as a significant component computer-based data analysis using the SPSS (Statistical Package for the Social Sciences) programs. It may include building data files and data analysis using multivariate tables, correlations, and regression techniques in a directed research project. The course includes a two-hour laboratory.

**POLS 303 INTRODUCTION TO COMPARATIVE GOVERNMENT (4)**

Reviews the principal concepts and theories of comparative politics, and assesses the institutions that comprise varied systems of government. Concrete examples taken from modern systems will be applied throughout the course. Special attention is focused on the political systems of Britain, France, Japan, Russia and China. Students are assigned research projects on political systems of developing nations.

**POLS 304 INTRODUCTION TO INTERNATIONAL RELATIONS (4)**

An introductory analysis of the dynamics of the international political system, stressing the roles of supranational organizations, internal and external factors in foreign policy formulation by nation-states. Review of traditional and contemporary theories of international interaction.

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An introductory analysis of the dynamics of the international political system, stressing the roles of supranational organizations, internal and external factors in foreign policy formulation by nation-states. Review of traditional and contemporary theories of international interaction.

**POLS 310 CLASSICAL POLITICAL THOUGHT (2-4)**

A comprehensive look at the foundations of Western political thought, with particular attention to the theories of Plato, Aristotle and Thomas Aquinas.

**POLS 311 MODERN POLITICAL THOUGHT: MACHIAVELLI TO BUSH (4)**

Examination of the major writings from Machiavelli to the present. Emphasis on original sources and development of student opinions on ideas discussed.

**POLS 312 AMERICAN POLITICAL THOUGHT (4)**

An examination of the development of American political ideas as reflected in the works and careers of representative writers and political leaders.

**POLS 313 CRITICAL THEORY: RACE AND GENDER (4)**

Using race and gender as analytical tools, we investigate how major authors in the field such as "deconstruct" concepts such as rights, democracy, the autonomous individual, and freedom. We will evaluate the central proposition of critical theory that these political principles have been used to "disguise" disparities in power and resources in this country. The ultimate question students will answer, is how useful critical theory in reevaluating our political values as we face an increasingly diverse and interdependent world.

**POLS 315 DEMOCRACY, CAPITALISM, AND SOCIALISM (3-4)**

Examination of the major ideas of important theorists about the relationships among democracy, capitalism and socialism. A consideration of the actual strengths and shortcomings of some of the current world's major political/economic systems that attempt to put these ideas into practice. Satisfies GE, category D5 (Contemporary International Perspectives).

**POLS 320 STATE, CITY AND COUNTY GOVERNMENT (4)**

An introductory study of the political structure and process at the state, county and municipal levels, with emphasis on urban and regional problems. The changing relationships between the state and federal governments will be explored. Political decision making at all three levels will be discussed in depth. Satisfies, by petition, the state code requirement in California state and local government. Can be used to fulfill prerequisite courses for M.P.A. program for structure of state and local government agencies, as well as the political science requirement for the California cultural studies major.

**POLS 330 RACE, ETHNICITY, AND POLITICS (4)**

A survey of the unique impact of race and ethnicity on American politics, including analysis of constitutional, legal, and historical factors affecting the status of persons of color. Attention to the role race and ethnicity play in the media, elections, political participation and representation, public opinion, public policy and popular culture.

**POLS 345 MODEL UNITED NATIONS (MUN) (4)**

Introduction to the political structure and functions of the United Nations, with emphasis on team participation at the Western MUN or National MUN in New York. Students play decision-maker roles that they research for preparation of position papers on agenda items.

**POLS 350 EUROPEAN PARLIAMENTARY DEMOCRACIES (4)**

The theory and practice of democratic government in Britain, France and Germany. Using the United States as a basis for comparison, the course will consider the many important variations in the ways parties, parliaments, bureaucracies and executives have developed and perform in the European political arena.

**POLS 351 POLITICS OF RUSSIA (4)**

The political evolution of Russia in the post-Soviet era. Evaluation of Russian political institutions and political culture. Appraisal of the most significant problems affecting democratic transition. Review of Soviet political traditions.

**POLS 352 POLITICS OF EASTERN EUROPE (4)**

The political development of the East European nations from the interwar period to the present. Special attention is paid to the problems and prospects for democratic transition in the region, with particular concentration on Hungary, the Czech Republic, Poland and the former Republics of Yugoslavia.

**POLS 354 COMPARATIVE POLITICAL PARTIES (4)**

A comparative approach to the structure and dynamics of political parties, party systems and electoral law. The course will consider parties and their impact on the political process in the United States, Europe and selected cases in other global areas.

**POLS 390 SPECIAL TOPICS (1-4)**

A seminar lecture series on a specific theme or topic presented by members of the department, other SSU faculty, and guest speakers. May be audited or taken for credit.

**POLS 391 GENDER AND POLITICS (4)**

This course explores how gender is used to interpret American politics. Major works in the field are used to investigate the explanatory power of gender as an analytic category. Specific topics include the Constitution, elections, the media, social movements, race, sexuality, and comparative issues. How these aspects of American politics affect, and are affected by, men and women, will be addressed.

**POLS 406 INTERDISCIPLINARY SEMINAR (1-4)****POLS 415 EXPLORATIONS IN POLITICAL THEORY (3-4)**

A seminar dealing with selected topics in political theory, including contemporary theories of the political system, the political novel, revolutionary theorists and socialist theory. A different area of emphasis will be offered each year. Consult Schedule of Classes for current offering. May be repeated for credit.

**POLS 420 AMERICAN POLITICAL DEVELOPMENT (4)**

The development of American Political institutions including the Congress, the Presidency, the Political Party System, the Public Bureaucracy and Federalism over time from the early years of the republic to the present. Emphasis will be upon explaining stability, critical junctures and political change on those institutions understood from a development perspective.

**POLS 421 FEDERAL AND INTERGOVERNMENTAL RELATIONS (3-4)**

This course examines how the different levels of government interact in the creation and implementation of public policies at the federal, state and local levels. The class provides students with an understanding of the theory and reality of federalism in the American political system. Can be used to fulfill prerequisite course for M.P.A. program for intergovernmental relations.

**POLS 423 INTRODUCTION TO CONSTITUTIONAL LAW (4)**

Judicial interpretation of the Constitution, with particular emphasis upon separation of powers, presidential powers, relationship between state and national government control of interstate commerce, and jurisdiction of the courts. Cross-listed as CCJS 404.

**POLS 424 THE BILL OF RIGHTS, CIVIL LIBERTIES, AND THE CONSTITUTION (4)**

Judicial interpretation of the Constitution in the areas of civil liberties, freedom of speech, freedom of religion, rights of persons accused of crimes, citizenship and the government's responsibility to protect persons from discrimination. Cross-listed as CCJS 489.

**POLS 425 THE AMERICAN PARTY SYSTEM (4)**

An examination of political parties in the American system. Comparison with party systems in other democratic countries, Independent voters, third parties, proposed reforms and the nature of the electorate. Satisfies, with Political Science department chair's signature, the state code requirement in U.S. constitution and California state and local government.

**POLS 426 THE LEGISLATIVE PROCESS (4)**

An examination of the organization and operation of the American Congress. For comparative purposes, legislatures in selected American states and Western European democracies will be briefly considered. Satisfies, with Political Science department chair's signature, the state code requirement in U.S. Constitution and California state and local government.

**POLS 427 THE AMERICAN PRESIDENCY (4)**

An examination of the place of the Presidency in the American governmental system. Emphasis will be placed upon the interplay between the president and other elements of the system, particularly the Congress, the bureaucracy and the media. Satisfies, with Political Science department chair's signature, the state code requirements in U.S. Constitution and California state and local government .

**POLS 428 SEMINAR IN CALIFORNIA POLITICS AND GOVERNMENT (4)**

Analysis of the California political system. Attention is given to governmental institutions, but primary emphasis is upon parties, interest groups, public opinion, ideologies and leadership. Satisfies, with Political Science department chair's signature, the state code requirement in U.S. Constitution and California state and local government. Can be used to fulfill prerequisite courses for M.P.A. program for structure of state and local government agencies, as well as the political science requirement for the California Cultural Studies major.

**POLS 429 INTEREST GROUPS (4)**

The role of interest groups in the American policy-making process. Group formation, the influence of money and P.A.C.s on election outcomes and lobbying reform. Satisfies, with Political Science department chair's signature, the state code requirement in U.S. constitution and California state and local government.

**POLS 430 INTRODUCTION TO PUBLIC ADMINISTRATION (4)**

An introduction to the field of public administration, with emphasis upon bureaucratic life, leadership and decision making. Cross-listed as CCJS 365.

**POLS 431 POLITICS AND THE MEDIA (4)**

The role of the mass media in American political life. Emphasis on television, news magazines, major newspapers and political columnists, and their interrelationship with American political institutions.

**POLS 439 POLITICAL SCIENCE INTERNSHIP (1-6)**

Field experience in city, county, state and federal agencies. May be repeated three times for credit. Note that no more than a total of 6 internship and special studies units may be counted in the 40-unit major. Prerequisite: prior arrangement with a faculty member.

**POLS 444 UNITED STATES FOREIGN POLICY (4)**

An analysis of the forces, governmental and nongovernmental, that influence the formulation of U.S. foreign policy. An examination of the organizational structure charged with the formulation and execution of that policy, as well as the content of policy since World War II.

**POLS 445 INTERNATIONAL ORGANIZATIONS (4)**

An analysis of the theories and concepts guiding the study of international organizations, followed by an examination of the United Nations, the European Union, NATO, the WTO and other financial institutions, and various non-governmental organizations.

**POLS 446 INTERNATIONAL RELATIONS OF THE MIDDLE EAST: ISRAEL, THE PALESTINIANS AND THE UNITED STATES (4)**

An examination of the evolution of the Palestinian-Israeli conflict with an emphasis on how regional and world power factors have affected, and been affected by, this conflict. The course will cover the historical background of modern European imperialism, the nature and character of the Palestine Mandate period, followed by discussion of the creation of the state of Israel in 1948 and the simultaneous emergence of the Palestinian Problem. The 1956, 1967 and 1973 Arab-Israeli wars and their relation to the rise of the Palestinian Resistance Movement will then be covered, followed by an analysis of the "peace process" of the 1990s and its breakdown.

**POLS 447 NONVIOLENT STRATEGIES IN INTERNATIONAL RELATIONS (4)**

The use of force is often considered to be the most effective form of power, yet nonviolent strategies of action can, in many cases, provide more efficient and successful means to achieve one's goals than the ultima ratio of violence. Those who rely on "just war theory" to advocate for the necessity of war should note that in the 20th century (and early 21st century), nonviolent forms of resistance to oppressive authority generated more profound social and political transformations than violence. Most recently, direct nonviolent action has helped facilitate democratic transitions and is proving to be the most promising means to bring justice and overcome oppression in current struggles in Burma, Egypt, Iran, Iraq, Western Sahara, Zimbabwe, and Belarus. This course will draw on a range of literature, theory and case studies in international relations to examine these and other questions: "When is nonviolence a preferable alternative, both ethically and strategically?", "How does the regime context (e.g., open society vs. dictatorship) influence the menu of nonviolent options?", "Why have some nonviolent movements been successful while others have failed?", "What insights does the application of nonviolent action provide to the global community?"

**POLS 448 POLITICAL VIOLENCE, TERRORISM, AND LAW (4)**

An examination of political violence, terrorism, and legal structures affecting management of conflict. Includes introduction to scientific methodologies used to study political violence and both current and historical conflicts. Course learning objectives include: gaining an understanding of social science conceptions of "terrorism" and "political violence"; increasing knowledge of terrorism actors, motivations, organizations, and forces that mark the use of violence for political gain; gaining knowledge of the historical epochs of political violence and the controversies that result from a response by targeted nations and actors; Creating, examining, analyzing theories and concepts that inform our understanding of legal structures, terrorism and political violence.

**POLS 450 POLITICS OF ASIA (4)**

A comparative analysis of the political development of Asia. After a review of the legacy of colonialism and those theories related to economic development and democratic transition, this course will examine the political systems of selected countries in the region.

**POLS 452 THIRD WORLD POLITICAL SYSTEMS (4)**

A comparative analysis of politics and political development of Third World countries. International and domestic obstacles to modernization will be studied. The general analysis will be supplemented by an intensive scrutiny of selected countries and regions.

**POLS 453 POLITICS OF LATIN AMERICA (4)**

A comparative analysis of the political development of Latin America. After a review of the major theories related to economic development, revolution and democratic transition, this course will compare the political systems of selected countries in the region.

**POLS 458 COMPARATIVE SOCIAL POLICY (4)**

Comparative analysis of social policies in advanced industrial democracies. The course will look at relationships between politics, political culture, and public policy.

**POLS 466 POLITICAL PSYCHOLOGY (4)**

An examination of the psychological sources of political leadership and decision making. A study of the roots of political belief and extremism, as well as the acquisition of civic outlook in childhood and adolescence.

**POLS 475 URBAN POLITICS AND POLICY (4)**

Examination of the structure and process of urban and regional governments within the context of state sovereignty. Such aspects of local government, in both large and small urban areas, as planning, bureaucratic administration, social services, economic issues, the political policy making process and civil rights will be discussed in depth.

**POLS 481 POLITICS OF REGULATION AND LAND USE (3-4)**

An examination of regulatory policies as they affect business and land use decisions in the United States. Structural, legal and procedural aspects of the regulatory process are explored along with reform and deregulation. Explores the economic, environmental and political consequences of land use control.

**POLS 483 POLITICS OF WEALTH AND POVERTY (4)**

Course focuses upon conditions and causes of poverty, wealth and income inequality in the U.S. and the variety of economic, social, governmental, and political responses that have occurred in recent decades. Of particular concern are the role of the government's income redistribution and social programs, and the function of values, political interest groups and social science findings in shaping these policies.

**POLS 484 ELECTIONS AND VOTER BEHAVIOR (4)**

Course examines the impact of the new styles and techniques of political campaigning on both the public decision-making process and control over public policy. Modern techniques of analysis and voter manipulation are discussed, along with the characteristics and behavior of the electorate and their historical patterns of political participation.

**POLS 485 POLITICAL POWER AND SOCIAL ISOLATION (4)**

The course explores a wide variety of personal, social and political meanings of community; including the decline of social and civic participation, political powerlessness, and theories of social fragmentation and political change. Recent theories link both economic development and community improvement to an ability to increase levels of "social capital". Given its focus, this course will be of particular interest to those concerned with these policy areas, or with a general discussion of the societal milieu of politics and government.

**POLS 486 SELECTED ISSUES: INTERNATIONAL POLITICS (3-4)**

An examination of current topics and developments in global politics, such as regional conflicts, North-South issues, economic interdependence and environmental issues. Title varies to reflect specific content each semester.

**POLS 487 SELECTED TOPICS IN COMPARATIVE POLITICS (4)**

Focus on dynamic political issues and developments in selected regions.

**POLS 494 SELECTED TOPICS IN POLITICAL SCIENCE (1-4)****POLS 495 SPECIAL STUDIES IN POLITICAL SCIENCE (1-4)**

A student may be invited by a faculty member to participate in a continuing research project under the faculty member's direction. The research may extend for more than a single semester. Seniors who participate in this course may have their work considered for graduation with honors. This course may be repeated for credit. Note that no more than a total of 6 special studies and internship units may be counted toward the 40-unit major.

**POLS 498 SENIOR SEMINAR (4)**

An opportunity for senior majors and graduate students to integrate their basic understanding of political science by exploring the interrelationship between the substantive subfields, basic concepts and the major modes of analysis current in political science today. All Political Science majors must take POLS 302 prior to enrolling in POLS 498.

**POLS 501 THE ADMINISTRATIVE STATE (4)**

This core course examines a variety of public administration literature, including aspects of organizational structure, group behavior and policy studies. Special attention will focus upon specific topics within the field: organizational behavior, power, leadership, personnel, control and administrative responsibility and discretion.

**POLS 502 ORGANIZATIONAL THEORY AND ANALYSIS (4)**

Presents basic analytic tools that can be used in diagnosing political and organizational situations. The nature and use of influence, strategic thinking and bargaining in organizations.

**POLS 503 BUDGET AND FISCAL ADMINISTRATION (2)**

An examination of the budgeting process with emphasis upon theories and politics of budgeting, and budgeting process reform. Required for all MPA students.

**POLS 503A PUBLIC FINANCE (2)**

An examination of applied issues in public budgeting and fiscal management. Public policy formation and evaluation of results as revealed in the budget will be explored. Required for public management track students.

**POLS 503B FISCAL MANAGEMENT OF NON-PROFIT AGENCIES (2)**

An examination of applied issues in non-profit budgeting and fiscal management. Fund accounting, cash flow analysis, expenditure control, long-range financial planning, audits, grants and contracts in non-profit agencies are studied. Required for non-profit track students.

**POLS 504A HUMAN RESOURCES FOR THE PUBLIC SECTOR (2)**

The evolving character of public personnel administration in the United States will be considered. Topics include civil service, personnel management, work life in organizations, employee participation, diversity, labor-management relations, and the relationship of public personnel to democracy.

**POLS 504B PERSONNEL ADMINISTRATION FOR NON-PROFIT ORGANIZATIONS (2)**

Examination of current issues in the management of employees and volunteers in non-profit organizations. Topics include board-staff relations, staff recruitment, selection, training and management, staff development, performance evaluation of paid and unpaid staff, labor-management relations, diversity, and compliance with state/federal regulations.

**POLS 505 RESEARCH METHODS (4)**

Lecture and laboratory. An examination of quantitative research techniques required by agency and program managers. Course includes work in data analysis, introduction to computer usage, techniques of needs assessment and program evaluation, and use of simple analytic models.

**POLS 506 PUBLIC POLICY PROCESS (4)**

The course will look at the public policy making process with emphasis on the role of ideas and analysis. Agenda setting, implementation, policy and design will be discussed.

**POLS 507 ETHICS IN ADMINISTRATION (4)**

A seminar designed to help public administrators cultivate an awareness of ethical dilemmas, develop ways of conceptualizing them, and practice ways of thinking about their resolution.

**POLS 508 PUBLIC POLICY (4)**

A comparison of selected social policies in North America and western Europe, with emphasis on explaining the national differences in policy content in such areas as education, environment and aging policy.

**POLS 509 POLITICS OF HEALTH CARE AND AGING (4)**

The course will be an examination of health care and aging policy in the United States. Comparisons with policy in several other democracies will be included. Also included will be a look at policies such as Medicare and the Older Americans Act, as well as the politics of these and others. Crosslisted as GERN 561.

**POLS 509 POLITICS OF HEALTH CARE AND AGING (4)**

The course will be an examination of health care and aging policy in the United States. Comparisons with policy in several other democracies will be included. Also included will be a look at policies such as Medicare and the Older Americans Act, as well as the politics of these and others. Crosslisted as GERN 561.

**POLS 511 LABOR RELATIONS (2)**

A course that looks at the historical and current development in labor relations in both the public sector and also in the not-for-profit sector. The course looks at changing concepts and their implications for the existing institutions, processes and values for both sectors of the economy.

**POLS 512 ORGANIZATIONAL DEVELOPMENT (4)**

An exploration of values, methodologies, strategies and theories of organization development.

**POLS 513 LEADERSHIP AND SUPERVISION (4)**

Examines the role of leader and of leadership in administrative agencies, together with an examination of techniques of supervision and administrative control.

**POLS 537 BARGAINING, POLITICS AND ADMINISTRATION (4)**

An examination of the politics of administration, with an emphasis on the dynamics of budgeting and interagency conflict. Of special interest in this course will be the focus on new theories of decremental budgeting ~ budgeting and political coalition building in an era of decreasing resources.

**POLS 538 ADMINISTRATIVE LAW (2-4)**

Introduction to the legal process within the framework of administrative agencies and procedures. The function of administrative law, including the role of legal agencies, delegation of powers, administrative procedures and statutes, and development of the current body of case law.

**POLS 539 PROGRAM IMPLEMENTATION (4)**

Focuses upon the critical movement from statute or authorization to an actual functioning program. The course will concentrate primarily on a series of case studies involving human services, environmental, economic development, and criminal justice programs at the federal, state and local levels.

**POLS 550 PLANNING AND EVALUATION (4)**

Techniques of administrative analysis and program evaluation. Included are examinations of techniques for assessment of policy impact and effectiveness, analysis of program objectives, evaluation methodologies, and the administration of evaluation systems. Prerequisite: Political Science Graduate Students and completion of POLS 505.

**POLS 551 ORGANIZATIONAL COMPUTER USAGE (4)**

An investigation of contemporary developments in the area of information systems, this course views computer usage from the organizational rather than data processing perspective. Central areas of concern are organizational planning and change, and the development of information systems that meet the planning challenge.

**POLS 560 SPECIAL ISSUES IN PUBLIC POLICY (4)**

An examination of selected issues in public policy/public affairs. Specific topics will be offered on the bases of student interest and current issue development.

**POLS 564 AGING SERVICES ADMINISTRATION (4)**

For individuals interested in careers in the administration of health care; residential and social services for the elderly. An introduction to the field of long-term care administration through the use of lectures and structured case studies. Specifically addresses management decision making in the operation of skilled nursing facilities, congregate care facilities, day care, home health care and retirement communities. Open to undergraduates. No prerequisites.

**POLS 578 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. Cr/NC only.

**POLS 580 NONPROFIT DYNAMICS: POLITICS AND COMMUNITY ENVIRONMENT (2)**

Introduction to nonprofits and the environment in which they operate. Analysis of nonprofits role and effectiveness in meeting public and private sector community needs. Topics include organizational models, needs assessment and asset mapping, and trends in intra-sector and cross sector partnerships. Required for all MPA students.

**POLS 581 NONPROFIT GOVERNANCE AND LEGAL ISSUES (2)**

Examination of the historical development of the non-profit sector, its changing social contract, and critical legal/tax issues. Topics include board governance, mission, start up, life cycles, executive director-board-staff relationships, legal status, fiscal sponsorship, and IRS status and rulings.

**POLS 582 PLANNING AND NONPROFIT AGENCIES (2)**

This course addresses techniques of strategic and operational planning appropriate to nonprofit agency operation. Topics include needs and service assessment, marketing analysis, program evaluation, organization development and strategic management techniques.

**POLS 583 RESOURCE DEVELOPMENT FOR NON-PROFIT AGENCIES (4)**

Course focus is on the techniques and importance of developing and implementing a comprehensive organizational resource development plan for funding, volunteers and donations, as well as ensuring a diversified agency revenue base. In addition, the course covers fund-raising, major donor development, as well as the legal restrictions for nonprofit agencies and the funding criteria used by corporate, community and private foundation funding sources.

**POLS 585 MARKETING AND PUBLIC RELATIONS FOR NONPROFIT AGENCIES (2)**

An examination of the role of marketing and public relations for nonprofit agencies, together with techniques for designing and implementing realistic marketing and public relations programs. Course will stress adaptation of marketing techniques to not-for-profit organizations, and will explore the types of access to press, electronic and other media available to nonprofits. Course restricted to Political Science Graduates only.

**POLS 587 GRANT WRITING AND ADMINISTRATION (2)**

Focus upon full process of prospect research, proposal development, application, and contract management and administration of foundation, government, and corporate grants.

**POLS 588 ISSUES IN NONPROFIT ADMINISTRATION (4)**

An investigation of current issues and developments in the operation of nonprofit agencies.

**POLS 595 SPECIAL STUDIES IN POLITICAL SCIENCE (1-4)**

A student may be invited by a faculty member to participate in a continuing research project under the faculty member's direction. The research may extend for more than a single semester. May be repeated for credit.

**POLS 596 GRADUATE TUTORIAL - EXAM (4)**

An independent, intensive review of the literature in specific areas of concentration, in Public Administration to include the MPA Core and Track course materials. Prerequisite materials to be included in this review. Prerequisite: completion of all master's degree requirements.

**POLS 597 GRADUATE INTERNSHIP (1-4)**

Intensive field experience in a public or private agency. The student must define a current political problem and a discipline-related strategy for dealing with the problem, and work toward implementing the strategy. Cr/NC only.

**POLS 599 MASTER'S THESIS (2-4)**

Prerequisite: submission of an authorized Advancement to Candidacy form.

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**Psychology (PSY)**

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**PSY 201 HUMAN POTENTIAL (3-4)**

Concepts and skills useful for increasing self-understanding and interpersonal effectiveness.

**PSY 250 INTRODUCTION TO PSYCHOLOGY (3)**

Theories, research and applications that constitute psychology. An important goal is to help students become informed consumers of psychological knowledge. Prerequisite to upper division courses in the major for students who enter Sonoma State University as first-time freshmen and students who transfer into psychology from other majors at Sonoma State. Satisfies GE, category D1 (Individual and Society).

**PSY 260 SEXUAL IDENTITIES (3)**

Explores lesbian, gay, bisexual and transgendered identities across the lifespan. Topics include the complexities of sexual identity, the coming out process, relational development, and LGBT communities.

**PSY 290 SPECIAL TOPICS (1-4)**

One or more psychological topics are selected for study in depth. Consult the schedule of classes for topics to be studied and current unit offering. May be repeated for credit.

**PSY 299 STUDENT INSTRUCTED COURSE (1-3)**

Each Student-instructed Course is designed by an advanced student under the guidance of a faculty sponsor. Each course proposal is carefully reviewed by the department Executive Committee before approval is granted. Consult the Schedule of Classes for the topic studied. Only two SICs may be credited toward the psychology major. Cr/NC only.

**PSY 302 LIFE SPAN DEVELOPMENT (3)**

A multidisciplinary examination of the social, cultural, emotional, and physical development of the human being. Shows how research and theories relate to and assist individuals in their own self-development. Satisfies upper-division GE, category E (The Integrated Person).

**PSY 303 THE PERSON IN SOCIETY (3)**

How humans behave, think and feel in interpersonal relationships, families, workplaces, communities and natural environments. How each of these social contexts affects the way people behave in the others. Interrelationships with larger political and economic variables are explored, drawing from other disciplines that offer relevant insights and knowledge. Satisfies GE, category D1 (Individual and Society).

**PSY 304 SIBLING RELATIONSHIPS (4)**

An exploration of the role of siblings in personal and family development, with a focus on sibling relationships in adulthood and later life. An emphasis will be placed on the psycho-social context of the sibling relationship in addition to theories of the psychology of the individual. Crosslisted with GERN 304.

**PSY 306 HISTORY OF MODERN PSYCHOLOGY (4)**

Part I of a year-long course that presents perspectives on the field of psychology. Includes past and present understandings of human experience, integrating issues and controversies. The first semester includes epistemology, traditional scientific and clinical methodologies, and behavioral, psychoanalytic, and Gestalt psychologies. Prerequisites: PSY 250, ENGL 101, PHIL 101, admission to the psychology major or consent of instructor, and sophomore standing.

**PSY 307 HUMANISTIC, EXISTENTIAL AND TRANSPERSONAL PSYCHOLOGY (4)**

Part II of this series continues with theories, methods, and research in humanistic, existential, and transpersonal psychology. Prerequisite: PSY 306 or consent of instructor.

**PSY 311 PSYCHOLOGY DIALOGUE SERIES (1-2)**

A lecture series that explores careers and topics of interest to psychologists. Practitioners in diverse fields of psychology are invited to speak on the nature of their work, current social and political trends in psychological practice, and their view of the future of psychology. Cr/NC only.

**PSY 312 ADULT DEVELOPMENT LECTURE SERIES (2)**

Lectures and presentations on thematic issues in the field of adult development and aging. Speakers are drawn from local community programs, Bay Area research organizations, and academic disciplines. May be repeated for credit. Crosslisted with GERN 312.

**PSY 313 CAREERS IN PSYCHOLOGY (2-4)**

Offers students an opportunity to explore and discover their values, skills, interests, lifestyle preferences, and the undertaking of the personal strategies necessary to formulate career paths and alternatives.

**PSY 322 MYTH, DREAM AND SYMBOL (3-4)**

Exploration of the creative unconscious in individual growth. Myths, dreams and symbols are explored from the standpoint of theory, symbolic work, art process, guided meditation, and group process. Approaches vary by instructor and may draw from texts by Jung, Campbell, Johnson, Hillman, Edinger, Singer and others. Prerequisite: junior standing.

**PSY 324 LEARNING MOMENTS (1)**

A series of presentations from individuals from all areas of the university, focused on their own personal moments of significant learning. May be repeated once for credit. Cr/NC only.

**PSY 326 SOCIAL PSYCHOLOGY (4)**

Introduces relationships between self and society, including the formation and change of attitudes and values, interaction and interpersonal dynamics, and the cultural influences on them. Topics include: symbolic interactionism, personal and social identities, motivation, prejudice and the consequences of ethnicity, class, and gender. Crosslisted with SOCI 326. Satisfies GE D1 (Individual and Society).

**PSY 326 SOCIAL PSYCHOLOGY (4)**

Introduces relationships between self and society, including the formation and change of attitudes and values, interaction and interpersonal dynamics, and the cultural influences on them. Topics include: symbolic interactionism, personal and social identities, motivation, prejudice and the consequences of ethnicity, class, and gender. Crosslisted with SOCI 326. Satisfies GE D1 (Individual and Society).

**PSY 327 PSYCHOLOGY OF ORGANIZATIONS (4)**

Applies social science methods and principles to organizational behavior. Topics include: teams in organizations, motivation, individual differences, attitudes and emotions relevant to work, stress and well-being, fairness and diversity within organizations, leadership and organizational change. The goal of organizational psychology is to maximize both employee well-being and organizational effectiveness. Prerequisite: PSY 250, PSY 380 or permission from the instructor.

**PSY 328 CROSS-CULTURAL PSYCHOLOGY (4)**

Didactic and experiential in nature, this course introduces students to the field of multicultural psychology as it pertains to concepts, issues, professional practice, and research. The focus is on self-exploration and understanding one's worldview regarding race, ethnicity, culture, gender, sexual orientation, age, and disability. Students reflect on the psychological and social implications of prejudice, racism, oppression, and discrimination on identity development, and social justice issues in a multicultural society like the United States.

**PSY 329 GROUP PROCESS (3-4)**

The use of the small group as a basis for understanding the individual, the individual's relationship to others, and the individual in group behavior. This class is normally conducted as an encounter group, with supplementary readings and written work. Prerequisites: Admission to the Psychology major and junior standing. Cr/NC only.

**PSY 330 STEREOTYPING AND PREJUDICE (4)**

Review of Social psychological theory and research examining stereotyping, prejudice, bias, discrimination and status.

**PSY 335 MEMOIR AND AUTOBIOGRAPHY (3-4)**

Storytelling and the storied nature of human experience, in research, counseling, therapy, and history. Uses methodology from psychology, literature, and other branches of the social sciences and humanities. Includes biography and autobiography, interview, and students' own oral and written narratives.

**PSY 338 PSYCHOLOGY OF CREATIVITY (4)**

The study of creative people, processes, and environments. Current and historical theory and research on creativity in personal and professional situations, humanities, science, business, education, and everyday life. Emphasis on individual and group projects. Service-learning course.

**PSY 342 THE PSYCHOLOGY OF MEDITATION (4)**

An exploration of meditative practice as a means of developing awareness, self-growth and psychological insight. Basic instruction in various meditation techniques, actual meditation practice, readings and discussions of the psychodynamics of meditation. Cr/NC only.

**PSY 352 PSYCHOLOGY OF YOGA (3-4)**

Unification of mind and body through the practice of Yoga. An introduction to the literature and practice of Yoga. The course normally includes separate lecture and practice sessions. May be repeated once for credit.

**PSY 358 HEALTH PSYCHOLOGY (3-4)**

Focuses on the relationship between the body and the mind in physical health, psychological well being, and personal growth. Students learn to: (1) critically evaluate empirical research reports and popular claims about mind-body practices; (2) develop an individualized long-term mind-body practice that can be used to promote health, well-being, and personal growth; and (3) apply psychological principles and strategies for helping others adopt and maintain health and wellness promoting mind-body practices. Prerequisites: Admission to the Psychology major and junior standing.

**PSY 360 PEAK PERFORMANCE PSYCHOLOGY (4)**

Focuses on the mental training techniques used by the most successful women and men around the world to enhance performance at work, in sport, and in life. This highly practical course will teach you how to create the optimal mental state necessary for success and happiness in almost any endeavor. Students learn how to increase concentration, overcome fatigue, create positive emotions, build confidence, and effectively master the mental, emotional, and physical challenges of school, work, sport, and life. This course is for students who wish to learn how to perform at their full potential with poise, calm, and grace. Includes readings, lectures, discussions, presenting to peers, participation in a mental skills training program, and practicing the mind-body arts of Tai Chi and Qigong. Prerequisites: Admission to the Psychology major and junior standing.

**PSY 362 HUMAN SEXUALITY (4)**

Covers the biological, social, developmental (across the life span), behavioral, and cultural dimensions of human sexuality. Examples of issues that will be addressed in the class include: intimacy, sexual expression, gender identity, sexual education, sex and the media, and sexual practices across cultures.

**PSY 380 PSYCHOLOGICAL RESEARCH METHODS (4)**

Introduction to the variety of ways psychologists collect research evidence. Students will be asked to try different research methods - conduct interviews, observe behaviors, write an attitude scale and design an experiment. Upon completing this course, students should be able to understand and critically evaluate major research methods in psychology and the social sciences. Prerequisite: PSY 250 and admission to the psychology major.

**PSY 398 STUDENT-INSTRUCTED COURSE (1-3)**

Each student-instructed course is designed by an advanced student under the guidance of a faculty sponsor. Each course proposal is carefully reviewed by the department executive committee before approval is granted. Consult the Schedule of Classes for the topic studied. Only two SICs may be credited toward the psychology major. Cr/NC only.

**PSY 399 GRADUATE STUDENT-INSTRUCTED COURSE (1-3)**

Each graduate student-instructed course is designed by an advanced student under the guidance of a faculty sponsor. Each course proposal is carefully reviewed by the department Executive Committee before approval is granted. Consult the Schedule of Classes for the topic studied. Only two SICs may be credited toward the psychology major.

**PSY 404 PSYCHOLOGY OF WOMEN (3-4)**

Examines women's development and women's place in the world from a psychological perspective. Material is drawn from contemporary research and thinking, longitudinal studies, case studies, personal narratives, and story. Prerequisite: junior standing. Crosslisted with WGS 330.

**PSY 405 THE PSYCHOLOGY OF GENDER (4)**

Explores gender through a social psychological perspective. Topics include gender socialization, the structure and junction of gender stereotypes, masculinity, and gender discrimination.

**PSY 408 TRANSITIONS IN ADULT DEVELOPMENT (4)**

This course explores how women and men experience and shape the transitions that occur as they mature socially and psychologically. Inquiry includes normative life cycle transitions as well as unexpected, unusual or "off-time" transitions and develops understandings of how these transitions shape the development of an individual through adulthood and later life. Crosslisted as GERN 408. Prerequisite: junior standing.

**PSY 409 SOCIAL AND EMOTIONAL DEVELOPMENT (4)**

This course presents an overview of social-emotional development across the life span. Theory and research will be assessed based on different theoretical models and approaches, including cross-cultural perspectives. Topics included are attachment, moral and personality development, social cognition, gender roles, identity, aggression, achievement and emotions. Prerequisite: PSY 250, PSY 302 or PSY 410.

**PSY 410 CHILD DEVELOPMENT (3-4)**

This course introduces students to the social-emotional, cognitive, language, biological, and physical development of children and adolescents. Students learn major developmental theories and current research as applied to relevant issues in today's society. The role that parents, teachers, communities, and cultures play in the healthy growth and development of children is emphasized. Prerequisites: PSY 250 and junior standing, or consent of instructor.

**PSY 411 BEHAVIORAL AND EMOTIONAL PROBLEMS OF CHILDREN (3-4)**

Study and observation of children with problems, and examination of the environments in which those problems occur. Major diagnostic categories for behavioral and emotional problems of childhood are covered. Prerequisite: junior standing.

**PSY 412 ADOLESCENT PSYCHOLOGY (3-4)**

An examination of the social, cognitive and biological theories in adolescent development. Material is drawn from research and personal interaction with adolescents. Prerequisite: junior standing.

**PSY 418 THE PSYCHOLOGY OF FAMILY (3-4)**

A study of the family as a social-psychological group. Considers family of origin, present families and relationships, and parenting. Prerequisite: junior standing.

**PSY 421 PSYCHOLOGY OF AGING (4)**

Analysis of psychological development as a life-long process, and examination of patterns of adult learning and ways to facilitate it. Exploration of the role of memory for learning and psychological functioning. Includes the study of issues in mental health in adulthood and later life. Crosslisted as GERN 421. Prerequisite: Open to Human Development and Psychology majors and Gerontology minors only.

**PSY 422 SEMINAR IN LIVING AND DYING (3-4)**

This course explores personal values and attitudes about life and death and seeks to understand them in relation to our own psychology and to the larger social context. Topics of separation and loss, loss from homicide, near-death experiences, mythology, and immortality will be addressed. Crosslisted as GERN 422.

**PSY 423 COMMUNITY PSYCHOLOGY (3-4)**

The study of community structure and processes in relation to human needs. Includes organizing community action, the role of the individual in social change, theories and strategies of organizing, building alliances, and affecting legislation and policy.

**PSY 425 ABNORMAL PSYCHOLOGY (4)**

The study of the wide spectrum of mental disorders found in the DSM with applications for community mental health, psychotherapy and other helping professions. Prerequisites: PSY 306 and junior standing, or consent of instructor.

**PSY 428 INTRODUCTION TO COUNSELING (4)**

An examination of the counseling process. Various approaches are considered and methods for the development of component skills presented. Prerequisites: PSY 306 and junior standing. Some sections require admission to the major and consent of instructor.

**PSY 429 GESTALT PROCESS (4)**

An experiential-didactic approach to the Gestalt process as developed by Fritz Perls and his associates. Useful both for developing counseling and therapeutic skills and perspectives and for personal growth. May be repeated once for credit.

**PSY 430 DEPTH ORIENTED PSYCHOTHERAPY (4)**

This advanced seminar focuses on several modalities used to access the psyche in depth oriented therapies. Dora and Martin Kalf and Sandplay, Jung's Individuation and use of Mandalas and DW Winnicott and his work with relational space will be the focus of this experiential learning forum.

**PSY 431 INTRODUCTION TO ART THERAPY (3-4)**

An overview of the field of art therapy, its varied schools of thought, and different possibilities of application~from public school settings to mental hospitals. Information on graduate and professional training in the field. Prerequisite: junior standing.

**PSY 432 GROUP WORK WITH OLDER ADULTS (4)**

This service-learning course introduces students to the fundamentals of group work with older adults. The class provides an overview of the phases of group development and basic skills and techniques for facilitating effective groups. Theoretical perspectives from sociology and psychology are used to examine how groups function, the value they have for older adults, and common themes in groups for older adults. To enhance learning, students go to senior sites in the community to co-facilitate weekly intergenerational dialogue groups. Crosslisted with GERN 432 and SOCI 432. Prerequisite: Admission to the major and junior standing.

**PSY 438 PSYCHOLOGICAL ASPECTS OF DISABILITY (3-4)**

This course is designed to give participants a better understanding of people with disabilities and an awareness of how society regards them. The disabilities addressed range from traumatic physical injuries through progressive diseases and conditions to mental retardation, alcoholism and emotional disabilities. The class is appropriate for anyone interested in disability, whether for personal or professional reasons. Crosslisted with GERN 438.

**PSY 440 COMMUNITY-BASED RESEARCH (4)**

This seminar presents an overview of fundamental concepts, issues, and methods in community based research and applied developmental psychology. Students will design, implement, analyze data, and write the report of research projects following APA format. Research projects should meet ethical and professional standards so they can be submitted to appropriate conferences. Students will also become critical consumers of research with human participants, especially as it refers to underrepresented groups in this country. Prerequisite: MATH 165, PSY 380, or consent of instructor.

**PSY 441 QUALITATIVE RESEARCH (4)**

Introduces the principles and techniques of qualitative research that are relevant for designing and carrying out psychological research. Topics include phenomenology, action research, grounded theory and discourse analysis. As a class, we will design and conduct a qualitative research project. Prerequisite: PSY 380 or permission of instructor.

**PSY 444 SOCIAL JUSTICE AND INTERGROUP RELATIONS (4)**

Review of psychological research and theory about social justice and intergroup relations. Topics include the ways in which people define fairness and how these definitions shape personal and business relationships, environmental resource allocation, criminal justice practice and international relations. Prerequisite: PSY 250, PSY 380 or permission from the instructor.

**PSY 445 ADVANCED RESEARCH DESIGN AND ANALYSIS (4)**

Locate and use relevant research and theory to plan, conduct, and interpret the results of a collaboratively designed study. Topics include research ethics, experimental design, survey design and tensions between applied and basic research. Upon completing the course, students should be able to use and evaluate the basic research designs most often employed by psychologists. Prerequisite: PSY 380 or consent of the instructor. Corequisite: PSY 445L.

**PSY 445L ADVANCED RESEARCH LABORATORY (2)**

Compliments PSY 445 by introducing and reviewing the statistical techniques used by psychologists to analyze quantitative data. Students use what they learn in the class to analyze the data they collect as part of their collaborative research project for PSY 445. Prerequisite: PSY 380 or consent of the instructor. Corequisite: PSY 445.

**PSY 447 LEARNING AND BEHAVIOR (3-4)**

A study of the learning process including major theories of learning and cognition and their application to problem solving behavior. Includes types of conditioning, stimulus controls and reinforcement, social learning, and cognitive mediator of emotion and behavior. Prerequisite: PSY 250. Recommended: PSY 306.

**PSY 448 COGNITIVE DEVELOPMENT (4)**

This course covers theories and research on cognition from infancy through childhood. Major theorists include Piaget, Vygotsky, Sternberg, Fischer, Case, Bruner, and information-processing perspectives. Special topics include social cognition, theory of mind, concept formation, problem-solving, memory, multiple intelligences, standardized testing, language, and cultural variations. Prerequisite: PSY 302 or 410.

**PSY 450 PHYSIOLOGICAL PSYCHOLOGY (4)**

A study of the relationship between physiological processes and behavior. Particular emphasis on the anatomy and physiology of the nervous system, the effects of metabolic processes, brain lesions, and various drugs on behavior.

**PSY 451 NEURAL SCIENCE AND BIOPSYCHOLOGY (4-8)**

A study of the human and mammalian brain, covering nerve cells and how they work, synapses, neurotransmitters, pharmacology, sexuality, neuroanatomy, neurophysiology, evolution, neuropathology, sleep, language, left brain and right brain, higher consciousness, and much more.

**PSY 451L NEURAL SCIENCE AND BIOPSYCHOLOGY LABORATORY (2-4)**

Demonstrations and exercises that exemplify the methods and subject matter of neuroscience and biopsychology psychology. Corequisite: PSY 451.

**PSY 454 BIOFEEDBACK, SOMATICS AND STRESS MANAGEMENT (4)**

An introduction to biofeedback, somatic psychology, and stress management through the study of human psychophysiology and psychology. Development of familiarity with the burgeoning research and technology related to health and wellness.

**PSY 456 BIOFEEDBACK PRACTICUM (3)**

Developes proficiency in the use of biofeedback equipment through simulated training sessions and supervised actual biofeedback training sessions. Case presentation format is used for discussion of issues that emerge in the student's practicum experience. Prerequisite: PSY 454.

**PSY 461 PERSONALITY (3-4)**

Varied viewpoints are brought to bear in an attempt to conceptualize and understand the process and functioning of human personality. Prerequisite: junior standing.

**PSY 462 SEMINAR IN HUMANISTIC AND EXISTENTIAL PSYCHOLOGY (4)**

Historical thinking in humanistic and existential psychology and examination of contemporary directions. Deals with the whole person in relation to his or her environment, from relationships and the family to the community, larger organizations, and the natural environment. Prerequisite: PSY 306 and 307 or consent of instructor.

**PSY 466 JUNGIAN PSYCHOLOGY (4)**

Examination of Jung and contemporary Jungian thinkers. Examines developmental aspects of Jungian theory such as individuation, typology, masculine and feminine development, and the transcendent function. Prerequisite: junior standing.

**PSY 471 PSYCHOLOGY OF RELIGION (4)**

Explores psychological research and theory on religion religious experience and spirituality. Topics include the link between religion and biology, development, personality, morality and prejudice, health and coping, and violence.

**PSY 472 TRANSPERSONAL PSYCHOLOGY (3-4)**

Surveys the psychological literature on spiritual, transcendent, and extra-ordinary experiences. Reviews roots of transpersonal psychology in ancient philosophies as well as current applications. Studies dualism and relationship, symbols of transformation, and doorways into the sacred from a psychological perspective.

**PSY 481 RESEARCH INTERNSHIP (1-8)**

Students learn applied research methods and practical research skills under the supervision of a faculty mentor. Prerequisite: consent of instructor. A maximum of 12 units of special study and internship credit may be applied to the psychology major. Cr/NC only.

**PSY 482 TEACHING INTERNSHIP (1-8)**

Students learn the skills of organization and communication of psychological theory and research under the supervision of a faculty mentor. Prerequisites: PSY 306 and 307, and consent of instructor. A maximum of 12 units of special study and internship credit may be applied to the psychology major. Cr/NC only.

**PSY 483 ADVANCED TEACHING INTERNSHIP (1-4)**

Advanced skills in teaching internship. A maximum of 12 units of special study and internship credit may be applied to the psychology major. Prerequisites: PSY 306 and 307, and consent of instructor.

**PSY 485 ECOPSYCHOLOGY (4)**

This course focuses on psychological aspects of our relationship to the earth. Issues to be addressed include the psychological impact of living in a time of ecological crisis, and the role of psychology in promoting a transition to an ecologically sustainable society. Field trips to be arranged.

**PSY 488 BIOFEEDBACK EXPERIENCE (1)**

Participation in personal biofeedback sessions conducted by interns in the biofeedback training sequence. Interns are supervised by a qualified biofeedback practitioner.

**PSY 489 APPLIED ECOPSYCHOLOGY (4)**

Individual, group, and community practices for healing and deepening our connection with the Earth. Approaches include meditation in nature, wilderness-based rites of passage, sensory awareness practices, and seasonal celebrations. Field trips to be arranged Cr/NC only.

**PSY 490 PSYCHOLOGY SEMINAR (1-4)**

Each semester one or more psychological topics is selected for study in depth. Consult Schedule of Classes for topics to be studied and current unit offering. May be repeated for credit.

**PSY 493 NARRATIVE: THEORIES AND METHODS (4)**

The course examines the role of narrative, or life storying, in human development research. Students develop a protocol, conduct research in the community using interview methodologies appropriate to the narrative perspective, analyze transcriptions for theoretical and life themes, and develop a final project based on the analysis of the data. Cross-listed as GERN 493.

**PSY 494 COUNSELING EXPERIENCE (1)**

Participation in personal counseling conducted by a graduate student in the counseling M.A. program under the direct supervision of a counseling department faculty member. Students generate a written evaluation of the counseling experience. Students compile a weekly journal and write a summary essay. May be repeated once. Cr/NC only. Prerequisite: instructor Consent.

**PSY 495 SPECIAL STUDIES (1-4)**

The psychology department encourages independent study as preparation and practice for life-long self-directed learning. Students should formulate plans for a project and present them to a faculty member for sponsorship. Special forms for this purpose are available in the department office. These should be completed and filed during the add/drop period. Twelve units of Special Study and Internship combined may be credited toward the major. Prerequisite: upper-division psychology major or consent of instructor. Cr/NC only.

**PSY 496 PSYCHOLOGY TUTORIAL (1-4)**

Directed study of a selected psychological topic under the supervision of a faculty member. A plan of study must be developed in consultation with the faculty member prior to registration. Prerequisites: upper-division psychology major and consent of instructor

**PSY 497 INTERDISCIPLINARY SEMINAR (2-4)**

Exploration of basic social problems. Resource persons from other disciplines may participate. Themes and topics vary. May be repeated for credit.

**PSY 499 INTERNSHIP (1-4)**

Supervised training and experience for advanced students in community agencies throughout the university service area. Special contracts are required and are obtainable in the department office. Internship assignments may be paid. Priority is given to students who apply during the last month of the preceding semester. Students register for PSY 499 during the add/drop period by submitting a completed contract (not online). Prerequisite: consent of instructor. Cr/NC only. A maximum of 8 units of internship credit may be applied to the psychology major. No more than 4 units of PSY 499 may be earned in one semester.

**PSY 500 SOCIAL AND PSYCHOLOGICAL ISSUES IN AGING (3-4)**

Selected issues provide exploration of relationships between psychological and social development in later life. Developmental, historical, cultural, psychological and policy perspectives may be offered. Consult Schedule of Classes for specific topic. Crosslisted as GERN 500. Prerequisite: graduate standing or permission of instructor.

**PSY 511A THEORIES OF DEPTH PSYCHOLOGY (2-4)**

A two-semester sequence that examines Jungian, depth, and archetypal psychology. Readings include Jung, Edinger, Hillman, and post-Jungians. Limited to students in the Depth Psychology Program.

**PSY 511B THEORIES OF DEPTH PSYCHOLOGY (2-4)**

A two-semester sequence that examines Jungian, depth, and archetypal psychology. Readings include Jung, Edinger, Hillman, and post-Jungians. Limited to students in the Depth Psychology Program.

**PSY 515 PSYCHOLOGICAL WRITING (1-4)**

Advanced instruction in the analysis, organization, style and content of psychological writing, including personal explorations.

**PSY 521A SEMINAR (1-4)**

Seminar instruction in the area indicated on the transcript.

**PSY 521B SEMINAR (1-4)**

Seminar instruction in the area indicated on the transcript.

**PSY 530A SEMINAR IN INTERPERSONAL PROCESS (1-4)**

A two-semester sequence in which students apply their knowledge of depth psychology to group process. Students read selected theorists and practitioners, as well as participate in group process interactions within the class. Limited to students in the Depth Psychology Program.

**PSY 530B SEMINAR IN INTERPERSONAL PROCESS (1-4)**

A two-semester sequence in which students apply their knowledge of depth psychology to group process. Students read selected theorists and practitioners, as well as participate in group process interactions within the class. Limited to students in the Depth Psychology Program.

**PSY 531 PERSONAL/INTERPERSONAL PROCESS (1-4)**

Personal psychological process work and/or group process.

**PSY 540A SEMINAR: PSYCHOLOGICAL ISSUES (3-4)****PSY 540B SEMINAR: PSYCHOLOGICAL ISSUES (1-3)****PSY 541 PROFESSIONAL TRAINING (1-4)**

Supervised professional training.

**PSY 542A METHODS AND APPLICATIONS OF DEPTH PSYCHOLOGY (3-4)**

A two-semester sequence that surveys the methods and applications used in depth psychological work. Students learn how the symbol contains, mediates, and expresses personal experience. Intensive work with different art forms, dreams, myth, meditation, active imagination, and the body. Students learn conceptual approaches for interpreting symbolic experience. Theory and practice are integrated throughout the course. Limited to students in the Depth Psychology Program.

**PSY 542B METHODS AND APPLICATIONS OF DEPTH PSYCHOLOGY (3-4)**

A two-semester sequence that surveys the methods and applications used in depth psychological work. Students learn how the symbol contains, mediates, and expresses personal experience. Intensive work with different art forms, dreams, myth, meditation, active imagination, and the body. Students learn conceptual approaches for interpreting symbolic experience. Theory and practice are integrated throughout the course. Limited to students in the Depth Psychology Program.

**PSY 543A CROSS-CULTURAL MYTHOLOGY AND SYMBOLISM (1-4)**

A two-semester sequence that surveys selected mythological, religious, artistic and cultural symbolic motifs and examines their expression in cultures throughout the world. Earth-based healing traditions and the council process are included. Readings are drawn from depth psychology, mythology, folklore, anthropology, eco-psychology, religion and art history. Limited to students in the Depth Psychology Program.

**PSY 543B CROSS-CULTURAL MYTHOLOGY AND SYMBOLISM (1-4)**

A two-semester sequence that surveys selected mythological, religious, artistic and cultural symbolic motifs and examines their expression in cultures throughout the world. Earth-based healing traditions and the council process are included. Readings are drawn from depth psychology, mythology, folklore, anthropology, eco-psychology, religion and art history. Limited to students in the Depth Psychology Program.

**PSY 545C ART THERAPY PRACTICES (1-3)**

Introductory studies in the use of various art therapy practices, techniques and interventions to develop in-depth personal knowledge and professional expertise in the application of Art Therapy theories and practices with others. Limited to students in the Art Therapy Program. Course may be repeated for credit.

**PSY 551 DIRECTED READING (1-4)****PSY 555A INTEGRATED STUDY (1-4)**

Integrated study incorporating a variety of modalities.

**PSY 555B INTEGRATED STUDY (1-4)**

Integrated study incorporating a variety of modalities.

**PSY 558 SEMINAR: HUMAN SYSTEMS AND SOCIAL CHANGE (4)**

The "human systems" perspective in the context of an information and communications society, as developed by general systems theory, organization development and humanistic-transpersonal psychology. Organizational and societal leadership are explored from perspectives of values, organizational dynamics and cultural/economic/ecological systems.

**PSY 560 PROFESSIONAL WORKSHOP (1-4)**

Each semester a particular problem or methodology will be selected for study in depth.

**PSY 561 RESEARCH METHODS (1-4)****PSY 566 BIOFEEDBACK PRACTICUM (3)**

Develops proficiency in the use of biofeedback equipment through simulated training sessions and supervised actual biofeedback training sessions. Case presentation format is used for discussion of issues that emerge in the student's clinical experience. Prerequisite: PSY 454.

**PSY 570 DIRECTED FIELD EXPERIENCE (1-6)**

Internship arranged at an approved college, school, hospital, or clinic. Regularly scheduled individual and group meetings with psychology department faculty for consultation regarding field experiences. Prerequisite: consent of instructor.

**PSY 571 PRACTICUM (1-4)**

Training and applied skill development.

**PSY 575 RESEARCH SEMINAR (1-4)**

Exploration of depth and qualitative research approaches to understanding personal experience. Students learn techniques in depth processes, interviewing, and organic inquiry. Emphasis is on stimulation of students' individual research interests, and the design, conduct, and completion of an individual research study.

**PSY 576 SEMINAR IN DEPTH PSYCHOLOGY (1-5)**

Selected topics in the field of depth psychology. Limited to Depth Psychology students only.

**PSY 578 PROJECT CONTINUATION (1-3)**

Designed for students working on their thesis or master's project but who have otherwise completed all graduate coursework toward their degree. This course cannot be applied toward the minimum number of units needed for completion of the master's degree. Prerequisite: permission of the graduate coordinator. Cr/NC only.

**PSY 580 SEMINAR IN TEACHING PSYCHOLOGY (1-4)**

Discussion of theory, methods and materials of teaching psychology. Customary emphasis is on undergraduate college instruction, but may vary according to the needs and interests of participants. Prerequisite: consent of instructor.

**PSY 581A INTERNSHIP (1-6)****PSY 581B INTERNSHIP (1-6)****PSY 582 TEACHING COLLEGE PSYCHOLOGY (1-8)**

Practical experience of supervised teaching in a college psychology classroom. Prerequisite: consent of instructor.

**PSY 583 GRADUATE RESEARCH ASSISTANT (1-4)**

Students learn advanced research methods and practical research skills under the supervision of a faculty mentor. Prerequisite: consent of instructor.

**PSY 584 GRADUATE TEACHING ASSISTANT (1-4)**

Students learn teaching skills by serving as teaching assistants in undergraduate classes under the supervision of the classroom instructor. Prerequisite: graduate standing; consent of instructor.

**PSY 595 SPECIAL STUDIES (1-4)**

Students should formulate plans for a project and present them to a faculty member for sponsorship. Special forms for this purpose are available in the department office. Prerequisite: graduate standing and consent of instructor. Cr/NC only.

**PSY 596 GRADUATE TUTORIAL (1-4)**

Seminar in selected topics. Consult semester class schedule for current offerings.

**PSY 599 MASTER'S THESIS (1-3)**

A Master's Thesis or investigative project under the guidance of the thesis chair. Prerequisite: Advancement to Candidacy.

**PSY 599A MASTER'S THESIS: PROJECT (1-3)**

A Master's thesis or investigative project is developed by the student under the guidance of a thesis committee chair. Students develop the research proposal and write thesis introduction, methods, and literature review in the first semester. In the second semester the thesis project is completed. Limited to Depth Psychology students.

**PSY 599B MASTER'S THESIS: PROJECT (1-3)**

A Master's thesis or investigative project is developed by the student under the guidance of a thesis committee chair. Students develop the research proposal and write thesis introduction, methods, and literature review in the first semester. In the second semester the thesis project is completed. Limited to Depth Psychology students.

**Science (SCI)**

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**SCI 150 INTRODUCTION TO CAREERS IN HLTH PROFESSIONS (1)**

Lecture, 1 hour. An introduction to careers and current issues in the health professions. The professions examined generally require a bachelor's degree before being accepted into a graduate-level health professions program such as medicine, osteopathic medicine, dentistry, veterinary medicine, optometry, pharmacy, physician assistant, podiatry, chiropractic medicine, genetic counseling, hospital administration, public health, clinical laboratory scientist, nursing, physical or occupational therapy, etc. Cr/NC only.

**SCI 308 KNOWLEDGE AND VALUES IN SCIENCE (3)**

## **Sociology (SOCI)**

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### **SOCI 201 INTRODUCTION TO SOCIOLOGY (3)**

A general overview of the concepts, theories, research methods and findings of sociology. The purpose is to train students to view the world through a sociological perspective. Satisfies GE, category D1 (Individual and Society).

### **SOCI 300 SOCIOLOGICAL RESEARCH METHODS (4)**

Consideration of the ways in which sociological questions are formulated and answered. Examination of and practice in conceptualization, theory construction, deductive and inductive reasoning, and other elements of sociological analysis, with an emphasis upon sociological research methods. Required for majors.

### **SOCI 301 STATISTICS FOR SOCIOLOGISTS (4)**

Introduction to descriptive and inferential statistics for the social sciences. Emphasis on the integration of statistical analysis with sociological approaches to theory, research design, data collection, and presentation of quantitative research. Introduction to statistical analysis software in lab setting. Recommended for majors. Grade only.

### **SOCI 305 PERSPECTIVES ON THE HOLOCAUST AND GENOCIDE (4)**

A weekly lecture series on the Holocaust, genocide and human rights. Guest lecturers and SSU faculty provide a variety of sociological and interdisciplinary perspectives on the topics. The course explores the intellectual, emotional, and ethical aspects of the Holocaust and seeks to deepen students' understanding of organized society, political leadership, democratic participation and human nature. Students also attend a weekly discussion group to explore and synthesize information presented in the weekly lectures. Requirements include written position, midterm and final papers. Prerequisite: upper division standing. Satisfies upper-division GE, category D5, (Contemporary International Perspectives).

### **SOCI 306 CAREERS IN SOCIOLOGY (4)**

How to identify and locate liberal arts jobs in government, business, private institutions, or self-employment. Choosing a career, job-hunting skills and techniques, and keeping a job. Study of such work-related issues as dual-career families, equal opportunity and professionalism.

### **SOCI 312 SOCIOLOGY OF GENDER (4)**

Considers gender as a social construction and a product of social life. Analyzes how gender inequalities shape social structures, institutions and interaction for both women and men. Challenges biological explanations for gender differences and inequalities. Focuses on analysis of gendered experiences as they relate to race/ethnicity, class, and sexualities.

### **SOCI 314 DEVIANT BEHAVIOR (4)**

The social causes and consequences of insanity, delinquency, criminality, addiction, social unconventionality and other "deviant" behavior. Examines the conversion and commitment to deviant world views, and the social processes involved in the transformation to a deviant identity. Crosslisted as CCJS 441.

### **SOCI 315 SOCIALIZATION (4)**

Analysis of the social processes through which human beings are inducted into social groups, in both childhood and adulthood. Particular attention is given to the socializing effects of schools, work, family and friends.

### **SOCI 317 EMOTIONS AND ADULT LIFE (4)**

Emphasizes the social context and social development of emotional responses throughout adulthood. Analyzes the reciprocal relations between social definitions and subjective feelings in connection with life events. Addresses both basic emotions such as fear, anger, pleasure and excitement, and the more complex emotions such as love, jealousy, grief, sympathy, pride, shame and despair. Crosslisted as GERN 317. Satisfies GE, category E (Integrated Person).

### **SOCI 319 AGING AND SOCIETY (4)**

Examination of aging throughout adulthood. Analysis of theories of aging, their foundations in social science theory, and their policy implications. Exploration of the meanings and consequences of increasing longevity for society and the individual, with emphasis on the social psychological implications for women, minorities and those who are poor. Crosslisted as GERN 319. Satisfies GE, category D1 (Individual and Society).

### **SOCI 326 SOCIAL PSYCHOLOGY (4)**

Introduces relationships between self and society, including the formation and change of attitudes and values, interaction and interpersonal dynamics, and the cultural influences on them. Topics include symbolic interactionism, personal and social identities, motivation, prejudice and the consequences of ethnicity, class and gender. Crosslisted as PSY 326. Satisfies GE D1 (Individual and Society).

### **SOCI 330 SOCIOLOGY OF MEDIA (4)**

This course will conduct an analysis of structural censorship in the United States and the importance of a free press for the maintenance of democratic institutions in society. Students will become familiar with independent/alternative news sources and prepare summaries of news stories for public release.

### **SOCI 331 MASS COMMUNICATION THEORY AND RESEARCH (4)**

A critical analysis of the nature and functions of mass communications in contemporary society. Overview of the history, structure, function and influence of the mass media. Development of critical and analytic skills necessary to determine when and how truth is manipulated to serve special parochial or cultural interests. Crosslisted as COMS 301.

### **SOCI 332 DEATH AND AMERICAN CULTURE (4)**

Examination of the relation of cultural values to practices, attitudes and views about death. Application of sociological and social psychological theories to topics on death and dying, such as death conceptions, terminal care, suicide, war and grief. Emphasis on the social psychology of dying, caregiving, grieving and being suicidal. Crosslisted as GERN 332.

### **SOCI 335 AMERICAN (UNITED STATES) SOCIETY (4)**

Study of the major values, institutions and social organizations in the United States. The social sources of change and stability in U.S. society.

### **SOCI 336 INVESTIGATIVE SOCIOLOGY (4)**

This is a service-learning course emphasizing the development of sociological research for popular press publication. Students will learn interviewing techniques, review sources of public information, and use of the freedom of information laws. Students will write and investigate social justice news stories using sociological research methods, and prepare a report for popular press publication.

### **SOCI 340 DRUGS AND SOCIETY (4)**

Examination of the sociopsychological, political, economic, ethnic and legal factors relating to drug use and abuse. Theories of causation and methods of rehabilitation will be critiqued. Crosslisted as CCJS 494.

**SOCI 345 SOCIOLOGY OF FAMILIES (4)**

Analyzes family as a social institution. Examines the interconnections between families and other institutions, with a focus on family change. Considers how families are affected by structures of race/ethnicity, class, gender, and sexuality. Examines and challenges ideologies about families.

**SOCI 347 AMERICAN CLASS STRUCTURE (4)**

An overview of stratification in the United States. Analysis of the effects of this system on those who participate in it, through the study of theoretical, ethnographic and community studies. Analysis of how class affects power, prestige, opportunity, culture and consciousness, as well as the interaction of ethnicity, gender and class.

**SOCI 350 CITY AND COMMUNITY LIFE (4)**

Examination of the social psychology of urban and community life. Particular attention will be paid to the analysis of the culture of public life, place and place attachment, patterns of interaction in urban and neighborhood settings, and the sociological debate surrounding loss of community.

**SOCI 360 SOCIOLOGY OF SEXUALITIES (4)**

An overview of sexuality across institutions of society. Uses theoretical, conceptual and empirical tools to analyze sexuality as a social fact. Explores the social construction of sexuality and how sexuality is socially created and organized and constrained.

**SOCI 363 SOCIOLOGY OF RACE AND ETHNICITY (4)**

Examines race and ethnic relations in the US from a theoretical, historical, and comparative perspective. Explores the emergence of racial and ethnic minorities through such historical processes as colonialism, slavery and immigration. Studies the current relations among racial and ethnic groups in the US.

**SOCI 365 HUMAN SERVICES ADMINISTRATION (4)**

Preparation for sociological practice in human service agencies, both public and private nonprofit. Includes training in such skills as organization planning, grant writing, volunteer management, report writing, communication consulting and group dynamics. Discusses the ethics and professional responsibility of sociologists.

**SOCI 366 JUVENILE JUSTICE (4)**

An exploration of the nature and extent of juvenile delinquency, with emphasis on serious or violent crime. The major theories of delinquency causation will be reviewed. The course will be devoted to the juvenile justice system and how it processes youths accused of crime. The nature and function of all major segments of the juvenile justice system will be discussed, including law enforcement, juvenile court and corrections. The legal rights of juveniles will also be reviewed. Finally, the current policy issues in juvenile justice will be explored. Crosslisted as CCJS 497.

**SOCI 375 CLASSICAL SOCIOLOGICAL THEORY (4)**

A critical examination of the writings of major sociological theorists, including Marx, Weber and Durkheim. This course will involve students in critical analysis of central sociological theories and offer them tools for understanding the development of sociological theory and its unique role in sociology. Satisfies upper-division GE, category D1 (Individual and Society). Required for majors.

**SOCI 377 CONTEMPORARY SOCIOLOGICAL THEORY (4)**

Emphasis on contemporary trends in theory, including topics such as culture, social identity, modernity and post-modernity, and the social construction of knowledge and reality. Includes critical assessment of problems, methods, and theories characteristic of sociological inquiry in the 20th and 21st centuries. Prerequisite: SOCI 375 recommended but not required.

**SOCI 380 POLITICAL SOCIOLOGY (4)**

An analysis of the relation between political processes and ideologies and the larger society. Emphasis on the social consequences of power arrangements, political economy and political structures. Comparisons between societies will be made.

**SOCI 381 POPULATION AND SOCIETY (4)**

Variables such as gender, race, ethnicity, age, social development, politics and environment are explored in relation to population change. The uses of population studies for consumer marketing, political campaigns, jury selection and social planning are addressed, with an emphasis on California and Sonoma County concerns.

**SOCI 382 SOCIAL MOVEMENTS AND COLLECTIVE BEHAVIOR (4)**

Social movements are a significant source of social change in modern societies. This course analyses the structure and dynamics of social movements, with attention to the roles of organizations, resources, leadership, recruitment, commitment, values, ideology, political culture and countermovements. Case studies will emphasize the civil rights, women's rights, and environmental movements in the United States.

**SOCI 383 SOCIAL CHANGE (4)**

Theories and methods for analyzing social change, past, present and future, such as: the relationship of the plow, steam engine and computer to the rise of the agricultural, industrial and information ages; the development, dissemination and impact of such major technologies as the printing press, the automobile, VCRs and computers.

**SOCI 384 SOCIOLOGY OF CONSUMPTION (4)**

This course explores how goods, commodities and market logic have saturated all forms of contemporary social life. Analysis of the theoretical ideas and historical factors that shape and influence modern consumerism are also considered. Explores how the dynamics of globalization and issues of identity politics influence consumer consumption.

**SOCI 385 SOCIOLOGY OF CULTURE (4)**

Examines the role culture plays in consensus formation, in domination, in resistance, and as a social force creating meaning in our lives. Culture refers to shared beliefs, values and norms, personal and political identities, ideologies and the things we consume daily.

**SOCI 414 METHODS SEMINAR: SOCIAL INTERACTION (4)**

Examination of everyday interaction in natural settings. Emphasis will be placed on ethnographic approaches to the understanding of social encounters, situations, identities, and human relationships. Particular attention will be given to the work of Erving Goffman. Prerequisite: SOCI 300.

**SOCI 417 SOCIOLOGY OF MENTAL ILLNESS (4)**

Identifies the social sources of behavior defined as mental illness. Compares and contrasts psychological, biochemical and sociological theories of insanity. Analyzes psychiatry and other forms of therapy, mental hospitals, the role of the mental patient, and mental health policy.

**SOCI 418 METHODS SEMINAR: SOCIAL DEVELOPMENT OF THE SELF (4)**

Examination of the social sources of self-concept, personal identity and individual world views. Special attention will be given to the theories of Mead, Cooley, James and Schutz, as well as to research techniques for the study of social identity, its development and change. Prerequisite: SOCI 300.

**SOCI 425 METHODS SEMINAR: URBAN SOCIOLOGY (4)**

Examines the social consequences of the transition from rural to urban forms of social organization. Special attention directed to the social structural, cultural and social psychological characteristics of urban life. Prerequisite: SOCI 300.

**SOCI 430 SOCIOLOGY OF LEISURE (4)**

An examination of leisure in the United States. Topics include the uses of uncommitted time by various groups, an examination of leisure subcultures, the relation of leisure patterns to other societal values and institutions, and social issues related to the increased leisure of our society.

**SOCI 431 SOCIOLOGY OF RELIGION (4)**

Study of world religions (Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism), tribal beliefs, American sects and denominations. Theories of religious development, values, change, and effects on society. Satisfies GE, category C3 (Philosophy and Values).

**SOCI 432 GROUP WORK WITH OLDER ADULTS (4)**

This service-learning course introduces students to the fundamentals of group work with older adults. The class provides an overview of the phases of group development and basic skills and techniques for facilitating effective groups. Theoretical perspectives from sociology and psychology are used to examine how groups function, the value they have for older adults, and common themes in groups for older adults. To enhance learning, students go to senior sites in the community to co-facilitating weekly intergenerational dialogue groups. Crosslisted with GERN 432 and PSY 432.

**SOCI 434 CINEMA AND SOCIETY (4)**

An examination of film as a window to the social world and of sociology as a tool to understand it. The course uses films as data that can be analyzed to learn about such sociological topics as gender, crime, collective behavior, organizations and the family. In addition, sociology is used to examine the structure and functions of film in contemporary society.

**SOCI 435 MEDIA CENSORSHIP (4)**

Seminar provides an opportunity to gain new insights into social problems through an intensive analysis of the role and impact of mass media in contemporary society. Students will analyze the levels of coverage of important news stories in the United States.

**SOCI 440 SOCIOLOGY OF REPRODUCTION (4)**

An exploration of sociological perspectives on human reproduction. Topics include reproduction and gender identity; the social implications of reproductive technologies, historical and contemporary perspectives on normal pregnancy and childbirth, the cultural context for breastfeeding, and the politics of reproductive rights and choices in the United States. Crosslisted with WGS 440.

**SOCI 441 METHODS SEMINAR: UNITED STATES BY THE NUMBERS (4)**

An empirical examination of individuals and institutions in U.S. society, with a focus on quantitative data. Teaches students about existing data sources, such as the U.S. Census and the General Social Survey, and how to analyze them. Provides preparation for work in policy analysis, organizational consulting, survey or market research, and other social science careers. Prerequisite: SOCI 300.

**SOCI 443 METHODS SEMINAR: WOMEN AND SOCIAL POLICY (4)**

Explores the effects of social politics and their implementation on women's lives. Analyzes the ideologies shaping these policies especially how gender intersects with race/ethnicity, class, sexuality, age, and religion to affect policy outcomes. Particular attention will be paid to conducting/analyzing focus groups. Prerequisite: Sociology Majors and Minors only and SOCI 300.

**SOCI 445 SOCIOLOGY OF CHILDHOOD AND ADOLESCENCE (4)**

Examines childhood and adolescence in various historical and social contexts. Topics may include gender, race and class inequalities in childhood; the nature of preadolescence and adolescence as social problems; the changing relationship between childhood and families, schools, and economy; the prolongation of adolescence; and the significance of peer groups.

**SOCI 449 SOCIOLOGY OF POWER (4)**

An analysis of the origin, development, dynamics and application of power in human interaction, social organizations and institutions. Problems of ensuring a balance of power and fairness in the exchange of needed services, benefits and rewards will be emphasized.

**SOCI 450 PUNISHMENTS AND CORRECTIONS (4)**

A consideration of the problems created by pressures to punish and control criminals, the politics of control strategies. The use and misuse of probation and parole, the concept of correction, and alternatives to incarceration. Crosslisted as CCJS 450.

**SOCI 451 SOCIOLOGY OF EDUCATION (4)**

A survey of issues concerning the structure of education in contemporary society, such as the social organization of the classroom, grading practices, political influences on schools, the contribution of education to the maintenance of capitalist society, teacher unionization, and student rights.

**SOCI 452 METHODS SEMINAR: HEALTH CARE AND ILLNESS (4)**

A dual focus on the social organization of health care and the social psychology of illness. Analyses of the structure of care, patient-practitioner relationships and treatment ideologies. Emphasis on the patient's experience of illness, intimate relationships and self-images. Prerequisite: SOCI 300.

**SOCI 461 SOCIAL WORK AND SOCIAL WELFARE (4)**

The history of social welfare and social services in modern society. Comparison of government social services with nonprofit or private social services. Overview of major social service issues such as mental health, senior services and aid to families. Recommended for anyone considering social work, counseling, or human service administration.

**SOCI 463 METHODS SEMINAR: BUREAUCRACIES AND INSTITUTIONS (4)**

Political, economic, social and psychological analyses of administrative structures. The role of formal and informal organization, ideology in bureaucracy, decision making, morale and conflict. Prerequisite: SOCI 300.

**SOCI 470 METHODS SEMINAR: CULTURE AND IDENTITY (4)**

Examines culture as central to processes of meaning making and identity. Explores identity politics as a form of resistance and domination. Focuses on the practice and analysis of ethnographic observation and in-depth interviewing. Prerequisite: SOCI 300.

**SOCI 480 METHODS SEMINAR: SOCIOLOGY OF WORK (4)**

A theoretical and empirical analysis of work in American society, examining the types of jobs open to women and men today, the rewards and dissatisfactions of these jobs, and how work has changed historically or may evolve in the future.

Prerequisite: SOCI 300.

**SOCI 482 SOCIOLOGY OF ENVIRONMENT (4)**

This service-learning course focuses on relations among major social institutions and the environment, and between national and global social inequalities and environmental degradation are examined. Differences in class, race, and gender mean that some people are disproportionately burdened by consequences of environmental degradation. Socio-environmental perspectives and practical alternatives to our acknowledged ecological crises are explored, including environmental social justice movements, critical social analysis, and alternative socio-economic approaches to consumption and employment that foster ecologically sustainable societies.

**SOCI 484 METHODS SEMINAR: SOCIOLOGY OF GENOCIDE (4)**

Using the tools of comparative historical methodology, students analyze the sociological factors typifying genocide and genocidal processes. Examination of the causes and consequences of the Holocaust and the characteristics of pre-20th century genocide, the Armenian, Rwandan and contemporary genocides are considered, as well. Prerequisite: SOCI 300.

**SOCI 485 ORGANIZATIONS AND EVERYDAY LIFE (4)**

Introduces key themes and concepts in the sociological study of organizations. Emphasis on applying theories and perspectives to organizational settings and circumstances likely to be encountered in everyday social life.

**SOCI 488 SELECTED TOPICS IN SERVICE LEARNING (4)**

Subject will vary by semester, but course has a required service learning component and concentrates on topics related to aspects of community based research and/or action research. May be repeated for credit with different topics.

**SOCI 490 TEACHING ASSISTANT IN SOCIOLOGY (1-4)**

Open only to advanced students. Intended to give students experience in assisting the instructor in a sociology course by doing research and tutoring students in the class. Cr/NC only. May be repeated for credit, but only 4 units total of SOCI 490, 493, and 495 may be used toward the major. Prerequisite: consent of instructor.

**SOCI 493 RESEARCH ASSISTANT IN SOCIOLOGY (1-4)**

Open only to advanced students. Gives students experience in assisting faculty with data collection, library research, and/or data analysis linked to sociological research and writing. Grade only. May be repeated for credit, but only 4 units total of SOCI 490, 493, and 495 may be used toward the major. Prerequisite: consent of instructor.

**SOCI 495 SPECIAL STUDIES (1-4)**

A supervised study of a particular research question or area of interest selected by the student in consultation with a sponsoring faculty member. Regular meetings will be arranged for discussions and progress evaluations, and a term paper will be submitted. Grade only. May be repeated for credit, but only 4 units total of SOCI 490, 493, and 495 may be used toward the major.

**SOCI 496 INTERNSHIP PRACTICUM (1)**

This is a concurrent course for students receiving sociology internship credit. Students will learn to view the internship experience through a sociological lens and as a means to explore workplace issues and career options. Concurrent enrollment with SOCI 499 is required when SOCI 499 is taken for the first time. May not be repeated for credit.

**SOCI 497 INTERDISCIPLINARY SEMINAR (1-4)**

Exploration of basic social problems. Resource persons from other disciplines may participate. Themes and topics will vary. May be repeated for credit.

**SOCI 498 SENIOR SEMINAR (4)**

Capstone course for the major that requires advanced sociological research. Several different topics are offered each semester. Past examples include: women and aging, food and society, gender and politics, and the sociology of time. Check department for current offerings. Required for all majors. May be repeated for credit. Prerequisite: open only to sociology majors who have completed at least 20 upper-division units in sociology, including SOCI 300, 375, and a methods seminar.

**SOCI 499 INTERNSHIP (1-4)**

For advanced undergraduates in approved internships in organizational settings. Facilitates application of sociological insights to internship site, while also encouraging contribution to organization's mission. Concurrent enrollment in SOCI 496 required when SOCI 499 taken for first time. May be repeated for credit for up to 8 units, but only 4 units may be used toward the major. Prerequisite: consent of instructor. Cr/NC only.

**SOCI 595 SPECIAL STUDIES (1-4)**

Advanced research and writing. Students work under close supervision of faculty members. Subject matter can be variable. May be repeated for credit. Prerequisites: Graduate status, consent of instructor and completed special studies form.

## Social Sciences (SSCI)

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### SSCI 300 INTRODUCTION TO PORTFOLIO DEVELOPMENT AND SPECIAL PROJECT (1)

Introduces the student to both the Liberal Studies Program and to the subject matter preparation program through a broad based, interdisciplinary approach that facilitates the student's need to understand the underlying relationship among all the courses in the program of study.

### SSCI 400 PORTFOLIO EVALUATION (3)

Contents of each portfolio will reflect the courses students have taken to complete the program, and will include organized examples of their achievement in each of the core courses in history, political science, economics and geography, and in the courses they have chosen in the breadth/perspectives part of the program.

### SSCI 495 SPECIAL STUDIES (1-4)

A supervised study of an area of interest selected student in consultation with a sponsoring faculty member. Regular meetings will be arranged for discussions and progress evaluations, and a project/paper/and/or portfolio will be submitted.

### SSCI 499 INTERNSHIP (1-3)

Prerequisite: Consent of Instructor.

## Spanish (SPAN)

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### SPAN 101 BASIC SPANISH, 1ST SEMESTER (4)

Spanish for beginners. Elementary oral expression and fundamentals of grammar; cultural readings and beginning practice in composition. Must be taken concurrently with SPAN 101L.

### SPAN 101L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) of weekly practice in the language laboratory. Cr/NC only. Must be taken concurrently with SPAN 101.

### SPAN 102 BASIC SPANISH, 2ND SEMESTER (4)

Spanish for beginners, second level. Elementary oral expression and fundamentals of grammar; cultural readings and practice in composition. Must be taken concurrently with SPAN 102L. Prerequisite: SPAN 101 or equivalent.

### SPAN 102L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) of weekly practice in the language laboratory. Cr/NC only. Must be taken concurrently with SPAN 102.

### SPAN 150 ELEMENTARY CONVERSATION (2)

Directed conversation in Spanish for elementary-level students. Includes individual and class assignments in laboratory. May be repeated for credit. Admission by consent of instructor.

### SPAN 201 INTERMEDIATE SPANISH, 1ST SEMESTER (4)

Review of fundamentals and a study of complex structural patterns. Reading of authentic cultural materials used in Spain and Latin America. Weekly compositions. Must be taken concurrently with SPAN 201L. Prerequisite: SPAN 102 or equivalent.

### SPAN 201L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) of weekly practice in the language laboratory. Cr/NC only. Must be taken concurrently with SPAN 201.

### SPAN 202 INTERMEDIATE SPANISH, 2ND SEMESTER (4)

Communicative grammar patterns in Spanish. Reading of current authentic cultural materials and weekly practice in composition. Must be taken concurrently with SPAN 202L. Prerequisite: SPAN 201 or equivalent.

### SPAN 202L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) of weekly practice in the language laboratory. Cr/NC only. Must be taken concurrently with SPAN 202.

### SPAN 250 INTERMEDIATE CONVERSATION (2)

Practice in essential communicative fluency in Spanish. Prerequisite: SPAN 102 or equivalent.

### SPAN 300 ADVANCED SPANISH LANGUAGE (4)

Activities in written and spoken Spanish designed to increase student's proficiency to the advanced level. Course will highlight selected points of grammar structure and form in the context of meaningful engagement with the language.

### SPAN 301 ADVANCED COMPOSITION AND CONVERSATION (4)

Compositions to achieve a mastery of the written language. Introduction to the preparation of critical essays and studies. Weekly compositions. Prerequisite: SPAN 300.

### SPAN 304 INTRODUCTION TO SPANISH LINGUISTICS (4)

An introduction to the linguistics structure of Spanish. Overview of core components such as Phonetics/Phonology, Morphology/Syntax, and Semantics/Pragmatics..

**SPAN 305 INTRODUCTION TO LITERATURE (4)**

A survey of representative literary works from a variety of genres, time periods, and regions. Introduction to concepts and principles of literary analysis. Prerequisite: SPAN 300 or permission of instructor.

**SPAN 306 CULTURES OF SPAIN (4)**

A study of the development of the cultures and origins of Spain, and the formation of identities in its history, literature, film and art. A survey course including lectures, discussion, readings, and writing.

**SPAN 307 CULTURES OF LATIN AMERICA (4)**

A study of the development of the cultures and origins of Latin America, and the formation of identities in its history, literature, film and art. A survey course including lectures, readings, discussion, and writing.

**SPAN 395 COMMUNITY INVOLVEMENT PROGRAM CIP (1-4)**

CIP involves students in basic community problems, performing such tasks as tutoring, coaching and reading for the blind. Students receive 1-4 units, depending on the specific tasks performed. A total of 6 units of CIP credit may be applied toward a degree.

**SPAN 400 SPECIAL TOPICS IN LINGUISTICS (4)**

Topics in Spanish Linguistics, which may include sociolinguistics, discourse analysis, historical and applied linguistics. Offered in spring semester. Satisfies GE, category C4 (Comparative Perspectives and Foreign Languages). Prerequisite: SPAN 304 or permission of instructor.

**SPAN 401 PENINSULAR LITERATURE (4)**

A detailed study of representative authors, genre, period or region. Requires discussion in class and a term paper.

**SPAN 402 LATIN AMERICAN LITERATURE (4)**

A detailed study of representative authors, genre, period, or region. Requires discussion in class and a term paper.

**SPAN 410 SPANISH TRANSLATION, THEORY, AND PRACTICE (4)**

Introduction to translation theory; service-learning translation project. Survey of principal translation resources, critical evaluation of representative translations, and examination of translation techniques. Collaboration on a translation project with authentic texts provided by agreement with public service agencies representing a wide range of fields. Prerequisite: 12 upper-division Spanish units or instructor consent.

**SPAN 426 SEMINAR IN MODERN VARIETIES OF SPANISH (4)**

The phonological and morphosyntactic character of contemporary regional spoken Spanish (Caribbean, Andean, Gauchesque, Andalusian, etc.) A practical introductory sociolinguistic analysis of regional languages in Spain and Latin America (Galician, Basque, Catalan and Indo-American languages). Prerequisites: SPAN 303 and 304.

**SPAN 427 SPANISH TEACHING METHODOLOGIES (3)**

Practical application of linguistic principles to the teaching of Spanish. Topics include discussion and practice of methods and materials for teaching Spanish, technological resources for the Spanish teacher and learner, and techniques for learner testing and evaluation. Prerequisite: SPAN 304 or consent of instructor.

**SPAN 428 SPANISH CINEMA (4)**

A study of Spanish language and culture through cinema. Prerequisite: Junior standing or higher and SPAN 306, or consent of the instructor.

**SPAN 490 SEMINAR IN LINGUISTICS (4)**

Capstone seminar focusing on a representative theme in the field of linguistics. Requires completion and presentation of a final project as an exit assessment for graduation.

**SPAN 491 SEMINAR IN LITERATURE (4)**

Capstone seminar focusing a representative theme in the field of literature. Requires completion and presentation of a final project as an exit assessment for graduation.

**SPAN 495 SPECIAL STUDIES (1-4)**

Directed, individual study on subjects of special interest. Students must prepare a proposal that is subject to the approval of the Spanish program.

**SPAN 499 INTERNSHIP (1-4)**

An internship in Spanish must combine: 1) service in a school or an agency in which Spanish is the operational language; 2) the selection of a topic for observation and study; 3) preparation of a bibliography and a reading list related to the internship activity; 4) a term paper that reflects both the internship work experience and appropriate research. For proposals and placement, please see the program coordinator.

**SPAN 595 SPECIAL STUDIES (1-4)**

Directed, individual study on a particular topic. Course may require completion of an upper-division undergraduate course in Spanish or in a related discipline relevant to the student's program of study and will include additional readings, assignments, or projects as determined by the instructor. May be repeated for credit when topics vary.

## **Supplementary English Language Development (SELD)**

### **SELD 100A SUPPLEMENTARY ENGLISH LANGUAGE DEVELOPMENT (3)**

Designed for international students and other nonnative speakers of English, this course emphasizes communication for academic purposes, and concentrates on expository writing, lecture comprehension, and analytical reading. Limited enrollment. Admission by ESL Placement Test only. Students taking this course may not register for more than 14 units of academic course work.

### **SELD 100B SUPPLEMENTARY ENGLISH LANGUAGE DEVELOPMENT (3)**

Designed for international students and other nonactive speakers of English, this course focuses on the development of academic discourse skills, with stress on strengthening proficiency in a range of oral and written American English styles. Limited enrollment. Admission by ESL Placement Test only. Exit from SELD 100B requires passing an exit exam.

## **Theatre Arts and Dance (THAR)**

### **THAR 101 MAKING THEATRE (3)**

This course is an overview of the art and practice of making theatre. Designed for non-majors, the class examines the various elements involved in creating, developing, performing, and presenting a theatrical event. Through lecture, guest speakers, hands-on projects, video, and demonstrations, students gain an appreciation of the artistry of live theatre performance. Satisfies GE, category C1 (Applied Arts Combining Studio and Theory).

### **THAR 110 DANCE FUNDAMENTALS (1)**

An introduction to the fundamentals of modern dance designed to develop body awareness, movement skills and aesthetic sensibilities. Includes improvisation, rhythm, motion and space exploration, and fundamentals of alignment. May be taken five times for credit.

### **THAR 115 DANCE STYLES (1)**

Class may focus on a particular dance style, e.g., contact improvisation, jazz or tap, or on dances of a particular era, e.g., social dance from 1935 to 1960. The emphasis will be on American dance styles. Some styles of dancing require more generalized dance background than others. May be taken five times for credit. Prerequisite: consent of instructor.

### **THAR 116 ACTING STYLES: COMEDY IMPROVISATION (1)**

Class will focus on a particular acting style, e.g. comedy, commedia del arte, farce, improvisation. May be taken four times for credit.

### **THAR 120A ACTING FUNDAMENTALS (2)**

Exploration of acting includes group and individual improvisation, physical and vocal exercises, and scene work, leading toward relaxation, physical action and believability. Class work is designed to stimulate the imagination, build self-confidence and trust, and reach the emotional reservoir of the actor. This class is recommended for singers. May be taken three times for credit.

### **THAR 120A ACTING FUNDAMENTALS (2)**

Exploration of acting includes group and individual improvisation, physical and vocal exercises, and scene work, leading toward relaxation, physical action and believability. Class work is designed to stimulate the imagination, build self-confidence and trust, and reach the emotional reservoir of the actor. This class is recommended for singers. May be taken three times for credit.

### **THAR 120B ACTING FUNDAMENTALS FOR ACTING CONCENTRATION MAJORS (2)**

Exploration of acting includes group and individual improvisation physical and vocal exercises, and scene work, leading toward relaxation, physical activity and believability. Class work is designed to stimulate the imagination, build self-confidence and trust, and reach the emotional reservoir of the actor. This class is recommended for singers. First of a seven course sequence for Acting Concentration Majors.

### **THAR 143A STAGECRAFT (2)**

Work in both theory and practice covers scenery construction techniques and drawings for the theatre. Use of tools and materials for scenery, costumes, props and lighting will be fundamental to the course.

### **THAR 143B COSTUMES (2)**

An introduction to the fundamentals of costume design and construction. Basic makeup for the stage will be examined and practiced. Prerequisite or concurrent enrollment in THAR 143A.

**THAR 144A SCENERY (2)**

Design principles are applied to scenery and properties for the stage. Includes advanced drafting and rendering techniques used to realize and execute designs for production. Prerequisite: THAR 143A.

**THAR 144B LIGHTING (2)**

Basic lighting design, including the drawing of lighting plots, rigging techniques, and the operation of light boards and systems. Work in class affords direct experience in lighting of departmental productions. Prerequisite: THAR 143A.

**THAR 145A VOICE FOR THE ACTOR (1)**

Fundamentals of voice to free the natural voice and build towards its full use. Exercises in breathing, relaxation and movement, resonance, and power will help the actor discover a direct, spontaneous connection between breath and the impulse to speak; develop greater vocal range; and explore the intricacies, implications, layers, and joys of the spoken text. May be repeated once for credit.

**THAR 145B SPEECH FOR THE ACTOR (1)**

Articulate speech and textual clarity are primary skills for the actor. This course will concentrate on the fundamentals of speech, anatomy of good sound production, standard pronunciation techniques through the International Phonetic Alphabet (IPA), and methods for clearly speaking, articulation, vocal muscularity and phrasing. Prerequisite: THAR 145A. May be repeated once for credit.

**THAR 161 BALLET I (1-2)**

This course is designed to give the modern dancer a foundation for movement in classical tradition. The vocabulary of classical ballet is presented, with emphasis on alignment and placement, with relevance to more contemporary dance forms. Exercises will be given to strengthen and stretch the body. Special attention will be given to turns and fast footwork, again to support work in modern dance. This course may be taken four times for credit.

**THAR 199 STUDENT INSTRUCTED COURSE (1-3)****THAR 200 SEEING THEATRE TODAY (3)**

Experience great performances created by modern and contemporary theatre artists. Students are engaged as audiences through videotaped productions of renowned and important performers, directors, and choreographers, and Department of Theater and Dance productions. Post-viewing small-group discussions and on-line chats ask students to further engage by reflecting upon their shared experience. Students may opt to pay an activity fee, due at registration, to see a major production in the San Francisco Bay Area. Satisfies GE, category C4.

**THAR 202 INTRODUCTION TO THE HISTORY OF DRAMA AND DANCE: ORIGINS TO 1800 (4)**

First of a two part course, this course examines Western Theatre traditions of ritual, drama, and dance at their origins, while dramatic tragedy and comedy are traced from the Golden Age of Greece through the Age of Enlightenment, roughly 1800. Added emphasis is placed on traditional Asian theatre forms. The course relates the theatre's past to how theatre is practiced today. Satisfies GE, category C1 (History of the Fine Arts).

**THAR 203 INTRODUCTION TO THE HISTORY OF DRAMA AND DANCE: 1800 TO PRESENT (4)**

Part two examines theatre, drama and dance from 19th Century to the present, including the rise of Realism and other theatre and dance forms in the 20th Century. Also considered are the American musical, and recent trends in diversity and multiculturalism, and the theatre's relationship to electronic media. Satisfies GE, category C1 (History of the Fine Arts).

**THAR 210A CONTEMPORARY DANCE I (2)**

Introduces specific contemporary techniques, with the emphasis on expanding movement range and facility. Alignment, strength, flexibility and expressiveness are concerns of this course, which is intended for students with some experience in movement fundamentals. May be repeated twice for credit.

**THAR 210B CONTEMPORARY DANCE II (2)**

Continuation of THAR 210A. Prerequisite: THAR 210A. May be repeated twice for credit.

**THAR 211 CONTEMPORARY DANCE II (2)**

Continuation of THAR 210. Prerequisite: THAR 210. May be repeated twice for credit.

**THAR 212 CONTEMPORARY DANCE LEVEL III (2)**

Continuation of THAR 211. Prerequisite THAR 210. May be repeated twice for credit.

**THAR 213 CONTEMPORARY DANCE LEVEL IV (2)**

Continuation of THAR 212. Prerequisite: THAR 210. May be repeated twice for credit.

**THAR 220A ACTING: TEXT AND SCENE STUDY (2)**

Text analysis and scoring, rehearsals, and in-class presentation of scenes drawn from realistic dramatic literature. Work with emotional memory and characterization. Core course for acting concentration majors. May be taken two times for credit. Prerequisite: THAR 120A or B or consent of instructor.

**THAR 220B ACTING: CHARACTERIZATION (2)**

The focus of this course is on aiding the actor in developing a process for creating believable dramatic characters, and bringing them truthfully to life in theatrical context. Study of life models support presentations of rehearsed scenes, which are then critiqued and developed in class. Scenes are normally drawn from realistic dramatic literature. This course is the third in the Acting Concentration sequence, and is a core course for acting majors. May be taken two times for credit. Prerequisites: THAR 120A or B, 220A or consent of instructor.

**THAR 230 STAGE MANAGEMENT (2)**

The functions of the stage manager from audition to final performance are examined. Students are trained to organize rehearsals, record actors' movements, create prompt books, and to manage a performance. Students serve as stage managers for Performing Arts productions. Prerequisites: THAR 144A and B.

**THAR 231 STAGE MANAGEMENT (1)**

Stage Management Practicum. Students serve as stage managers for Performing Arts productions. Prerequisites: THAR 230 (or co-requisite) or consent of instructor.

**THAR 240 CHOREOGRAPHY I (2)**

Fundamentals of choreography through a problem-solving approach. Studies deal with aspects of time, space, dynamics and movement, with an emphasis on perceptions of meaning, that is, on "seeing" dancing as well as "making" dancing. May be taken two times for credit. Prerequisite: THAR 210 or consent of instructor.

**THAR 244 SCENE PAINTING (2)**

Study and practice of the basics of layout and painting of scenery, from rendering to full scale. Students assist in painting scenery used in Theatre and Dance productions. Includes instruction on handling toxic materials safely and on protecting the environment. Prerequisites: THAR 143A and B, 144A and B.

**THAR 261 BALLET II (1-2)**

Continuation of study of classical ballet. Traditional barre with allegro and adagio center work. Western classical dance skills emphasizing strength, alignment, flexibility and musicality as a support for contemporary dance styles. May be taken four times for credit. Prerequisite: THAR 161 or consent of instructor.

**THAR 295 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

Credit for participation in internships arranged through individual contact with a Theatre Arts or Dance faculty member.

**THAR 300 THEATRE IN ACTION (3)**

Required of all Theatre Arts majors. An investigation of technique, form and content in drama and dance performances. Attendance at oral discussion and written critiques of 7-8 departmental, local and/or Bay Area productions will develop articulate understanding of contemporary performance and its relation to theatre history, the arts, society and culture. Activities fee payable at time of registration. Satisfies upper division GE, Category C1 (History of the Fine Arts), for juniors and seniors only. (Also available as periodic trips to New York.) May be taken two times for credit.

**THAR 301 DANCE ENSEMBLE (1-3)**

A process-and-product class in which students receive credit for major participation in areas of dance, choreography or technical work (costumes, light, decor) for presentation in public performance. Dances may be choreographed and directed by faculty, guest artists or students. May be repeated six times for credit. Prerequisite: THAR 240 or consent of instructor.

**THAR 302 DRAMA ENSEMBLE WORKSHOP (1-3)**

A production class in which students receive credit for major participation as a partner in plays directed by faculty members and guest artists. Play titles, performance venues, styles, and production approaches vary from semester to semester. May be repeated six times for credit. By audition or consent of instructor.

**THAR 303 TECHNICAL THEATRE WORKSHOP (1-3)**

A production class in which students receive credit for design, backstage and technical work in plays directed by faculty members and guest artists. May be repeated six times for credit. By audition or consent of instructor.

**THAR 310A INTERMEDIATE DANCE BLOCK (2-5)**

The Dance Block integrates the study of contemporary dance technique with the study of improvisation and anatomy for dancers. The safe and intelligent use of the body, the development of technical and improvisational skills, and artistry are emphasized. Prerequisites: THAR 210A and B, and consent of instructor.

**THAR 310B INTERMEDIATE DANCE BLOCK (2-5)**

Continuation of THAR 310A. Prerequisites: THAR 310A and consent of instructor.

**THAR 313 LECTURE SERIES (1-3)****THAR 320A INTERMEDIATE ACTING BLOCK (5)**

First in a four-course sequence intended for acting concentration majors. In-depth actor training, integrating fundamental movement and vocal acting skills, text analysis, scene-study and character work. The four-semester sequence includes 1) physical theatre, 2) verse drama, 3) 20th century non-realistic drama, and 4) exploration of contemporary theatre and an on-camera component. Prerequisite: THAR 120A or B, 220A, 220B, 145A, and 145B, and consent of instructor.

**THAR 320A INTERMEDIATE ACTING BLOCK (5)**

First in a four-course sequence intended for acting concentration majors. In-depth actor training, integrating fundamental movement and vocal acting skills, text analysis, scene-study and character work. The four-semester sequence includes 1) physical theatre, 2) verse drama, 3) 20th century non-realistic drama, and 4) exploration of contemporary theatre and an on-camera component. Prerequisite: THAR 120A or B, 220A, 220B, 145A, and 145B, and consent of instructor.

**THAR 320B INTERMEDIATE ACTING BLOCK (5)**

Continuation of THAR 320A. See description above. Prerequisite: THAR 320A, ENGL 339 and consent of instructor.

**THAR 321A INTERMEDIATE TECHNICAL BLOCK / FOUNDATIONS (2)**

Technical concentration students participate in foundations and script analysis portion of 320A acting block. Prerequisites: THAR 143A and B, THAR 144A and B, and THAR 244, and consent of instructor.

**THAR 321B INTERMEDIATE TECHNICAL BLOCK (2)**

Technical concentration students participate in foundations and script analysis portion of 320B acting block. Prerequisites: THAR 143A and B, THAR 144A and B, and THAR 244, 321A, and consent of instructor.

**THAR 322B ADVANCED SCENE STUDY (2)**

Text analysis and scoring, rehearsals, and in-class preparation of scenes drawn from realistic dramatic literature. Work with emotional memory and characterization. Core course for acting concentration majors. May be taken two times for credit. Prerequisite: THAR 120 or B or consent of instructor.

**THAR 325 AUDITION FOR THE THEATRE (2)**

This course is designed to cover the practical aspects of auditioning for the theatre, including 1) selecting appropriate material, e.g., classic/modern, dramatic/comic, musical/revue, 2) preparing audition pieces, 3) giving a winning audition, 4) evaluating performance for future guidance and 5) resume and headshoot needs. May be taken three times for credit. Prerequisite: THAR 120A or THAR 120B, or consent of instructor.

**THAR 330 MUSICAL THEATRE PRODUCTION (1-3)**

A course devoted to the study and performance of musical theatre literature. Designed for singers, actors and others interested in musical theatre.

**THAR 340 CHOREOGRAPHY II (2)**

Further development of choreographic skills and artistry. Includes problems in group choreography and relationship to fundamentals of rhythm. May be taken three times for credit. Prerequisite: THAR 240.

**THAR 343 ADVANCED SCENE PAINTING (2)**

The basics of layout techniques and painting of full-scale scenery will be realized by the class with hands-on painting of the SSU productions for that semester. This course includes sections on being safe with toxic materials, and how to keep the environment green. Prerequisites: THAR 143A, 144A and B.

**THAR 344A DESIGN FOR THE STAGE (3)**

An advanced course examining design and rendering techniques for the stage. Students learn advanced drafting techniques. Class works as a team, with students assuming various design responsibilities for selected plays. Prerequisites: THAR 144A and B and consent of instructor.

**THAR 344B DESIGN FOR THE STAGE (3)**

Continuation of THAR 344A. Prerequisites: THAR 144A and B, THAR 344A and consent of instructor.

**THAR 345 CHOREOGRAPHY III (2)**

Further development of choreographic skills and artistry, including more extensive group choreography and relationship of movement to sound and music. May be taken three times for credit. Prerequisite: THAR 340.

**THAR 350 DIRECTING WORKSHOP (2)**

A workshop in directing scenes and compositions. Rehearsal and techniques, composition, blocking, characterization, rhythm, style and script analysis are explored. Approaches of significant directors are examined. May be taken three times for credit. Prerequisites: all lower division theatre major/minor requirements, or consent of instructor.

**THAR 355 ADVANCED DIRECTING WORKSHOP (2)**

An advanced workshop in composition, technique, and directed scenes and one-act plays that are rehearsed, presented and critiqued as a means of reaching a final public performance. The course builds upon basic directing concepts and terms necessary for communication with actors and designers, while utilizing skills of research, text analysis and staging principles. Prerequisite: THAR 350 or consent of instructor.

**THAR 370A EARLY PLAYS: EVOLUTION AND INNOVATION (3)**

An examination of Western theatre from the Greeks to the Enlightenment. Plays are used as a basis for understanding how theatre reinvents itself to reflect social and historical currents. Emphasis on how dramatic literature and history can be interpreted and re-examined to resonate with today's theatre. The theatre artist is viewed as a voice for humanity as well as a force for social change. Prerequisite: THAR 202 or consent of instructor.

**THAR 370B MODERN PLAYS: EVOLUTION AND INNOVATION (3)**

Seminar on dramatic literature from the late 19th Century to our own time. Continuation of THAR 370A. Prerequisites: THAR 203 or consent of instructor. May be taken out of sequence.

**THAR 371A HISTORY OF DANCE A (3)**

Survey of history of Western theatrical dance from ritual roots to 19th century Romantic and Classical ballet. Prerequisite: THAR 202 or consent of instructor.

**THAR 371A HISTORY OF DANCE A (3)**

Survey of history of Western theatrical dance from ritual roots to 19th century Romantic and Classical ballet. Prerequisite: THAR 202 or consent of instructor.

**THAR 371B HISTORY OF DANCE B (3)**

Survey of history of theatrical dance in the 20th century, including global influences on most recent dance forms. Prerequisite: THAR 371A or consent of instructor.

**THAR 373 DANCES OF THE WORLD (3)**

An examination of dance as cultural expression primarily in non-Western, but not excluding, Western dance forms. This course will focus on ways in which dance flows across cultural boundaries, reflecting and creating culture. Satisfies upper-division GE, category C4.

**THAR 374 THEATRE OF THE WORLD (3)**

This course is an exploration of theatre traditions from around the world. Theatre is examined as the expression of specific cultures. Students learn how theatre practice influences theatre making in both Western and Eastern Cultures. Required for General Theatre Degree majors. Satisfies UD C4 general elective requirement. Prerequisite: junior or senior standing.

**THAR 375 CONTEMPORARY PLAYS AND PLAYWRIGHTS (3)**

This class explores contemporary American plays and their impact on the current American theatre scene. It offers some of the finest writing that is occurring in this country today. Students will discover theatrical trends of our own era, and how these trends relate to contemporary society and politics.

**THAR 376 PLAYWRITING I (3)**

An introduction to the art and craft of writing for the stage, for writers of diverse levels of experience. Focuses in particular on the development of character, and explores the virtues of both imaginative freedom (the first draft) and structure (the rewrite). Includes in-class writing and performance improvisations, as well as study of plays by contemporary writers. Students create original short plays (ten-minute or one-act) and have selections of their work performed for an audience at the end of the term.

**THAR 378 DRAMATURGY AND STORY ANALYSIS (3)**

This course explores how theater artists use text analysis to shape real-world production and performance work, and in so doing models the discipline and professional of dramaturgy for future theater professionals, teachers, and literary critics. Using methods drawn from the ancient Greeks (Aristotle) to contemporary cinematic story theory, students learn to determine the fundamental elements of dramatic storytelling, otherwise known as the dramaturgical essence of the play. Students read theoretical texts and read plays as case studies, and practice their own analysis through formal papers.

**THAR 380 RESEARCH (3)**

Development of research skills. May be used in practical application to programs for theatre arts productions. Students are encouraged to investigate topics of personal interest. The final research project may consist of an exploration of a particular era or phenomenon, or may be groundwork for a major creative project. May be taken three times for credit. Prerequisites: THAR 202 or 203, THAR 300 and THAR 370 or by contract with an instructor, specifying course expectations, work to be completed, regular schedule of contract hours, and assessment criteria.

**THAR 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

Please see appropriate concentration advisor.

**THAR 400 THEATRE OF TODAY (1)**

A career preparation course in topics vital to the emerging artist such as career preparation guidance, resume writing, graduate school application, professional internships and community theatre options. Professional guest speakers augment the regular faculty.

**THAR 401 SENIOR PROJECT ENSEMBLE WORKSHOP (3)**

An upper division Theatre Arts student may petition the Theatre Arts faculty for permission to do a Senior Project. Such a project is the culmination of the student's work, and may be an original work, a performance project, a research paper, a teaching project, or take some other form which represents and reflects the student's interests and accomplishments. The privilege of doing a Senior Project is awarded only to a student deemed exceptional by the department faculty. Students who participate in another student's Senior Project may enroll in Dance or Drama Ensemble to receive credit. Prerequisites: senior standing and consent of department faculty.

**THAR 410A ADVANCED DANCE BLOCK (2-5)**

A continuation of the work begun in 310A and B, with the focus on increasing technical and improvisational skill, and more refined perception of the structure and meaning of movement. Prerequisites: THAR 310A and 310B and consent of instructor.

**THAR 410A ADVANCED DANCE BLOCK (2-5)**

A continuation of the work begun in 310A and B, with the focus on increasing technical and improvisational skill, and more refined perception of the structure and meaning of movement. Prerequisites: THAR 310A and 310B and consent of instructor.

**THAR 410B ADVANCED DANCE BLOCK (1-5)**

A continuation of 410A. Prerequisites: THAR 410A and consent of instructor.

**THAR 420A ADVANCED ACTING BLOCK (2-5)**

Continuation of THAR 320A and B. See description above. Further development and integration of acting skills, including a wider scope of theatrical styles and scripts from the world's dramatic literature. Emphasis is placed on strengthening connections between performer and ensemble and between performer and director. Note: Acting concentration students enroll for 5 units. Technical Theatre concentration students enroll for 2 units. Prerequisites: THAR 300, THAR 320A and B, and by consent of instructor. THAR 320 and THAR 420 are taught concurrently.

**THAR 420A ADVANCED ACTING BLOCK (2-5)**

Continuation of THAR 320A and B. See description above. Further development and integration of acting skills, including a wider scope of theatrical styles and scripts from the world's dramatic literature. Emphasis is placed on strengthening connections between performer and ensemble and between performer and director. Note: Acting concentration students enroll for 5 units. Technical Theatre concentration students enroll for 2 units. Prerequisites: THAR 300, THAR 320A and B, and by consent of instructor. THAR 320 and THAR 420 are taught concurrently.

**THAR 420B ADVANCED ACTING BLOCK (2-5)**

Continuation of THAR 420A. Prerequisites: THAR 420A.

**THAR 421A ADVANCED TECHNICAL BLOCK / FOUNDATIONS (2)**

Technical concentration students participate in foundations and script analysis portion of 420A acting block. Prerequisites: THAR 143A and B, THAR 144A and B, and THAR 244, 321A, 321B, and consent of instructor.

**THAR 421B ADVANCED TECHNICAL BLOCK / FOUNDATIONS (2)**

Technical concentration students participate in foundations and script analysis portion of 420B acting block. Prerequisites: THAR 143A and B, THAR 144A and B, and THAR 244, 321A, 321B, 421A, and consent of instructor.

**THAR 430 SPECIAL TOPICS (1-3)**

Special topics in theatre arts selected to introduce students to recent theory, research and practice in the discipline. Consult Schedule of Classes for topic to be studied and current unit offering. May be taken two times for credit.

**THAR 444 HISTORY OF ORNAMENT (2)**

Form and function of props, furniture, and architectural structures produced by humankind through the ages. Examination of ways in which decorations, style, and uses of these objects has evolved under political, cultural, and socioeconomic influences. May include research and construction of properties for Performing Arts productions. Prerequisites: THAR 143A and 143B, THAR 144A and 144B.

**THAR 460 DRAMA FOR CHILDREN (2)**

Developing skills and resources for working with children, including creative dramatics, mime, storytelling and scripted drama. Practical experience in working with children will be gained through master teacher observation and student teaching. May be taken three times for credit.

**THAR 463 THEATRE MANAGEMENT (3)**

The study of scheduling, promotion, ticketing, house and stage management, booking, budgeting, technical theatre in terms of budgeting, and marketing theatrical productions. Practical application is gained by participation in the evening performances of the Theatre and Dance productions.

**THAR 470 DANCE FOR CHILDREN (2)**

Developing resources and skills for working with children in creative movement. Class includes participation in rhythmic activities and movement exploration, with observation and student teaching of children's dance classes. May be taken three times for credit.

**THAR 480 COORDINATED PROJECTS (1-3)**

Involvement in on- and off-campus dance or drama projects with student directors, actors, designers and/or technicians, and under faculty supervision. May be repeated six times for Cr/NC only. Prerequisite: consent of faculty supervisor.

**THAR 485 TEACHING ASSISTANT IN THEATRE ARTS (1-4)**

Teaching assistantship in Theatre Arts. Open only to upper-division students with knowledge of theatre with special interest in teaching and pedagogy. Intended to give students classroom experience by assisting an instructor in a Theatre Arts and Dance department course, or under the supervision of a faculty member, experience in tutoring students. Prior arrangements with faculty required. Graded only.

**THAR 490 THEATRE PRACTICUM (1-3)**

The use and development of a theatre skill such as acting, dancing, design, light, set or costume construction, in a commercial environment where the evaluation of the work is under professional rather than faculty supervision. May be taken four times for Cr/NC only. Prerequisite: consent of faculty advisor.

**THAR 495 SPECIAL STUDIES (1-4)**

Individualized studies in topics beyond the scope of the regular curriculum. Contract with an instructor, specifying course expectations, work to be completed, regular schedule of contact hours, and assessment criteria. Prerequisite: consent of faculty advisor.

**THAR 499 INTERNSHIP: THEATRE MANAGEMENT (1-4)**

The student will gain practical experience in various management areas of theatre. Individual internships may include public relations, publicity, programming, scheduling, box office management, funding, sales, budgeting. The unit value will be determined by each internship. May be taken three times for Cr/NC only.

## University Courses (UNIV)

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### UNIV 50 WRITING SKILLS (4)

This course focuses on developmental and learning skills in writing, including language mechanics, sentence patterns, paragraph patterns, spelling, vocabulary and developmental skills in reading, in preparation for ENGL 99. UNIV 50 is taught by Learning Skills Services staff and features an intensive learning environment. Placement in this course is based on the score on the English Placement Test (EPT). Cr/NC only. Not applicable toward graduation.

### UNIV 102 FIRST YEAR EXPERIENCE (3)

Designed to foster a supportive learning community, provide mentoring, enhance academic skills, personal skills (self-awareness, responsibility, relationships with others), and knowledge about campus resources to facilitate successful transition from high school to college. Other aspects covered are choosing a major, career exploration, health and social issues (sexual assault/harassment, alcohol/drug abuse), information competencies, code of conduct, and diversity/multiculturalism. This course is strongly recommended for first semester students.

### UNIV 103A LEARNING STRATEGIES: MATHEMATICAL THINKING (1)

An academic success course that explores mathematical thinking, problem solving, and personal and cultural approaches to mathematics. Suitable for all students who have not yet passed a GE math course. This course can be retaken for credit up to two times.

### UNIV 103B LEARNING STRATEGIES: STUDY SKILLS (1)

An academic success course that provides in-depth study skills information and practice, including effective time management, test taking, textbook reading, stress management and memory techniques. This course can be retaken for credit up to two times. Cr/NC only.

### UNIV 103C LEARNING STRATEGIES: WRITING (1)

An academic success course that reviews strategies, skills and habits that lead to improved academic writing. This course can be retaken for credit up to two times.

### UNIV 103D LEARNING STRATEGIES: ACADEMIC READING (1)

An academic success course that introduces strategies to aid comprehension and retention of academic reading skills required across the university disciplines. This course can be retaken for credit up to two times.

### UNIV 103S LEARNING STRATEGIES: SUPPLEMENTAL INSTRUCTION (1)

Discipline-specific study skills taught in the context of a designated GE course. Consent of instructor required. May be taken three times. Cr/NC only. Corequisite: enrollment in designated GE course.

### UNIV 150A FRESHMAN YEAR EXPERIENCE IDENTITY AND GLOBAL CHALLENGES (5)

Designed specifically for first-year students at Sonoma State University, provides an interdisciplinary examination of social, political, scientific, and personal aspects of identity (fall semester) and our global connections and responsibilities (spring semester). Through writing, research, and creative assignments, students develop analysis, research, and communication skills vital to success in college. Satisfies GE categories A1 and A3.

### UNIV 150B FRESHMAN YEAR EXPERIENCE IDENTITY AND GLOBAL CHALLENGES (4)

Designed specifically for first-year students at Sonoma State University, provides an interdisciplinary examination of social, political, scientific, and personal aspects of identity (fall semester) and our global connections and responsibilities (spring semester). Through writing, research, and creative assignments, students develop analysis, research, and communication skills vital to success in college. Satisfies GE categories A1 and A3.

### UNIV 199 STUDENT TO STUDENT LECTURE SERIES (1)

### UNIV 237 CAREER-LIFE PLANNING (1-2)

Offers students an opportunity to clarify their interests, values, skills, and lifestyle preferences to provide a foundation for effective career planning. Students use assessment inventories, interactive exercises, and occupational research to expand their understanding of options and plan their education and career paths, and learn job search strategies. Most appropriate for sophomores, juniors and seniors.

### UNIV 238 FOUNDATIONS OF LEADERSHIP (3)

This course examines the basic concept of leadership and the elements that comprise its practice in today's society. Through theory, discussion and experiential learning, the course provides the foundational knowledge required for actual leadership opportunities on campus and future employment in the work world. Topics include historical and modern views on leadership; the relationship between service, followership and leadership; motivation; environmental effects on leadership; and ethics and power. Concurrent enrollment in 238B is required.

### UNIV 239 ADVISING PEER MENTOR SEMINAR (1)

### UNIV 292 LIBRARY AND INFORMATION RESEARCH (1-3)

Designed to teach information research skills: how to assess the need for information, how to construct effective search strategies, how to retrieve information, and how to evaluate sources critically. Includes online research practice. Separate sections may focus on specific disciplines: social sciences, humanities, sciences and business, and may be crosslisted when appropriate.

### UNIV 295 COMMUNITY INVOLVEMENT PROGRAM (1-4)

CIP provides undeclared students the opportunity to explore career possibilities while providing much needed community service. Students may earn credit for volunteer service in a variety of organizational settings that may help them clarify their career goals and to declare a major appropriate for them. Requirements are 30 hours of community service per unit, a minimum of 2 meetings with advisor or faculty sponsor and a final paper. A maximum of 6 units of CIP may be used toward graduation. Cr/NC only.

### UNIV 310 PORTFOLIO WORKSHOP (3)

A mentoring seminar for students re-entering higher education. This orientation course has as its primary goal the connecting of past experiences with present academic opportunities through an academic plan for graduation. Course activities include discussion of learning theory, completion of learning styles inventories, introduction to educational uses of information resources and technology, and the compiling of a portfolio, including an expanded resume, an intellectual autobiography, two learning essays and an individual academic plan. On instructor recommendation, portfolios may be evaluated for degree credit for prior learning through the Faculty Evaluated Prior Learning Program. Prerequisites: completion of GE areas A2 and A3.

### UNIV 375 STUDY ABROAD (12)

Academic programs in institutions outside the country. Enrollment is by permission of the Office of International Programs. Cr/NC only.

## **Women's and Gender Studies (WGS)**

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### **WGS 255 INTRODUCTION TO QUEER STUDIES (3-4)**

This interdisciplinary course offers an introduction to the field of Queer Studies by analyzing the role of race, gender, sexuality and nationalism in the social construction of modern gay, lesbian, bisexual, transgender, and queer (GLBTQ) identities. Students also learn of queer theoretical approaches to politics, culture and society. Satisfies GE, category D1.

### **WGS 280 WOMEN'S BODIES: HEALTH AND IMAGE (3)**

This course examines research and theory about the health and body image concerns of women across race, ethnicity, sexuality, and class throughout the life cycle. This includes the gender politics of medical research, mental health, body image, reproductive health and chronic illness. Students will be exposed to current theoretical work and writing about the body in society. Satisfies GE, category E.

### **WGS 285 MEN AND MASCULINITY (3)**

This course examines construction of masculinity across axes of race, ethnicity, class, nation and ability. Utilizing a multidisciplinary perspective, this course addresses various theories of manhood and masculinity and the impacts on men's and boys' lives in various arenas such as relationships, family, the media, sports, work, crime, and health. Satisfies GE, category E.

### **WGS 301 GENDER STUDIES LECTURE SERIES (1-4)**

A weekly lecture series (or occasional workshops) offering presentations and discussions of current issues from feminist and/or queer perspectives. There is usually a semester-long focus on a particular topic. The lectures are open to the community. May be repeated for credit.

### **WGS 311 SPECIAL TOPICS IN WOMEN AND GENDER STUDIES (1-4)**

A variable-topics seminar focusing upon intensive study of issues related to WGS in society. May be repeated for credit.

### **WGS 325 YOUTH: GENDER PERSPECTIVES (3-4)**

This course examines youth, focusing on the complex interconnections of gender, race/ethnicity, social class, sexuality, and other factors in understanding the experiences and social conditions of youth in the U.S., as well as the methodological issues that arise in conducting research on youth. This course requires community service learning.

### **WGS 330 PSYCHOLOGY OF WOMEN (3-4)**

An exploration of the psychology of women, with attention to issues of power and conflict, intimacy and dependence, special concerns in therapy for women, and the impact of race, class, ethnicity and sexual preference on women's psychological development. Crosslisted as PSY 404.

### **WGS 350 GENDER, SEXUALITY AND FAMILY (3-4)**

An exploration of changing ideals and practices of gender, sexuality and family life in the United States, drawing especially on recent feminist scholarship. Topics for reading and discussion will focus on both women and men. Fulfills upper-division GE, category E (The Integrated Person).

### **WGS 365 WOMEN'S HISTORY AND WOMEN'S ACTIVISM (3-4)**

This course will take an activist-historical perspective on the history of American women. We will study historical figures, events, and movements central to the history of feminist activism for equality and social justice. The class will address the politics of writing women into history and documenting the diversity of women's activism.

### **WGS 370 GENDER IN ASIAN AMERICA (3-4)**

This interdisciplinary course examines gender, race, class, and sexuality in Asian America. We consider how Asian American women and men fit into debates about sexism and racism in the United States - historically and contemporarily. Topics include Asian American participation in women's/civil right movements as well as popular culture representations.

### **WGS 375 GENDER, RACE AND CLASS (3)**

An exploration of the intersection of gender, race, and class in the lives of U.S. women and men through historical approach to the formations of social and political movements, the construction and policing of identity categories, and demands for equality and justice. Satisfies GE, category D1 (Individual and Society, meets Ethnic Studies requirement).

### **WGS 380 GENDER AND SOCIAL MOVEMENTS (3)**

Social movements organized around gender issues and identities are significant sources of social change in modern societies. This course analyzes the structure and dynamics of social movements based on gender, with attention to the roles or organizations, resources, leadership, recruitment, commitment, values, ideology, political culture and countermovements. Case studies will emphasize the women's suffrage movement, the women's peace movement, the feminist movement that began in the 1960s as well as its offshoots and countermovements, the gay and lesbian rights movement, and recent men's movements.

### **WGS 385 GENDER AND GLOBALIZATION (3-4)**

This class will use an interdisciplinary approach to explore how gender, race, class, sexuality, nation, and colonialism intersect locally and globally and to understand how gender shapes the lived realities of women world-wide. We will frame our analyses within an understanding of the processes of globalization and global communities.

### **WGS 390 GENDER AND WORK (4)**

This course explores intersections of gender, race, class, immigration and nation within the U.S. labor market. We examine situations facing workers across economic sectors ranging from professionals to service sector labor. Topics may include: juggling work and family, discrimination/harassment, welfare reform, globalization, and activism/resistance to workplace challenges. Prerequisite: WGS 280, 285, 350, 375 or instructor consent.

### **WGS 395 COMMUNITY INVOLVEMENT PROGRAM (1-4)**

The purpose of CIP is to encourage student involvement in the community. Units may be earned for work related to WGS. Cr/NC only.

### **WGS 399 STUDENT INSTRUCTED COURSE (1-4)**

An introductory or advanced course designed by a senior or graduate student and taught under the supervision of faculty sponsor(s). Cr/NC only.

### **WGS 425 FEMINIST RESEARCH METHODS (3-4)**

A feminist critique of traditional methods of constructing knowledge and research practices and a discussion of gender-inclusive research strategies. Students will be given instruction in library and electronic information retrieval.

### **WGS 440 SOCIOLOGY OF REPRODUCTION (4)**

An exploration of sociological perspectives on human reproduction. Topics include reproduction and gender identity, the social implications of reproductive technologies, historical and contemporary perspectives on normal pregnancy and childbirth, the cultural context for breastfeeding, and the politics of reproductive rights and choices in the United States. Crosslisted with SOCI 440.

**WGS 455 QUEER THEORY, QUEER LIVES (4)**

This interdisciplinary course offers advanced work in queer studies by looking at the production of theories about same-sex sexualities in history, culture, and politics. The course presents queer theory in conjunction with critical race theory, feminist theory and post-colonial studies.

**WGS 475 CONTEMPORARY FEMINIST THEORY (4)**

This course examines both historical and contemporary trends in feminist theory. Students examine how feminist theory might address the complex relationship between race, ethnicity, gender, sexuality, class, and nation as they relate to the production of knowledge, the implementation of theory and practice, and social change/activism. Prerequisite: WGS 280, WGS 285 or WGS 350, or by instructor's consent.

**WGS 485 SENIOR SEMINAR (4)**

This course provides WGS students an opportunity for advanced study on a special topic each semester (determined by instructor). The seminar format allows students an intensive experience and heightened responsibility for course content. The course should be taken during the student's senior year. Prerequisite: WGS 475.

**WGS 492 SYLLABUS DESIGN (1)**

Students work on an individual basis with a faculty member to develop reading materials, lecture and discussion topics, and assignments appropriate to the teaching of a specific student-taught course in women's and gender studies. Student-taught courses must be approved by the coordinator, and students must follow established procedural guidelines for teaching in the women's and gender studies program. Most student teachers are required to take WGS 492 before teaching, and WGS 493 while teaching.

**WGS 493 TEACHING SUPERVISION (1)**

Students acting as teaching assistants or student-teachers enroll in this to gain professional skills development with a faculty member.

**WGS 495 SPECIAL STUDIES (1-4)**

Upper-division students may elect to do an independent research or action project under the direction of a women's and gender studies faculty member.

**WGS 499 INTERNSHIP (1-4)**

Supervised training and experience for advanced students in community agencies concerned with women's and men's issues and gender change. Student teaching of a student-taught university course is another form of internship. At present we offer credit (and not a grade) for student teaching and off-campus projects. Internships may be paid.

**WGS 500 SEMINAR IN FEMINIST THEORY AND RESEARCH IN SOCIAL SCIENCES (3)**

A survey of feminist critiques of social science theory and research in various disciplines (depending on student interest) - anthropology, history, political science, psychology and sociology. A survey of feminist attempts to reformulate and transform social science theory and methods, including debates and disagreements among feminist scholars. Requirements will include an individual research project and analysis. Prerequisite: at least one course in a social science and at least one course that focuses on women or gender (course may be at graduate or undergraduate level).