

COURSE DESCRIPTIONS

American Multicultural Studies (AMCS)

AMCS 165A HUMANITIES LEARNING COMMUNITY (4)

AMCS 165 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas, and fulfills GE Ethnic Studies.

AMCS 165B HUMANITIES LEARNING COMMUNITY (4)

AMCS 165 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas, and fulfills GE Ethnic Studies.

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 Area A1. Prerequisites: Completion of GE Categories A2 and A3. Students who received a passing grade in AMCS 225 may not enroll in AMCS 200 without instructor consent.

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 Area D1. This course satisfies one of the core requirements of the AMCS major.

AMCS 225 HOW RACISM WORKS: AMERICA IN BLACK AND WHITE (4)

Students analyze the ideological aspects and material conditions of American life through an in-depth examination of the impact of race and ethnicity on U.S. history and its cultural, political, and social institutions. The course will concentrate particularly on investigating how racism works in the 21st century through the study of literature and values. Fulfills GE Area C2 and the Ethnic Studies requirement. Students who received a passing grade in AMCS 200 may not enroll in AMCS 225 without instructor consent.

AMCS 245 THE FUTURE OF IDENTITY: SOCIAL MEDIA AND THE MULTICULTURAL SELF (4)

Students will explore what it means to be a multicultural self through the creative uses of technology and social media. This course is based on the premise that identities shaped by social media can be grounded in the principles of participatory presence of self and place that heals the disconnect with ethnicity, community, place, and history. Satisfies GE Area C2 and Ethnic Studies.

AMCS 260 ETHNICITY IN THE ARTS, CULTURE, AND MEDIA (4)

Students will explore the impact that the arts, media, and humanities have had on perceptions of race, ethnicity, and identity in the United States. The course will integrate a wide variety of forms — including film, theater, and music — to encourage student appreciation of artistic endeavors. Fulfills GE Area C1 and the Ethnic Studies requirement.

AMCS 273 AMERICAN DIVERSITY: PAST, PRESENT, FUTURE (4)

This course explores the relationships between race, ethnicity, and identity through close readings of social, historical, and cultural texts. At the heart of the course is an exploration of how race and ethnicity have impacted collective understandings of this nation's morals and values. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: completion of GE Category A2 (Engl 101 or ENGL 100B) required.

AMCS 301 AFRICANA LECTURE SERIES (1)

A weekly lecture series offering presentations and discussions that focus on historical and contemporary topics relating to people of African descent. This includes, but is not limited to, African Americans, Continental Africans, Afro-Caribbeans, and Afro-Latinos. This lecture series is in honor of Dr. Levell Holmes and his contributions to the Sonoma State University community. Lectures are open to the community. May be repeated for credit.

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 Area D1.

AMCS 350 ETHICS, VALUES, AND MULTICULTURALISM (4)

This course examines theories and discourses of race, ethnicity, and multiculturalism and their impact on American thought and practice. Students will explore questions of ethics and values that shape the U.S. as a multicultural society and learn about conceptual tools they can apply in thinking critically about these issues in the various contexts they live in. Satisfies GE Area C2, and the Ethnic Studies requirement.

AMCS 355 LANGUAGE AND ETHNICITY (4)

An interdisciplinary approach to understanding the interrelationships between language, ethnicity, and the symbolic conflicts over language issues in the U.S. Explores the politics of language — e.g. the English-Only debates, bilingual education issues, and minority language rights and cultural issues — and their impact on different ethnic groups. Examines the responses of affected groups through their literary and creative expressions. Satisfies the Ethnic Studies requirement and GE Area C3.

AMCS 360 ETHNIC LITERATURE (4)

A survey of representative novels, short stories, essays, biographies, and poetry of various ethnic authors in the United States. This course may also provide an in-depth study of one or more specific ethnicities (e.g. Asian American, African American, the poetic tradition in ethnic literature, women in ethnic literature, etc.) and may include multimedia instruction such as film, music, and visual art. Satisfies GE Area C2. Satisfies the upper-division Ethnic Studies requirement.

AMCS 370 GENDER IN ASIAN AMERICA (4)

This course originates in WGS 370. 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. Cross-listed as WGS 370.

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 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- or senior-level standing with satisfactory completion of either AMCS 210 or 255. By individual arrangement with instructor.

AMCS 390 INDEPENDENT FILM STUDY (1-2)

In this course students will attend Sonoma Film Institute screenings or other film-related lectures or events, and will submit a written film analysis following each film screening. Students must consult with their advisor to enroll in this course. Pre or corequisite: LIBS 320C "Intro to Film Studies/Film Theory and Narrative." This course is repeatable for a maximum of 4 units of course credit. Cross-listed with LIBS 390.

AMCS 392 ETHNIC IMAGES IN FILM AND MEDIA (4)

An examination of representative and significant works in film and other visual media tracing the evolution of racial and ethnic images from their earliest to latest manifestations. Examines how systems of representation shape the racial and ethnic discourses in U.S. society. Satisfies GE Area C1 and the Ethnic Studies requirement.

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

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 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 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.

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. Students engage in semester-long research projects. Students can substitute CALS 458 Research and Methodology for this course.

AMCS 481 SPECIAL TOPICS (1-4)

Please refer to the current Schedule of Classes.

AMCS 495 SPECIAL STUDIES (1-4)

Independent study. Prerequisites: AMCS 210 or 255, a core upper-division course, approval of the supervising faculty member, and approval of the department chair. May be repeated for credit.

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)

ANTH 200 INTRODUCTION TO LINGUISTIC ANTHROPOLOGY (3)

This introduction to the anthropological study of language surveys core topics in linguistics (e.g., phonetics, morphology, syntax, semantics, and pragmatics) and the relationship of language to social, cultural, and psychological factors. Nonverbal communication, evolution of language abilities, and historical linguistics are included, with linkages to the other subfields of anthropology. Satisfies GE Area D5.

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 Area 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, Area 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 and its four major subfields in the contemporary world. Identification of significant issues, schools of thought, and historic persons. Training in the analysis of primary sources, scholarly procedure, library research, bibliography, and professional format and style. Prerequisites: at least one of the following: ANTH 200, 201, 202, or 203. Restricted to Anthropology juniors, seniors, and graduate students only.

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 GE Area B2 and upper-division or graduate 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 and the sex differences in morphology and behavior, ecological basis of sex differences in hominin evolution. Prerequisites: completion of GE Area B2 and upper-division or graduate standing, or consent of instructor.

ANTH 303 HUMAN BEHAVIORAL ECOLOGY (4)

This course is an introduction to human behavioral ecology, the application of evolutionary and biological models to the study of human behavioral variation. Topics of discussion will include optimal foraging theory, kin selection, resource transfer, mate choice, and parental investment. Prerequisites: completion of GE Area B2 and upper-division or graduate 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. May be repeated for credit if topic differs. Prerequisites: completion of GE Area B2 and upper-division or graduate standing, or consent of instructor.

ANTH 313 PRIMATE BEHAVIORAL ECOLOGY (4)

This course will familiarize students with our closest living relatives, the primates. Topics include taxonomy, diets & dietary adaptations, ranging behavior, cooperation & competition, community ecology, and conservation. Prerequisites: completion of GE Area B2 and upper-division or graduate standing, or consent of instructor. This course is strongly recommended in preparation for ANTH 414.

ANTH 315 FORENSIC ANTHROPOLOGY THEORY AND PRACTICE (4)

This course explores the theories underlying forensic anthropology and how they are put into practice. Topics include a history of the discipline; professional responsibilities in the autopsy suite and courtroom; taphonomy and the estimation of time since death; techniques and contexts for positive identification; and depictions of forensic anthropologists in popular culture. Examination of case studies at local, national, and international scales. Prerequisite: completion of GE 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 Area E (The Integrated Person). Prerequisite: completion of GE Area B2 and open to juniors, seniors, and graduate students only.

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 324 ARCHAEOLOGY AND THE BIBLE (4)

An exploration of the archaeology and history the ancient Near East, from the earliest human settlements through the Persian empire (ca. 10,500-332 BCE). Societies described in the Hebrew Bible are emphasized, with topics ranging from the rise of the state and international trade, to the identities and everyday lives of men, women, and children. The history and socio-political impacts of "Biblical Archaeology" are also examined. Prerequisites: 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. Prerequisite: upper-division standing or consent of instructor.

ANTH 329 BIOARCHAEOLOGY (4)

Bioarchaeologists use human remains obtained from archaeological settings to reconstruct past lifeways. Key concepts include recovery and analysis of human remains, human skeletal anatomy, disciplinary ethics, bodily expressions of disease and behavior, social complexity and population affinity, and embodied identity. Use of case studies reveals how bioarchaeological methods and theories are implemented around the world. Prerequisite: 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 Anthropology subfield requirement for the Anthropology major. Satisfies upper-division GE, Area 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 Area 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 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 focuses on the study of environmental issues. The course covers 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. Prerequisite: upper-division standing or consent of instructor.

ANTH 352 GLOBAL ISSUES (4)

This course explores anthropological perspectives on global issues. The course includes 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, and global impacts of diseases such as HIV/AIDS and SARS. Topics vary with each offering; may be repeated for credit with consent of instructor. Prerequisite: 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.) are 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. Prerequisite: upper-division or graduate standing or consent of instructor.

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, and verbal and nonverbal communication. Prerequisites: upper-division standing and ANTH 200 or ANTH 203 or ENGL 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. Prerequisites: ANTH 200 or ANTH 203 or ENGL 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. Prerequisites: ANTH 200 or ANTH 203 or ENGL 203 and upper-division standing or consent of instructor.

ANTH 384 TOPICS IN LINGUISTIC ANTHROPOLOGY (3-4)

Topics may include: language acquisition, ideology, policy, revitalization, evolution, creolization and language contact, semantics and pragmatics, and sociolinguistics. Topics vary with each offering. Prerequisites: ANTH 200 or ANTH 203 or ENGL 203 and upper division standing, or consent or 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 ANTH 203 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. 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: Anthropology majors only, upper-division standing, and consent of instructor. May be repeated for credit.

ANTH 396 TOPICS IN ANTHROPOLOGY (1-4)

In-depth examination of a topic within anthropology. Topics vary with each offering. Maybe repeated for credit if topic differs. Prerequisite: upper-division standing or consent of instructor.

ANTH 399 STUDENT INITIATED COURSE (1-3)

Student-initiated and -instructed courses on topics that enrich or extend current departmental offerings. Cr/NC only. May be repeated for credit. Course restricted to Anthropology Junior, Senior and Graduate students 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 for credit. Instructor consent required.

ANTH 401 SCURF PLANNING AND PUBLICATION (1-2)

Planning, organizing, and implementing the Society and Culture Undergraduate Research Forum. Students learn about all aspects of conference organization and proceedings publication. The fall semester emphasizes event production, abstract solicitation and selection, publicity, and budgeting. The spring semester emphasizes the latter categories as well as journal editing, layout, and publication. May be repeated for credit. Prerequisite: 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: completion of GE Area B2 and upper-division standing, or consent of instructor.

ANTH 414 PRIMATE OBSERVATIONAL METHODS (4)

In this research methods course, students will learn how to describe and analyze primate behavior through direct observations of local fauna and captive primates at Bay Area zoos. Prerequisites: completion of GE Area B2 and upper-division or graduate standing, or consent of instructor. Completion of ANTH 313 is strongly recommended.

ANTH 415 FORENSIC ANTHROPOLOGY METHODS (4)

Combined lecture/laboratory course for students interested in the methods used by forensic anthropologists. Topics include learning the anatomy of the human skeleton; creating a biological profile by estimating age, sex, stature, and ancestry; identifying the effects of trauma and pathology on bone to discover cause and manner of death; and understanding forensic anthropologists' role in crime scene investigation. Prerequisites: completion of GE Area B2 and upper-division standing, or consent of instructor.

ANTH 420 ARCHAEOLOGY METHODS (4)

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. Upper division standing.

ANTH 444 MATERIAL CULTURE STUDIES (4)

An interdisciplinary examination of the objects, structures, technologies and environments humans create and use. Compares approaches from anthropology, archaeology, folklore, history, vernacular architecture, and cultural landscape studies. Introduces students to material culture study methods, emphasizing techniques of identifying, recording, analyzing and interpreting a wide range of material culture categories. Prerequisites: Class open to Juniors, Seniors, and Graduate Students only, or consent of instructor.

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 versus specialization. Prerequisites: ANTH 200 or 203 and upper-division standing or consent of instructor.

ANTH 454 ETHNOGRAPHIC FIELD SCHOOL (4)

A field school designed to help students 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, and 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. Prerequisites: ANTH 200 or ENGL 203 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. Prerequisite: Anthropology majors with senior-level 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: Upper-division standing, a minimum 3.0 GPA and consent of instructor. May be repeated for credit.

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 and 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 or graduate standing and 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: Upper-division or graduate standing and consent of instructor. May be repeated for credit.

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. Prerequisites: Upper-division or graduate standing and 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: Open to graduate students only and permission of the graduate coordinator required. 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.

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 and 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. Prerequisites: graduate standing and consent of instructor.

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. Prerequisites: graduate standing and consent of instructor. May be repeated for credit.

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. Prerequisites: 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. Prerequisites: graduate standing and consent of instructor. May be repeated for credit.

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. Prerequisites: 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. May be repeated for credit.

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). Prerequisites: 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). Prerequisites: 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)

ARTH 160A HUMANITIES LEARNING COMMUNITY (4)

ARTH 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas. Students taking this course can not get credit for ARTH 210.

ARTH 160B HUMANITIES LEARNING COMMUNITY (4)

ARTH 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas. Students taking this course can not get credit for ARTH 210.

ARTH 199 STUDENT-INSTRUCTED COURSE (1-4)

Please see current Schedule of Classes for details. May be repeated for credit.

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 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 Area C1 (Fine Arts). Students who have taken ARTH 160A will not receive credit for taking ARTH 210.

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 Area C1 (Fine Arts). Students who have taken ARTH 160B will not receive credit for taking ARTH 211.

ARTH 270A SURVEY OF ISLAMIC ART (3-4)

Course examines the formation, establishment and variations of Islamic artistic culture from its beginnings in the 7th century through the 20th century. Satisfies GE, category C1 (Fine Arts).

ARTH 270B SURVEY OF ASIAN ART (3-4)

Course examines artistic developments in Asia (including China, Japan and India) from prehistoric periods to the present. Satisfies GE, category C1 (Fine Arts).

ARTH 273 ARTS AND LITERATURE: CRITICAL AND CREATIVE READINGS AND RENDERINGS (4)

This course explores the relationship between literature and art, paying attention to interrelationships between literary and artistic works and exploring different aspects of creativity, history and culture found in art and literature. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: completion of GE Category A2 (Engl 101 or ENGL 100B) required.

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.) May be repeated for credit.

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. May be repeated for credit.

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 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. Prerequisites: 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. May be repeated for credit.

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. Prerequisites: upper-division Art History standing or a related major and concurrent enrollment in or completion of ARTH 490H.

ARTH 420 PRE-CLASSICAL ART (3-4)

A course exploring topics in the history of the arts and architecture of Egypt, Crete, and/or the Near East before the conquests of Alexander the Great.

ARTH 422 GREEK ART (3-4)

A course exploring topics in the history of Greek art and architecture from the Proto-Geometric through the Hellenistic periods (ca. 1000 B.C.-100 A.D.).

ARTH 424 ROMAN ART (3-4)

A course exploring topics in 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 3rd 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 course exploring topics in 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)

A course exploring topics in painting, sculpture, and architecture in Italy in the 14th and 15th centuries.

ARTH 442 LATER ITALIAN RENAISSANCE ART (3-4)

A course exploring topics in painting, sculpture, and architecture of Italy in the 16th century. Includes High Renaissance and Mannerist periods.

ARTH 444 NORTHERN RENAISSANCE ART (3-4)

A course exploring topics in painting, printmaking, sculpture, and architecture of the 14th-16th centuries in Europe, apart from Italy.

ARTH 450 BAROQUE ART (3)

A course exploring topics in painting, architecture, and sculpture of the 17th century. Content emphasis may vary. May be repeated with consent of instructor.

ARTH 452 ART IN THE AGE OF ENLIGHTENMENT (3-4)

This course examines topics in the 18th century art and may include examinations of painting, architecture, sculpture and printmaking. Themes include the relationship between art and social class, influences of enlightenment philosophy, women and the arts, art and revolution. Topics vary. May be repeated for credit with the consent of the instructor.

ARTH 454 ART AND THE EMERGENCE OF MODERNITY (3-4)

This course explores 19th century art movements such as Impressionism, Neo-impressionism, Symbolism in relation to the changes that marked the Nineteenth Century: the development of the democratic nation state, colonialism, the rise of social movements, the shift from private court patronage to a free market economy, the development the dealer-critic system, the invention of photography, scientific advances in optics, and the discovery of the unconscious in psychology, shifts in gender roles. Satisfies upper-division GE, category C (Fine Arts). Prerequisite: HUM200 or ENGL 101 or ENGL 100B or LIBS 101 required.

ARTH 456 THE HISTORY AND THEORY OF PHOTOGRAPHY (3-4)

This course examines photography as a cultural object and a form of art from its invention to the digital age. Topics may include: photography as art, photography and the avant-gardes, photography and gender, photography and memory, photography as scientific or juridical proof, documentary and photojournalism, photography and the construction of identities, photography and place, the transformation of photography in the digital age.

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 Area 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.

ARTH 464 AVANT-GARDES OF THE EARLY 20TH CENTURY (3-4)

This course explores topics in the history of art from approximately 1900-1945: Examines avant-garde movements such as Fauvism, Cubism, Expressionism, Primitivism, Constructivism, Dada and Surrealism with relation to the cultural upheavals of the early 20th Century including industrialization, revolution, WWI, shifts in gender roles and the rise of fascism. Satisfies upper-division GE, category C1 (Fine Arts). Prerequisite: HUM 200 or ENGL 101 or ENGL 100B.

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

A course exploring European and American developments in late modern and early postmodern art with a focus 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, along with the social, economic, and political context within which the work was created. Reading and writing assignments on designated topics will be required. Satisfies upper-division GE Area C1 (Fine Arts). Prerequisite: HUM 200, ENGL 101, or ENGL 100B.

ARTH 466 CONTEMPORARY ART (3-4)

A course exploring international developments in postmodern and current art with a focus on work made from 1980 and to the present. Movements and styles such as Neo-Expressionism, Appropriation, Graffiti, Body and Identity Art, and the use of new technology will be discussed in depth. In addition, we will examine the critical theories necessary for a thorough understanding of contemporary art and artists. Reading and writing assignments on designated topics will be required.

ARTH 467 MUSEUM COLLECTIONS MANAGEMENT (3)

A course on the principles and practices of managing and caring for today's museum collections. Classes will relate to different types of collections including art, history, and anthropology, as well as different models of museums: public, private, and corporate. Topics include accessioning, object handling and storage, preventative conservation, collections planning, exhibitions, and loans. Students will gain an overall understanding of the physical, ethical and legal care of museum collections. Guest speakers and off-campus field trips to tour behind the scenes collections at Bay Area museums will be planned.

ARTH 468 CURATORIAL PRACTICE (3)

A lecture and activity seminar designed to explore the changing role of the curator in relation to contemporary art, both within and beyond traditional presenting institutions. In addition to a historical review of curatorial models, the course will address such subjects as curatorial theory; assessment and interpretation; writing for curators; public speaking; research methodology for curators; and exhibition theory and practice. Students will also participate in at least one exhibition project. Several guest speakers and field trips will be scheduled.

ARTH 470A SURVEY OF ISLAMIC ART (3-4)

Course examines the formation, establishment and variations of Islamic artistic culture from its beginnings in the 7th century through the 20th century. May be repeated with consent of instructor.

ARTH 470B ASIAN ART (3-4)

Course examines artistic developments in Asia (including China, Japan and India) from prehistoric periods to the present. May be repeated with consent of instructor.

ARTH 474 TOPICS IN ISLAMIC ART (3-4)

A course dealing with intensive study of a particular topic of Islamic Art. The topic will vary from semester to semester and may include the Age of Empire, Islamic Spain or other topics. Course may be repeated.

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

A 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 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 490H PRO-SEMINAR IN ART HISTORY METHODS (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 non-majors: consent of instructor; students must have completed two Art History papers in upper-division courses to be admitted.

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 493 MUSEUM AND GALLERY MANAGEMENT (3)

A seminar surveying the management of nonprofit museums and other visual arts organizations in the United States and the role of these institutions within society. Topics range from practical information, such as the structure of nonprofit organizations, the role of a board of trustees, fund-raising, financial management, marketing, and the growing use of technology in the arts, to theoretical concepts being discussed within the field. Guest lecturers and field trips will be scheduled throughout the semester. (Offered every three or four semesters).

ARTH 494 MUSEUM THEORY AND PRACTICE (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. May be repeated for credit.

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.) May be repeated for credit.

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)

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. May be repeated for credit.

ARTS 104 STUDIO ART FOUNDATIONS (4)

This course is designed to encompass the primary learning objectives of ARTS 101 and 102 into one intensive studio experience. Geared specifically to incoming Art History and Studio Art majors, students will be asked to participate in a variety of activities and exercises that are designed to break down preconceived notions of art-making and the creative process, introduce a conceptual focus, and apply the basic principles of 2- and 3-dimensional design. Concurrent registration in ARTH 160 A/B is suggested. This course, when taken in conjunction with ARTS 103, meets the basic requisite for studio courses on the 200 level. Laboratory fee payable at registration.

ARTS 105 MEDIA ART FUNDAMENTALS (3)

Media Art Fundamentals is a foundation course exposing students to the various software applications used in media art production. Students will gain experience with the creation of still and moving images, sound recording, online presentations and digital printing.

ARTS 199 STUDENT-INSTRUCTED COURSE (1-4)

Please see current Schedule of Classes for details. May be repeated for credit.

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 210 INTRODUCTION TO DIGITAL PHOTOGRAPHY (1-3)

This is a rotating special topics in Photography studio art course. Course content may include alternative processes, interdisciplinary practices, moving image, sound recording, handmade artist books and other experimental approaches to image making. May be repeated for credit. Prerequisite: ARTS 105 or consent of Photography Director or Department Chair.

ARTS 212 INTRODUCTION TO ANALOGUE / DARKROOM PHOTOGRAPHY (3)

An introduction to black and white analog 35mm photography and darkroom printing. Prerequisite: ARTS 210 or consent of Photography Director or Department Chair

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.

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.

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.

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.

ARTS 273 ARTS AND LITERATURE: CRITICAL AND CREATIVE READINGS AND RENDERINGS (4)

This course explores the relationship between literature and art, paying attention to interrelationships between literary and artistic works and exploring different aspects of creativity, history and culture found in art and literature. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: completion of GE Category A2 (Engl 101 or ENGL 100B) required.

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. Prerequisites: 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. May be repeated for credit.

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. May be repeated for credit.

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. May be repeated for credit.

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. May be repeated for credit.

ARTS 305 SPECIAL TOPICS IN PHOTOGRAPHY (3)

This is a rotating special topics in Photography studio art course. Course content may include alternative processes, interdisciplinary practices, moving image, sound recording, handmade artist books and other experimental approaches to image making. Prerequisite: ARTS 212 or consent of Photography Director or Department Chair. May be repeated for credit.

ARTS 308 STUDIO LIGHTING (3)

A studio course that introduces concepts and techniques of studio lighting; medium and large format analog camera operation and advanced darkroom printing techniques. Prerequisite: ARTS 212 or consent of Photography Director or Department Chair. May be repeated for credit.

ARTS 310 INTERMEDIATE DIGITAL PHOTOGRAPHY (3)

In this studio course intermediate theory, techniques and processes of digital photography will be explored with an emphasis on quality output. Students gain familiarity with a variety of input and output options and multiple image editing applications with emphasis placed on the creative use of new technology. Prerequisite: ARTS 210 or consent of Photography Director or Department Chair. May be repeated for credit.

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. May be repeated once for credit.

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. May be repeated once for credit. 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. May be repeated once for credit.

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. May be repeated once for credit.

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. May be repeated for credit.

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. Prerequisites: 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 and 329. Lab fee payable at time of registration. May be repeated once for credit.

ARTS 430 LARGE SCALE CLAY AND INSTALLATION OF 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. Prerequisites: 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 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, field trips. 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, and 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 437 COMMENCE: SCULPTURE PROJECTS (3)

In this intensive studio course, students learn the practical steps of creating public art projects including proposal writing, model building, oral presentations and fabrication. The large-scale sculptures are displayed throughout campus during the final weeks of the spring semester, including commencement. Critiques, field trips and writing assignments. Text book required. Laboratory fee due at time of registration. May be repeated. Prerequisite: ARTS 436, 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)

Advanced Photography focuses on the development and resolution of a cohesive body of work for use in online and print portfolios. May be repeated for credit. Prerequisite: ARTS 310 or consent of Photography Director or Department chair.

ARTS 458 ADVANCED MEDIA ARTS (3)

Advanced Media Arts is a studio course that introduces concepts and techniques of contemporary extended photographic practice, including basic video, installation and experimental art techniques as well as cross-disciplinary possibilities and contextual issues in the presentation of art works. May be repeated for credit. Prerequisite: ARTS 310 or consent of Photography Director or Department Chair.

ARTS 465 B.F.A. 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 B.F.A. 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. Laboratory fee payable at registration. Prerequisite: ARTS 382.

ARTS 491 VISITING ARTISTS' LECTURE SERIES (1)

The Visiting Artist Lecture Series is a Credit / No Credit course, which brings prominent contemporary artists to Sonoma State University to present their creative and scholarly work on a weekly basis. Class discussions will occur on weeks a speaker is not scheduled. Attendance to all lectures is mandatory and a paper is required at the end of the semester to receive course credit. Satisfies GE, category C1 (Fine Arts). This course may be repeated for credit but only 1 unit of C1 credit will be awarded.

ARTS 492 B.A. 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. May be repeated for credit.

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. 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. Course may be repeated for credit.

ARTS 595 SPECIAL STUDIES (1-4)

Prerequisites: graduate standing and consent of instructor.

Astronomy (ASTR)

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, Area B1 or B3 (Physical Sciences).

ASTR 231 INTRODUCTION TO 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; and techniques in imaging, photometry, and spectroscopy. Satisfies GE, Area B1 or B3 (Physical Sciences) and GE laboratory requirements. Prerequisite: previous or concurrent enrollment in ASTR 100.

ASTR 303 LIFE IN THE UNIVERSE (3)

Lecture, 3 hours. The course is an appraisal of the possibilities and prospects for life in the universe and travel beyond our Solar System. Topics to be covered include: the nature of life, habitability of Earth and other worlds within our Solar System, detection of planets beyond our Solar System, the search for life beyond Earth, and space travel. This course emphasizes the scientific method, especially the development of scientific theories founded in observational and experimental evidence. 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; and the study of the origin and fate of the Universe, including the search to understand dark matter and dark energy. Satisfies GE, Area 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 Area 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 ADVANCED 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 electromagnetic spectrum. Statistical treatment of data and error analysis. Prerequisites: ASTR 231, or PHYS 214 or PHYS 210B, 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. Course may be repeated for credit.

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. May be repeated for credit.

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)

BIOL 110 BIOLOGICAL INQUIRY (4)

Lecture, 3 hours; laboratory, 3 hours. A factual and conceptual exploration of the living world through presentation, student inquiry, and laboratory exercises. Topics include the basis of life; organization of living systems, from molecules to ecosystems, and their interactions; and genetics, evolution, and ecology. Satisfies GE, Area B2 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, Area B2. Not applicable to the Biology major.

BIOL 130 INTRODUCTORY CELL BIOLOGY AND GENETICS (4)

Lecture, 3 hours; laboratory 3 hours. One of two courses in the lower-division series required of biology majors. Provides an introduction to structure, molecular processes and physiology of cells, as well as mechanisms of inheritance and evolution. Satisfies GE, category B2 and GE lab requirement. Concurrent enrollment in CHEM 115A is recommended.

BIOL 131 BIOLOGICAL DIVERSITY AND ECOLOGY (4)

Lecture, 3 hours; laboratory 3 hours. One of two courses in the lower-division series required for biology majors. Introduces the extraordinary diversity of life, evolutionary relationships between groups of organisms, and principles of ecology. Satisfies GE category B2 and GE lab requirement. Completion of BIOL 130 is 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, Area B3 and the GE laboratory requirement. Prerequisites: BIOL 110 or BIOL 115 or BIOL 130 and 131.

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 Area B3 and the GE laboratory requirement. Prerequisites: BIOL 110 or BIOL 115 or BIOL 130 and 131 and CHEM 115A/B or CHEM 125A/B or CHEM 110 or CHEM 105 required.

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 or BIOL 130 and 131, and CHEM 115AB or CHEM 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 130 and 131, 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 Area B3. Prerequisites: BIOL 110, 115, or 130 and 131.

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 Area B3. Prerequisites: BIOL 110 or BIOL 115, or BIOL 130 and 131.

BIOL 311 SEXUALLY TRANSMITTED DISEASES (3)

Lecture, 3 hours. Biological, environmental, societal, and psychosocial aspects of sexually transmitted diseases. Satisfies GE Area B3. Prerequisites: BIOL 110 or BIOL 115, or BIOL 130 and 131.

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. Prerequisites: BIOL 110 or BIOL 115, or BIOL 130 and 131.

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 Area B3 and GE laboratory requirement. Prerequisites: BIOL 110 or BIOL 115, or BIOL 130 and 131.

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. Prerequisites: BIOL 110 or BIOL 115, or BIOL 130 and 131.

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 Area E. Prerequisites: BIOL 110, 115 or 130 and 131 required.

BIOL 320 ECOLOGY AND EVOLUTION - AN INTEGRATED APPROACH (4)

Lecture, 3 hours; discussion, 1 hour. An integrated overview of ecological and evolutionary processes focusing on the origins and functioning of biodiversity from genes to ecosystems. Discussions complement lectures with quantitative and written exercises to strengthen knowledge and understanding. One of a two-semester sequence satisfying the upper division core in the Biology major. Prerequisites: BIOL 130 and 131.

BIOL 321 MOLECULAR BIOLOGY, CELL BIOLOGY & PHYSIOLOGY (4)

Lecture, 3 hours; Discussion, 1 hour. An integrated overview of the key principles of molecular biology, cell biology and organismal physiology with an emphasis on regulatory mechanisms. Discussions complement lectures with quantitative and written exercises to strengthen knowledge and understanding of concepts covered in lecture. Second of a two-semester sequence satisfying the upper division core in the Biology major. Prerequisites: All majors except BIOCHEM: BIOL 130 and 131, MATH 161 or 165, CHEM 115A or CHEM 125A and completion or concurrent enrollment in CHEM 115B or CHEM 125B. BIOCHEM majors: BIOL 130, MATH 161 or 165, CHEM 115A or CHEM 125A and completion or concurrent enrollment in CHEM 115B or CHEM 125B.

BIOL 322 INVERTEBRATE BIOLOGY (4)

Lecture, 3 hours; laboratory and field, 3 hours. Exploration of the systematics, functional morphology, behavior, and ecology of invertebrates. Prerequisites: BIOL 130 and 131 required.

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 130 and 131.

BIOL 324 BIOLOGY OF MARINE MAMMALS (3)

Introduction to the biology of marine mammals, emphasizing evolutionary history, physiology, behavior, ecology, and conservation, with a focus on various factors that influence foraging and reproductive strategies, as well as on the evolution of social systems. Prerequisites: completion of BIOL 130 and 131.

BIOL 325 MOLECULAR AND CELLULAR LAB TECHNIQUES (1)

Laboratory 3 hours. This lab-centered course will focus on teaching fundamental hands-on skills used in all areas of molecular and cellular lab work. In addition to practical lab skills, emphasis will be placed on quantitative aspects of lab work as well as data interpretation and scientific writing. Completion of CHEM115A and completion or concurrent enrollment in CHEM115B and BIOL 321 or consent of instructor.

BIOL 326 DINOSAURS AND MESOZOIC VERTEBRATES (3)

Lecture, 3 hours. The course will examine the rise and fall of the dinosaurs, arguably the most successful terrestrial vertebrates in the history of Earth. We will discuss their evolutionary history and place among the vertebrates, as well as look at the other animals and plants that they shared the Mesozoic world with. Prerequisites: BIOL 130 and 131.

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 130 and 131; requires consent of instructor.

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. Prerequisite: BIOL 320.

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 130 and 131 required.

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 130 and 131.

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. Prerequisite: BIOL 130 and 131.

BIOL 332 MARINE BIOLOGY (3)

Lecture, 3 hours. The biology of marine life is examined from an integrated and functional perspective. Near shore, open ocean, and deep sea environments will be covered. Topics include factors that affect marine ecosystems, the relationship between physical processes and biological communities, and the physiology and behavior of marine organisms. Prerequisites: BIOL 130 and 131.

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 320 and Math 165 or ENSP 322 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 320 and MATH 165.

BIOL 337 BEHAVIORAL ECOLOGY (3)

Lecture, 3 hours; laboratory and field, 3 hours. Examines the evolution and function of the behavior of animals. Explores topics such as social behavior, mating systems, reproductive strategies, foraging, and communication with emphasis on techniques for formulating and testing hypotheses. Prerequisite: BIOL 320.

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 130 and 131 and CHEM 115AB, or consent of instructor.

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 321 and 325 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 320.

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 321, 325 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 321, 325 and CHEM 335A.

BIOL 346 INTRODUCTION TO BIOINFORMATICS (4)

3 Lecture, 2 hours; laboratory, 6 hours. Principles and techniques of accessing biomolecular 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. Prerequisites: BIOL 321 and 325.

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. Prerequisites: BIOL 320 and 321.

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. Prerequisites: BIOL 321 and 325.

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 mechanisms. Prerequisites: All majors except BIOCHEM: BIOL 320 and 321. BIOCHEM majors: BIOL 321

BIOL 383 VIROLOGY (4)

Lecture, 3 hours; laboratory, 3 hours. The study of viruses: their characteristics, classification, genetics, and host-parasite interactions. Emphasis will be placed on the molecular mechanisms viruses use to replicate and how this can affect the host. Prerequisites: BIOL 321, 325 and CHEM 335A.

BIOL 385 CONTEMPORARY ISSUES IN BIOLOGY (3)

Lecture, 3 hours. Selected topics related to the quality of life and the search for perspectives on the future. Satisfies GE Area B3 (Specific Emphasis in Natural Sciences). Prerequisites: BIOL 110, 115, or BIOL 130 and 131.

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. May be repeated for credit. All majors and graduate students are encouraged to enroll each semester, although no more than 2 units are applicable to the Biology major. Cr/NC grading.

BIOL 393 INDEPENDENT STUDY IN BIOLOGY (1-3)

Opportunity for independent research or special projects under the supervision of a Biology faculty member, for developing competency in biological research methods. May be repeated for up to a total of 4 units. Prerequisite: approved petition to enroll.

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. Can be taken in the Cr/NC grading mode only. May be repeated for up to a total of 4 units. 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 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 mechanisms along with a conceptual framework for understanding how development occurs. Prerequisites: BIOL 321, 325 and CHEM 335A.

BIOL 480 IMMUNOLOGY (4)

Lecture, 3 hours; laboratory, 3 hours. The cellular and molecular basis of the immune response; topics include innate and adaptive immunity, hypersensitivity, autoimmunity, and cancer immunology. Prerequisites: BIOL 342 or BIOL 344 or BIOL 383 or BIOL 472 and CHEM 335A.

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 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 320 and MATH 165.

BIOL 494 INDEPENDENT RESEARCH (1-3)

Directed study, under the guidance of a Biology faculty member, to design and conduct a research project in biology, including readings in the primary literature and application of information from relevant upper-division course work. Results must be given in a written report or presented in a public forum. May be repeated for up to a total of 4 units. Prerequisites: senior-level standing in the major with a cumulative GPA of 2.5, 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: majors or minors in Biology, upper-division standing with a cumulative GPA of 3.0, and approved petition to enroll. May be repeated for credit.

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 496A HONORS THESIS I (1-2)

Experimental or observational research for the B.S. degree conducted under the supervision of one or more of the biology faculty members. Prerequisites: senior-standing in the major with a minimum GPA of 3.0 and an approved application.

BIOL 496B HONORS THESIS II (2-3)

Completion of research for the B.S. degree conducted under the supervision of one or more biology faculty members. A research paper summarizing the results is required. Prerequisites: senior-standing in the major and completion of BIOL 496A.

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. Prerequisites: BIOL 130 and 131 or consent of instructor.

BIOL 498 BIOLOGY PRACTICUM (1-4)

Application of previously studied theory through supervised instructional work experience in biology courses. Intended for professional growth and lifelong growth for undergraduates. Enrollees are required to write an evaluation of their course experience. Can be taken in Cr/NC grading mode only. 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 7 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 333.

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 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, and cell-cycle dynamics and macromolecular regulation of cell division. Prerequisites: BIOL 344.

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 grading 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 M.S. degree. Cr/NC grading 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. Prerequisites: admission to classified standing and advancement to candidacy.

Business Administration (BUS)

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)

BUS 211 is an introduction to business statistics in practice. The course focuses on application of statistical methods, interpretation of statistical data, making statistical inferences, and how to use statistical data to aid in decision making or problem solving. Upon successful completion of the course, students would have gained an understanding of a statistician's role and skills in formulating coherent questions, gathering data pertinent to those questions, and addressing those questions using statistical procedures. Prerequisite: Satisfaction of ELM requirement. Fulfills GE Area B4.

BUS 219 E/U COMPUTING TOOLS FOR BUSINESS (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.

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. Prerequisites: none.

BUS 290 SPONSORED CORPORATE TRAINING (2)

BUS 290 is designed for a situation in which a corporation will accept a volunteer into their unpaid "internship" program only if the student is enrolled at a university in conjunction with the corporate experience. Programs offered do not meet department standards for internships, and do not qualify for 499 credit. BUS 290 may be used as free elective units only.

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. May be repeated for credit up to 7 times for a total of 16 units.

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 MANAGEMENT (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. Prerequisite: 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 INFORMATION 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. Prerequisites: computer competency, 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 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.

BUS 362 SERVICES MARKETING (4)

This course is designed to acquaint the student with the principles of service marketing and their application in a variety of service sectors ranging from banking to hospital services. Services marketing theory and principles will be applied to a firm's strategic marketing planning and the development of its service operation process within the service industry. Specifically, the course encompasses a) a developing competitive service model, b) managing the customer interface, and c) implementing sustainable service marketing strategies. Course Prerequisites: BUS 360 and Junior Standing required.

BUS 364 SPORTS MARKETING (4)

This course examines the integration of product, pricing, promotion, distribution, sales, sponsorship, advertising and brand in the marketing and management of sporting teams/leagues/events and sporting goods. Also considers the use of sports by non-sports businesses to reach their target markets. Prerequisite: BUS 360.

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 TO 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.

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, and 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. May be repeated up to 3 times for a total of 8 units.

BUS 385A SPECIAL TOPICS IN ACCOUNTING (3-4)

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

BUS 385F SPECIAL TOPICS IN FINANCE (3-4)

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

BUS 385MG SPECIAL TOPICS IN MANAGEMENT (3-4)

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

BUS 385MK SPECIAL TOPICS IN MARKETING (3-4)

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

BUS 385W SPECIAL TOPICS IN WINE (3-4)

This course provides for the teaching of special topics in business administration, wine. 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, and 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, the 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 (3-4)

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, and 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. May be repeated 3 times for credit for a total of 16 units.

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. May be repeated 3 times for credit for a total of 16 units.

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. May be repeated 3 times for credit for a total of 16 units.

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. May be repeated 3 times for credit for a total of 16 units.

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. May be repeated 3 times for credit for a total of 16 units.

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. May be repeated 3 times for credit for a total of 16 units.

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, BUS 330B, and BUS 334 or BUS 319.

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.

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 nonprofit versus 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. Prerequisite: 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; and 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 360 and junior-level standing.

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.

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. Prerequisites: BUS 305W, BUS 360, and junior-level 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 CASE STUDIES IN FINANCE (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 370.

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 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. Prerequisite: 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, 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, and application for award of degree.

BUS 493 ADVANCED TOPICS IN PROFESSIONAL SALES (2)

BUS 493 offers students hands-on experiences in all aspects of the sales process, including prospecting, face-to-face or phone meetings with stakeholders, information gathering, and formal sales presentations. Students will practice persuasive communication and effective sales strategies that create valuable and viable solutions for organizations seeking products/services. Prerequisite: BUS 360.

BUS 495 SPECIAL STUDIES (1-4)

Student-designed and instructor-guided projects, to be arranged individually. 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. May be repeated once for credit.

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. May be repeated twice for a total of 12 units.

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 B.S. 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 B.S. 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 B.S. 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 B.S. 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 B.S. 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 B.S. 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 (2-3)

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 B.A. or B.S. degree.

BUS 504 FOUNDATIONS OF ORGANIZATIONAL BEHAVIOR (2-3)

BUS 504 is an accelerated version of BUS 344 that is intended to prepare students for M.B.A. level coursework. The course examines the roles of individuals and of groups in organizations. 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 emotions and stress. At the group level, topics include group formation, development, structure, leadership, and dynamics, as well as the processes of communication, decision-making, power, and conflict. Organizational level characteristics such as structure, culture, and change management are also addressed. Prerequisite: a B.A. or B.S. degree.

BUS 506 FOUNDATIONS OF MARKETING (2-3)

BUS 506 is an abbreviated version of BUS 360 that is intended to prepare students for M.B.A. level coursework. The course provides the terminology and concepts of marketing including segmentation, product development, pricing, promotion, and distribution. Prerequisite: a B.A. or B.S. degree.

BUS 507 FOUNDATIONS OF MANAGERIAL FINANCE (2-3)

BUS 507 is an abbreviated version of BUS 370 that is intended to prepare students for the M.B.A. level course BUS 570 Seminar in Managerial Finance. It provides an introduction to the conceptual and analytical framework guiding financial decision-making within the business firm. Emphasis is placed on time value of money and discounted cash flow calculations, valuation of stocks and bonds, the evaluation of investment opportunities available to the firm, the essentials of the risk return trade-off, and estimation of the firm's cost of capital. Prerequisite: a B.A. or B.S. degree.

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 509 eMBA_{rk} (1-2)

This course is required for all incoming MBA students as orientation for masters level studies. Students will gain overview knowledge of case study approaches to learning. A study of each student's communication and learning profile will allow them to better understand how to communicate most effectively with fellow cohorts.

BUS 510 Dis-eMBA_{rk} (2)

This course is the final MBA experience that integrates demonstrations of student learning, career development activities, and a program debrief. Students will assemble a representative portfolio of course projects and complete a final comprehensive assignment designed to assess their newly acquired skills. Students will also develop a career plan and provide feedback about the MBA program via surveys and focus groups. Prerequisites: completion of all MBA program core, theme area, and elective requirements.

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 516E OPERATIONS AND SUPPLY CHAIN STRATEGIES (1-3)

This course explores major decision areas involved in managing manufacturing and service organization operations. Topics include process selection and design, planning and control systems, quality management, inventory management and control, independent demand management, supply chain management, operations strategies, and developing world-class operations. Prerequisite: admission to the E.M.B.A. Program.

BUS 519 MANAGEMENT INFORMATION SYSTEMS (3)

Study of the 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 519E INFORMATION AS CAPITAL (1-3)

The course covers major challenges that organizations confront while managing key technological resources as well as implementing technological innovations. The course examines critical links between an organization's business, cultural, and information technology (IT) strategies. This course provides current and future senior executives with the insights and frameworks necessary to make strategic decisions about information technology. The integration of digital and social media strategies into marketing and IT is also explored. Prerequisite: Admission to the E.M.B.A. Program.

BUS 525WA WINE BUSINESS EXPERIENCE A (1-3)

This course provides an opportunity to gain a winery general manager's perspective from vine to package. Through winery field trips during harvest and crush, students will get an executive's view of vineyard operations, winemaking and wine maturation. Then, students will develop a brand strategy to execute in BUS 525W B. Prerequisites: the four core M.B.A. courses: BUS 540, BUS 570, BUS 580, and BUS 535.

BUS 525WB WINE BUSINESS EXPERIENCE B (1-3)

This course expands the elective courses available to M.B.A.-Wine Business students and allows graduate students a for-credit opportunity to participate in an experiential learning activity in wine business packaging, marketing, and selling a brand, including gaining event planning and wine industry software sales technology experience. Prerequisites: BUS 540, BUS 570, BUS 580, BUS 535 and BUS 525WA.

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 530E FINANCIAL STATEMENT ANALYSIS (1-3)

This course provides a critical analysis of the role of regulation in the measurement and reporting of the results of economic activities to enable a more effective and efficient use of financial information for decision-making purposes. This course explains the "management assertions" embodied in the financial statements and its relationship with an independent audit of financial information. There is also discussion of strategic cost concepts and ethics in recordkeeping; methodology of short and long-term decision analysis; planning and control of organizational activities, transfer pricing methods, and performance evaluation and their related behavioral implications; and critical analysis of long term decisions. Prerequisite: admission to the E.M.B.A. Program.

BUS 535 COST ANALYSIS AND CONTROL (3)

The course focuses on concepts and managerial uses of financial information with a strong emphasis on management decision-making and the strategic effects of decisions, ethics, and new management accounting trends to prepare students for the challenges of today's workplace.

BUS 540 MANAGING HUMAN CAPITAL (3)

Blending theory and application, this course is aimed at understanding the development of human capital. It focuses on the strategic development of talent in the context of talent leadership. It views the arena of talent management as a critical means to achieve competitive advantage in the context of business strategy.

BUS 540E TALENT MANAGEMENT (1-3)

This course examines human resources with an emphasis on the role of the top executives and leadership to establish an effective HR system. Specific topics include: strategic human resources in a globally competitive environment; financial implications of HR; strategic staffing and interviewing; training and development; creating a motivational work environment for employees; designing an effective compensation and benefits systems; safety and environmental issues in the workplace; and a review of ethical, legal and international HR issues. Prerequisite: admission to the E.M.B.A. Program.

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 M.B.A. Concentration.

BUS 546E GLOBAL BUSINESS OPERATIONS (1-3)

A course that investigates strategic opportunities and challenges in a global marketplace, specifically the macroeconomic and microeconomic forces that face businesses as the world has flattened. This course investigates how fiscal, monetary, and trade policies affect any business, and may focus on a specific country or trade area. Case studies provide comparisons and contrasts for different business and socioeconomic environments in today's global economy. Prerequisite: admission to the E.M.B.A. Program.

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 INNOVATION (3)

This course provides a combination of skill building and theoretical foundation in leadership and innovation. Topic areas include: 1) self-assessment and review of leadership theory, 2) vision, strategy formulation, and planning, 3) interpersonal leadership skills including motivation, performance management, and teamwork, and 4) technical leadership competencies in the areas of innovation, creativity, change and stress management, and decision-making.

BUS 552E LEADERSHIP INTELLIGENCE (1-3)

Leadership is about making a difference for the organizations in which we work, and for the communities in which we work and live. The focus is on building a core of three critical skill sets: a foundation of financial, operational, and strategic business acumen; the emotional intelligence to effectively engage people; and the execution discipline to deliver results and get things done. This course is connected to BUS 554E and includes the orientation weekend and team-building experiences. Prerequisite: admission to the E.M.B.A. Program

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 554E LEADING SUSTAINABLE ENTERPRISES (1-3)

When business results are measured by long-term profitability, the creation of vibrant communities, and the sustainable use of natural resources, how do executive leaders achieve success? Leading Sustainable Enterprises is an intensive leadership development experience which provides executives with the tools and strategies necessary for delivering results in a complex multi-stakeholder business environment. Course topics encompass leading for results, business intelligence, leadership intelligence, execution competence, and sustainability strategies. This course includes an offsite leadership development program and the completion of a sustainability plan for a business. Prerequisite: admission to the E.M.B.A. Program.

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 M.B.A. Concentration.

BUS 559 SEMINAR IN ADVANCED MANAGEMENT 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 559E LEADERSHIP NORTH BAY (1-3)

This course gives students an opportunity to review case studies of local firms and analyze what unique challenges exist for businesses in the North Bay. Discussion of local government, labor force, and other business environment factors adds to the analysis. Further, economic trends in the North Bay are discussed in the context of what business opportunities exist within those trends. Prerequisite: admission to the E.M.B.A. Program.

BUS 559W SEMINAR IN ADVANCED WINE BUSINESS TOPICS (3)

Graduate study of a current or emerging topic of interest in Wine Business. 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 560E STRATEGIC MARKETING (1-3)

Study of the current marketing environment, analysis of cutting-edge marketing programs, and the development of strategic marketing plans. Careful consideration of the conceptual background of marketing including trends and emerging developments. The integration of digital and social media into marketing strategies is also discussed. Prerequisite: admission to the E.M.B.A. Program.

BUS 563 STRATEGIC BRANDING (3)

This course offers a solid, proven theoretical foundation with practical insights to assist managers in their day-to-day and long-term brand decisions. Specifically, a number of key concepts related to brand management, such as brand equity and brand positioning, are incorporated with a series of case studies to optimize students' learning. Prerequisites: completion of the four core M.B.A. courses: BUS 540, BUS 570, BUS 535, and BUS 580.

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 M.B.A. 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 570E FINANCIAL MARKETS AND BUSINESS STRATEGY (1-3)

This course examines the relationship between corporate finance theory and business strategy employed by corporate executives. The intent of the course is to improve executive decision-making by applying modern corporate finance theory to current business issues. Topics to be covered include time value of money analysis, capital budgeting techniques such as net present value and internal rate of return, cost of capital, capital structure, market efficiency, and international finance. The course will blend theory and practice by employing a combination of lecture and discussion of corporate finance theory with case studies to emphasize practical application. Prerequisite: admission to the E.M.B.A. Program.

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 580 BUSINESS INTELLIGENCE (3)

The course introduces students to methods of data-driven decision-making. This is a hands-on data intensive course where we analyze topics related to management, marketing, and finance such as pricing, promotion, branding, estimating return on investments, and forecasting. The course will make extensive use of modern data-driven analytical methods, including simple and multiple regression models.

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 581E RESEARCH FOR STRATEGIC PLANNING (ONLINE COURSE) (1-3)

This course explores the business professional's role in retaining and incorporating data into the strategic planning process. It will delve into the research options of today's business environment as well as the research process, and discuss current issues in business research, from global to ethical concerns. This class guides executives through identifying their greatest information needs and directs them how to best address their strategic questions. Prerequisite: admission to the E.M.B.A. Program.

BUS 590E LEADING CHANGE IN ORGANIZATIONS (1-3)

This course explores change management theories and practical methods to implement change within organizations. Specific topics include: overview of major change management models, building a case for change; evoking change leadership and the role of the change agent, building commitment to change, analyzing processes, designing and implementing the change plan, establishing measures, managing transitions, and developing a learning organization that embraces change. The role of leaders in implementing successful change efforts in different sized organization is a main theme of this course. Prerequisite: admission to the E.M.B.A. Program.

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. Course Prerequisites: BUS 535, 540, 570 and 580 and three theme area courses; MBA or Wine MBA students only.

BUS 591E STRATEGY IN PRACTICE (1-3)

This is a seminar requiring active contribution of participants to identify and evaluate decisions determining the long-range future of a business or nonprofit organization. Strategic management entails generating choices to be made among competing alternatives to produce a competitive advantage and earn above-average returns. Rapid technological change, mergers and acquisitions, increasing pressures for globalization, and changing local environments for organizations have heightened the urgency to ask the right questions about the future, such as: (1) Which distinctive competencies should we be developing for our businesses? (2) Where and how should we compete? (3) How do we balance among competing priorities of and communicate our strategy to our stakeholders? Prerequisite: admission to the E.M.B.A. Program.

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. Course Prerequisites: BUS 535, 540, 570, 580 and MBA students only.

BUS 592E BUSINESS PLAN (1-3)

This is primarily a field-study course in which students describe, evaluate, and recommend a well-supported strategy to the top management team and/or board of directors of an organization. Working in teams, participants will observe how strategic opportunities are identified, conceptualized, planned, financed, implemented, managed and harvested. Learning tools include field research, compilation of primary and secondary data, class dialogues, readings, sample case analyses, guest lectures from local business leaders, and a final project that involves writing a case study and analysis describing the evolution of an organization's strategy, how resources and capabilities will be acquired to implement the strategy, and how results may be monitored and controlled. The ultimate output of this course is a business plan that students may use in future business ventures. Prerequisite: admission to the E.M.B.A. Program.

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. Prerequisites: consent of faculty member under whom the individual work is to be conducted, consent of the M.B.A. director, 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. director that the work involved is clearly integral to the student's graduate studies. Cr/NC only.

BUS 597W COUNTRY INTENSIVE WINE BUSINESS ANALYSIS (3)

This course provides in-depth analyses of a foreign country's wine industry. Topics may include general business and economic issues as well as wine-specific issues focusing on production, sales, and marketing (within country and for export); human resource management; environmental concerns; and regulations. This course includes a required international field trip.

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 M.B.A. Coordinator before the student registers for this course.

Chemistry (CHEM)

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 related to everyday life. The laboratory will consist of experiments covering chemical principles and phenomena discussed in the lecture. Satisfies GE Area B1 (Physical Sciences) and the GE laboratory requirement.

CHEM 105 ELEMENTS OF GENERAL, ORGANIC, AND BIOCHEMISTRY (5)

Lecture, 4 hours; laboratory, 3 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, Area B1 (Physical Sciences) and the GE laboratory requirement. Fall only.

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, and 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. Satisfies GE Area B1. Fall only.

CHEM 115A GENERAL CHEMISTRY (5)

Lecture, 3 hours; discussion, 1 hour; 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. Prerequisite: GE math placement. Satisfies GE Area B1 (Physical Sciences), and laboratory requirements.

CHEM 115B GENERAL CHEMISTRY (5)

Lecture, 3 hours; discussion, 1 hour; laboratory, 3 hours. Continuation of CHEM 115A. Prerequisite: CHEM 115A. Satisfies GE Area B1 (Physical Sciences), and laboratory requirements.

CHEM 120A THINKING LIKE A SCIENTIST (2)

First course of a two-course series. Topics include logic, critical thinking, the scientific method, data analysis, statistics, ethics, science and society, problem solving, and college transition elements. Students must be of Freshman status, GE math eligible and be concurrently enrolled in CHEM 125A and either Math 160, Math 161, or Math 161X. Upon completion of CHEM 120B in the spring, the course will satisfy the category A3 GE requirement.

CHEM 120B THINKING LIKE A SCIENTIST (2)

Second course of a two course series. Topics include logic, critical thinking, the scientific method, data analysis, statistics, ethics, science and society, problem solving, and college transition elements. Students should be concurrently enrolled in CHEM 125B. Upon completion of CHEM 120B, the course will satisfy the category A3 GE requirement. Prerequisite: CHEM120A.

CHEM 125A QUANTITATIVE GENERAL CHEMISTRY (5)

Lecture, 3 hours; discussion 1 hour; laboratory 3 hours (5 units). This one-year analytical general chemistry course is designed for freshmen Chemistry majors, Biochemistry majors, or others interested in chemical fields who have taken High School Chemistry or equivalent. This first semester course (CHEM 125A) will focus on: statistics, atomic structure, stoichiometry, gas laws, redox reactions, equilibrium, and acid/base reactions. Prerequisites: high school chemistry or equivalent and GE math placement. Taken concurrently with CHEM 120A.

CHEM 125B QUANTITATIVE 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 chemical literature, chromatography, spectroscopy, biological chemistry, thermodynamics, electrochemistry, quantum mechanics, bonding, and kinetics. 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: CHEM 125A and concurrent enrollment in CHEM 120B.

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 275 INSTRUMENTAL ANALYSIS (2)

This course focuses on the theory behind commonly used chemistry instruments. Lecture will focus on analysis of spectroscopic data (molecular transitions), an overview of instrumental hardware, and principles of chromatography. Topics include basic electronics, statistics, optics, signal to noise detectors, IR, optical, NMR and fluorescence spectroscopy, mass spectrometry, atomic absorption, and chromatography. Prerequisite: CHEM 335B.

CHEM 310A FUNDAMENTALS OF PHYSICAL CHEMISTRY (3)

Lecture, 3 hours. Development and applications of the concepts of thermodynamics, equilibrium, and kinetics. Prerequisites: CHEM 115B or CHEM 125B; MATH 211; PHYS 210 B or PHYS 214.

CHEM 310B FUNDAMENTALS OF PHYSICAL CHEMISTRY (3)

Lecture, 3 hours. Introduction to the concepts of quantum mechanics and its application to chemical bonding and spectroscopy. Prerequisites: CHEM 115B or CHEM 125B; MATH 211; PHYS 210 B or PHYS 214.

CHEM 315 INTRODUCTION TO RESEARCH METHODS IN CHEMISTRY (1)

Chemistry 315 is designed for Chemistry majors but may be taken by others. Students will learn about research in Chemistry at SSU and then will choose a research project with a faculty mentor. This course will focus on preparation of a proposal to be performed in the subsequent semester. Topics such as scientific ethics, literature, and writing will also be covered. Prerequisite: CHEM 335B.

CHEM 316 RESEARCH METHODS IN CHEMISTRY (2)

Chemistry 316 is the second part of a year-long course designed for Chemistry majors. Students will execute the research proposal developed in CHEM 315. Research will be done under the mentorship of faculty. Students will meet weekly to discuss research progress. Students will conclude the semester with a research manuscript. Prerequisite: CHEM 315.

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 mechanisms of inorganic and organometallic compounds including electron transfer. Prerequisite: CHEM 310B and CHEM 401, or concurrent enrollment.

CHEM 335A ORGANIC CHEMISTRY (3)

Lecture, 3 hours. A study of the fundamental principles of organic chemistry including bonding, electrophilicity, nucleophilicity, and molecular shapes and geometry for organic compounds. Applies these concepts to the study of the properties, syntheses, and reactions of major classes of organic compounds. A special emphasis is given to reaction mechanisms. Prerequisite: CHEM 115B or CHEM 125A (with department consent), or consent of instructor.

CHEM 335B ORGANIC CHEMISTRY (3)

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

CHEM 336A ORGANIC CHEMISTRY LAB I (2)

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

CHEM 336B ORGANIC CHEMISTRY LAB II (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 or corequisite of CHEM 335B required.

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: consent of instructor.

CHEM 401 SENIOR INTEGRATED LAB (3)

This course focuses on making connections between the sub-disciplines of chemistry by performing experiments that cross over between these sub-disciplines in this capstone course. Students will perform experiments independently. Students will learn to properly write up their results in a format similar to published papers. This course is for graduating seniors and is the capstone for B.A. Chemistry majors. Prerequisites: CHEM 255, CHEM 275 and CHEM310A. CHEM 275 and CHEM 310A may also be taken concurrently.

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 the B.S. chemistry degree. Topics will include air-sensitive syntheses, standard Schlenk line techniques, characterization through IR, optical and NMR spectroscopy, mass spectrometry, and electrochemistry. This course is for graduating seniors and is the capstone for BS Chemistry majors. Prerequisite: CHEM 401.

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. This course is for graduating seniors and is the capstone for B.S. Biochemistry majors. Offered in spring only. Prerequisites: CHEM 445 or 446 (may be concurrent), CHEM 255, and a foundation in spectroscopy; kinetics strongly recommended. Fall Only.

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 130; 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. May be repeated; does not count towards the major.

CHEM 494 UNDERGRADUATE RESEARCH (1-6)

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. Prerequisite: consent of instructor.

CHEM 495 SPECIAL STUDIES (1-3)

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

CHEM 496 SELECTED TOPICS IN CHEMISTRY (1-6)

A study of an advanced topic in chemistry. May be repeated for credit with new subject matter. Prerequisites: CHEM 335A and 335B; may vary by 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. Prerequisite or corequisite: CHEM 401 required, 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)

CALS 165A HUMANITIES LEARNING COMMUNITY (4)

CALS 165 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas along with meeting Ethnic Studies requirements.

CALS 165B HUMANITIES LEARNING COMMUNITY (4)

CALS 165 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas along with meeting Ethnic Studies requirements.

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 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 the Ethnic Studies requirement in GE Area D1 (Individual and Society).

CALS 220 LATINA/O ARTS AND HUMANITIES (4)

This course considers how individuals and communities define and are defined by their cultural practices by focusing on the ways these dynamics play out in Latina/o communities. It surveys Latina/o contributions to literature, drama, theater, cinema, mass media, popular and fine art, music, and dance and considers how these contributions reflect and challenge the nature and meaning of race and ethnicity in the United States. This course satisfies the C3 and Ethnic Studies GE requirements.

CALS 225 SPANISH FOR BILINGUALS (4)

This course is designed to systematically develop a confidence in native speakers' ability to write and communicate effectively in the Spanish language. The class will be conducted entirely in Spanish. Prerequisite: native fluency in Spanish. Satisfies GE Area C3 (Comparative Perspectives and/or Foreign Languages). This course does not satisfy the GE Ethnic Studies requirement.

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 273 LATINOS AND PERFORMANCE: CRITICAL AND CREATIVE READINGS (4)

This course explores the relationship between identity and performance, reading and rendition, the interaction between the skills of close reading, embodied reading, and possible productions of these readings on the page, stage or screen. This course is part of the University's Second Year Research and Creative Experience (SYRCE) and its theme will vary from semester to semester. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: completion of GE Category A2 (Engl 101 or ENGL 100B) required.

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 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 (4)

This course is designed for students who have studied little or no Latin American literature previously, and are interested in exploring the rich and diverse make-up of a people of both indigenous and Hispanic background, to understand how it is a part of their everyday lives. Students will develop an understanding of regional areas through the readings, and study the manner in which writers from Latin America weave struggles related to ethnicity, cultural traditions, and historical events into their creative works with a focus on important figures of Latin American narrative. Satisfies upper-division GE Area C2 (Literatures, Philosophies, and Values) and the Ethnic Studies requirement.

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 Area 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. We will explore the relationship between dominant racial formations and cultural production.

CALS 352 CHICANO/LATINO PHILOSOPHY (4)

This course addresses the development of Chicano/a and Latina/o thought from a materialist perspective. We will endeavor to contextualize the rise of different attitudes, definitions and worldviews concerning Chicano/Latino identity and politics within the specific historical conditions in which they developed. Satisfies Ethnic Studies and upper-division GE Area C2 (Literatures, Philosophies, 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 with Chicano/Latino musical traditions and an understanding of their significance within a multicultural society. Satisfies Ethnic Studies and upper-division GE Area C1 (Fine Arts).

CALS 374 LATINO LITERATURE (4)

A course designed to identify, analyze, and appreciate current literary themes and forms in works focusing on the experiences of Latinas/os in the United States. The course includes analyses of distinct ethnic, national, racial, regional, and gendered voices through the study of novels, short stories, essays, poetry, and plays. Satisfies upper-division GE Area C2 (Literatures, Philosophies, and Values) and the Ethnic Studies requirement.

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 Area C1 (Fine Arts).

CALS 395 COMMUNITY INVOLVEMENT PROGRAM (CIP) (1-4)

Provides students with practical experience in school classrooms, various ethnic community organizations, and 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. May be repeated for credit.

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. May be repeated for credit.

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. May be repeated once for credit with a different topic.

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 Area 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)

A seminar that examines the role language plays in structuring the social interactions of Latino populations. The class includes an overview of multiple varieties of Spanish and English, and explores issues such as language maintenance, policy planning, and bilingual education. Satisfies GE Area C3 (Comparative Perspectives) and the Ethnic Studies requirement.

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 the Ethnic Studies requirement in GE Area 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 451 LATINA/O HUMANISMS (4)

A comparative analysis of the nature and meaning of race and ethnicities in the United States from its origins in Latin America to its cultural manifestations and social concepts. Discussion and study will be focused from interdisciplinary perspectives. Satisfies GE Area C3 (Comparative Perspectives) and Ethnic Studies categories. 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. Note: restricted to upper-division students. Prerequisite: CALS 458.

CALS 458 CALS RESEARCH AND METHODOLOGY (4)

This course introduces students to advanced research theories and methodologies. Students will develop and refine their research and information literacy competencies as they complete a semester-long original research project. This course can be substituted for AMCS 480 Research and Methodology.

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. Prerequisites: 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 Area 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. May be repeated for credit.

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. Prerequisites: senior-level standing and completion of most CALS core classes. This course may be repeated once for credit.

CALS 595 SPECIAL STUDIES (1-4)

Directed study for graduate students. Prerequisite: completion and approval of a special studies form.

Communication Studies (COMS)

COMS 160A HUMANITIES LEARNING COMMUNITY (4)

COMS 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

COMS 160B HUMANITIES LEARNING COMMUNITY (4)

COMS 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

COMS 162A HUMANITIES LEARNING COMMUNITY MEDIA LITERACY (4)

COMS 162 A/B is a year long course, which, features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE categories.

COMS 162B HUMANITIES LEARNING COMMUNITY MEDIA LITERACY (4)

COMS 162 A/B is a year long course, which, features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE categories.

COMS 200 PRINCIPLES OF MEDIA 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 VIDEO PRODUCTION (4)

A course for beginning video students. Assignments include: creation of 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 WEB AND PRINT JOURNALISM (4)

Introduction to a wide range of writing styles and formats, from hard news to features. Students learn to write for newspapers, magazines, television, radio, and the internet.

COMS 240 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 RADIO AND AUDIO PRODUCTION (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 273 SYRCE: TOPICS IN COMS (4)

This course examines seminal moments in history that shaped the future of news reporting by identifying key tropes in the encoding and decoding of content. The course critiques traditional values, ethics and philosophies in order to portray the truth of the times as viewed through the lens of mediated communications. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: completion of GE Category A2 (Engl 101 or ENGL 100B) required.

COMS 275 21ST CENTURY TELEVISION AS ART (4)

This course explores the "New Golden Age" of TV that arguably began with *The Sopranos* and which may, perhaps, be considered "art." Students will weigh relevant social and technological changes, study debates over subjectivity, taste, and cultural hierarchies, and assess what might distinguish these new shows from TV of old. Non-Majors Need Dept. Approval.

COMS 301 MEDIA 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. Prerequisites: COMS 200, 202, and COMS majors with junior-level standing.

COMS 302 MEDIA ETHICS AND LAW (4)

The course will examine controversial ethical issues related to the media including sensationalism, bias, and deception. It will also cover how the media is regulated, as well as legal issues related to the First Amendment, libel, privacy, copyright, confidentiality, obscenity, the right to a fair trial, advertising law the Freedom of Information and Open Meetings Acts. Prerequisites: COMS 200, 202, and COMS majors with junior-level standing.

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. Course restricted to COMS majors.

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 HEALTH SCIENCE AND ENVIRONMENTAL JOURNALISM (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, and memos. Lecture, videos, and field trips help to critique news, public relations, advertisements, PSAs, campaigns, film, television, music, and the internet on related issues. Junior-level standing required.

COMS 324 SCRIPTWRITING FOR TV (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.

COMS 325 NEW MEDIA (4)

This course introduces students to new communication technology, its influence on society, and how to write for the new media environment. This course will focus on examining new communication technologies including the different ways in which these technologies are used, the theoretical models that are relevant to new communication technology as well as the practical applications and implications of new communication technology on communication.

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 multi-media are covered. Theories of communication are discussed as they relate to presentation styles. Junior-level 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-level 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 PUBLIC RELATIONS FIRM (4)

This is a hands-on class for students who are planning to work in the field of public relations. The class is run as a public relations firm with students working as consultants with clients to develop plans and projects for public relations campaigns. Prerequisite: Consent of Instructor Required. Open to Juniors, Seniors and Graduates only. Non major needs Dept. approval

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). 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. Prerequisites: COMS 301 and 302; 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, SOCI 300, SOCI 331, or consent of instructor. Cross-listed 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, and tutor students in classes. Consent of instructor and department contract required. May be repeated for credit.

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, to 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. May be repeated for up to 3 units of credit.

COMS 499 MEDIA INTERNSHIP (1-4)

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 and Engineering Science (CES)**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. Cross listed as MATH 430 and ES 400.

CES 430 PHOTONICS (3)

Lecture, 3 hours. Lasers, diode lasers and LED's, fiber optics, and optical radiation detectors. Prerequisites: a course in modern Physics (such as PHYS 314) and electromagnetism (such as PHYS 430). Cross-listed 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, and 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. Prerequisite: ES 230 or PHYS 314 or consent of instructor. Cross-listed as 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. Cross listed 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. Prerequisite: 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. Cross-listed as 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, and 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, and 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, ES 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, optic 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, PHYS 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). Prerequisite: 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. Multirate and multipoint-to-multipoint switching, ATM switching, signaling and call set-up, ATM switch-architectures and their performance evaluation, and multicasting techniques. VLSI implementation considerations, future directions. The course may require significant lab and/or project activity. Prerequisites: MATH 345, ES 230, ES 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 a 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, BGMF; 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. Special topics to augment regularly scheduled graduate courses in bioengineering will be presented. Prerequisite: consent of the instructor.

CES 593 LABORATORY AND TECHNOLOGY 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. Prerequisites: 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. Prerequisite: 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. Prerequisites: 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.

Computer Science (CS)

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 Area 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 Area B3. Prerequisite: GE math and English eligibility, 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 the 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 courses or consent of instructor.

CS 185 SPECIAL TOPICS IN COMPUTER SCIENCE (1-4)

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 Linux host, shells and shell commands, files and directories, Gnome desktop, jobs and processes, scripting, programming utilities (compiler, linker, debugger, make, hex dump, etc.). Prerequisites: Grade of C- or better in CS 115 and previous or concurrent enrollment in CS 215, or consent of instructor.

CS 215 PROGRAMMING II (4)

Lecture, 3 hours; laboratory, 3 hours. This course is the 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: Grade of C- or better in 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, and an introduction to graph theory. Prerequisites: Grade of C- or better in CS 115 and MATH 161 or 161X, 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: Grade of C- or better in CS 215 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 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: Grade of C- or better in CS 210, CS 215, and CS 242, or consent of instructor.

CS 330 INTRODUCTION TO GAME PROGRAMMING (3)

Lecture, 2 hours; laboratory, 2 hours. This course is an introduction to the theory and practice of video game design and programming. Video games combine, in real-time, concepts in computer graphics, human-computer interaction, networking, artificial intelligence, computer aided instruction, computer architecture, and databases. This course introduces students to a variety of game engines and frameworks and explores artificially intelligent agents. Students will work as part of a team to create a complete description document for a computer game and implement a prototype of the game. Prerequisite: Grade of C- or better in CS 315 or instructor consent.

CS 340 COMPUTER SECURITY AND MALWARE (3)

Lecture, 2 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: Grade of C- or better in 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: Grade of C- or better in 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 the sequel to CS 252 and includes the following topics: instruction set design; stages of instruction execution: data, and control path design; 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, and asynchronous circuit design. Prerequisites: Grade of C- or better in 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: Grade of C- or better in 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: Grade of C- or better in CS 315, 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, with coverage of key theories in data communication and how these theories relate to current practices and will drive future practices. Network hardware implementations of local area networks, wide area networks, telephone networks, and wireless networks are investigated. Network software implementations of switches and routers, peer-to-peer networking, and hosted applications are investigated with exercises in writing and debugging network protocols in the laboratory. Prerequisites: Grade of C- or better in 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: Grade of C- or better in CS 215 or consent of instructor.

CS 375 COMPUTER GRAPHICS (3)

Lecture, 2 hours; Laboratory, 2 hours. An introduction to computer graphics. Survey of the fundamental algorithms and methodologies, including, but not limited to, 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: Grade of C- or better in CS 215 and MATH 161 or MATH 161X, 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 IN COMPUTER SCIENCE (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 386 SELECTED TOPICS IN CS WITH LAB (3)

Lecture 2 hours, lab 3 hours. 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, and 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: Grade of C- or better in CS 315, or consent of instructor.

CS 425 PARALLEL COMPUTING (3)

Lecture, 3 hours. Overview of parallel patterns, programming models, and hardware. Topics include parallel performance analysis; types of parallelism; parallel decomposition of tasks; shared vs. distributed memory; synchronization; hands-on experience with multiple parallel programming models; and architectural support for parallelism. Prerequisites: Grade of C- or better in CS 252 and 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 including 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: Grade of C- or better in 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. Prerequisites: Grade of C- or better in CS 315 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 versus 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: Grade of C- or better in 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: Grade of C- or better in 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. Prerequisite: Grade of C- or better in CS 365, 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, nonprofit organization, or other affiliations. Prerequisites: Grade of C- or better in 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: Grade of C- or better in 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). Prerequisites: an upper-division CS course in the area of interest and consent of instructor. May be repeated for credit.

CS 496 SENIOR RESEARCH PROJECT (3)

Students, under the direction of one or more faculty members, undertake a substantial research project that is based on multiple upper-division CS courses. The result of the research is presented by the students in one of the Colloquium (CS 390) meetings. Senior-standing and approved contract are required.

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 intern, 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.

Counseling (COUN)

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. Prerequisites: participation in the Migrant Education Advisor Program (MEAP) and consent of the instructor.

COUN 501 COUNSELING THEORIES AND PROFESSIONAL ORIENTATION (4)

An orientation to professional counseling focusing on standards of practice, major counseling theories, and essential concepts in the practice of counseling including attention to concepts of resilience and recovery-based models. Advocacy, systems of care, services, support for the severely mentally ill, and collaborative treatment are addressed in both counseling and case management. Mental health principles, the history and philosophy of counseling, consultation, self-care, cultural competence, roles of professional organizations and governing bodies, and ethical standards of the discipline are presented. This course also includes focus on 1 unit of special topics toward the CA LPCC license.

COUN 502 WHOLE LIFESPAN DEVELOPMENT (4)

This course offers a developmental perspective on counseling interventions appropriately undertaken with children, adolescents, and adults. 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, and effects of domestic violence; (3) consideration of family, peer, school, and community contexts in treatment planning (i.e., integrative case formulation) with children and adolescents; (4) identifying basic intervention strategies that facilitate adaptive change in adults' lives, particularly in the context of significant transitions and life events; (5) addressing long term care and elder abuse; (6) consideration of gender, sexual orientation, and ethnicity issues; and (7) examination of changes in career, interpersonal relationships, family structure and dynamics with an emphasis on their interdependence. This course also incorporates focus on 1 unit of special topics toward the CA LPCC license. Course restricted to Counseling M.A. students only.

COUN 503 CLINICAL DIAGNOSIS AND TREATMENT PLANNING (4)

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 Diagnostic and Statistical Manual of Mental and Emotional Disorders (DSM); (3) development of appropriate treatment plans; (4) the relationship of class, gender, and ethnic background to diagnosis and treatment; (5) mental health recovery-oriented care; (6) principles of collaborative treatment; and (7) the impact of co-occurring disorders. This course also includes a focus on 1 unit of special topics toward the CA LPCC license. Course restricted to Counseling M.A. students only.

COUN 510A APPLIED COUNSELING TECHNIQUES AND ASSESSMENT (4)

This course helps students to develop necessary basic multiculturally competent assessment and counseling skills to prepare them for field based training experiences in a wide variety of settings. Students will learn interview and assessment methodologies including intake interviewing, crisis assessment, and suicide assessment. 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. This course also includes focus on 2 units of special topics toward the California LPCC license. Course restricted to Counseling M.A. students only.

COUN 510B APPLIED COUNSELING PRACTICUM AND ADVANCED TECHNIQUES (4)

This course provides students with an opportunity to continue the development of multicultural-competent counseling skills necessary for advanced field training during the 514A/B Supervised Field Experience sequence. There are different sections for CMHC (MFT & LPCC) and School Counseling (PPS) students: CMHC students see clients in a structured fashion on campus and School Counseling students work in school settings under the instructor's supervision. This course also expands on principles of counseling clients in crisis and clients who have experienced trauma. Cr/NC only. Prerequisite: COUN 510A.

COUN 511F CAREER COUNSELING: FOUNDATIONS, MEASUREMENT AND ASSESSMENT, AND ISSUES THROUGHOUT THE LIFESPAN (3)

Counseling 511F focuses on academic and career awareness and support for individuals and families throughout the lifespan, including the following objectives: (1) coverage of learning and career development theory, system support, K-12 academic and career guidance, and career information resources; (2) overview of major theoretical career models and practice guidelines; (3) study of the impact of diversity issues and counselor personal needs/values on ultimate career and educational choices; (4) exploration of interrelationships among and between work, family, and other life roles and factors; (5) development of hands-on career assessment and interviewing skills including skills for group and individual clients; (6) skills with print and computer-based career counseling materials; (7) familiarizing students with available information resources; and (8) coverage of career issues of adult development, including job maintenance, advancement, retirement, job-loss, avocation and leisure, and secondary career status.

COUN 511G ACADEMIC AND CAREER PLANNING AND COUNSELING ISSUES OF K-12 POPULATIONS (1)

COUN 511G is an introductory course in K-12 academic counseling and career development. Course content includes the foundations of learning theory, cradle to 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 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 basic group counseling skills, stages of group formation, confidentiality, trust issues, co-counseling in groups, group dynamics and structure, groupwork with families, and groupwork from a systemic perspective. 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. This course also includes focus on 1 unit of special topics toward the CA LPCC license. Prerequisite: course restricted to Counseling M.A. students only.

COUN 513 RESEARCH, EVALUATION, AND ASSESSMENT IN COUNSELING (4)

A survey of the principles of research design, program evaluation, and assessment as applied to counseling in school and community settings, with a focus on using these skills to improve individual and programmatic counseling efficacy. Students will develop an understanding of key issues in assessment, including test development, administration and scoring, test reporting and interpretation, and test evaluation and selection. In addition, students will develop an understanding of research design and how it can be utilized for data-based counseling program planning and evaluation. The course will increase students' awareness of the ethical and cultural dilemmas that are inherent in assessment, research, and evaluation. Prerequisites: Counseling M.A. students only; demonstrated competence in basic statistical analysis.

COUN 514A SCHOOL COUNSELING SUPERVISED FIELD EXPERIENCE I (4)

This seminar provides a group discussion and supervision format in conjunction with advanced field based training, in school settings. The class meetings are designed to supplement the individual and group supervision provided 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 school settings will be addressed. Integral to this experience is the exchange of feedback and support among seminar participants. This course also addresses techniques for working with clients and situations involving crisis/trauma. Prerequisites: 510A, 510B and 520; 501 is highly recommended. Evaluations are by letter grade. Course restricted to Counseling M.A. students only.

COUN 514B SCHOOL COUNSELING SUPERVISED FIELD EXPERIENCE II (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. The class meetings are designed to supplement the individual and group supervision received from 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 school settings will be addressed, along with working with clients in crisis, experiencing trauma, and how to respond as part of a crisis team. Students will complete a culminating case study project, with both oral and written components. Prerequisites: 510A, 510B, 514A, 520, and 501 is highly recommended. This is a graded course. Course restricted to Counseling M.A. students only.

COUN 515A CMHC SUPERVISED FIELD EXPERIENCE I (4)

This seminar provides a group discussion and supervision format in conjunction with advanced field based training, which may be in community counseling settings (CMHC students). The class meetings are designed to supplement the individual and group supervision provided 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. This course also addresses techniques for working with clients and situations involving crisis/trauma. Students will initiate a culminating case study project, with both oral and written components. Prerequisites: 510A, 510B, and additional coursework in the M.A. program. Course restricted to Counseling M.A. students only.

COUN 515B CMHC SUPERVISED FIELD EXPERIENCE II (4)

This seminar provides opportunities to build upon and consolidate the field based training skills addressed in COUN 515A. A group discussion and supervision format continues to provide supplemental support relative to counseling field work in community counseling settings (CMHC, MFT, and LPCC). The class meetings are designed to supplement the individual and group supervision received from 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. Significant attention is paid to working with clients and systems in crisis and experiencing trauma. Students will complete a culminating case study project, with both oral and written components. Prerequisites: 510A, 510B, 514A, and additional courses in the M.A. program. This is a graded course. Course restricted to Counseling M.A. students 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 with respect to school climate, student and family issues.

COUN 521 SEMINAR: PUPIL PERSONNEL SERVICES – CONCEPTS AND ORGANIZATION (4)

A seminar in organizing, supervising, and administering comprehensive service-based and data-driven 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 a school. Prerequisite: COUN 520.

COUN 523 WORKING WITH 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 pre-service school counselor's own family of origin and its impact on their development as a student. Attention is devoted to important issues impacting families including family structures and lifecycle; domestic violence; poverty; and the roles of families and systems in substance abuse and dependence. Each student is required to take a leadership role in a field based parent involvement activity in a school setting as part of this course. Prerequisite: COUN 510A 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 (including substance abuse). 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 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. Prerequisites: COUN 510A (Pre-practicum) and COUN 520.

COUN 527 LAW AND ETHICS FOR SCHOOL COUNSELORS (4)

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 540 COUNSELING DIVERSE COUPLES AND FAMILIES (4)

This course offers theoretical, principle, and methodological foundations for understanding diverse couple and family relationships by providing an overview of historical and contemporary models of conceptualization, assessment, and intervention. Attention is devoted to important legal, ethical, and clinical considerations unique to working with families and couples, including partner abuse assessment, intervention, and dynamics; child abuse reporting; and roles of families and systems in substance abuse and dependence. Throughout, cultural factors such as the role of poverty, sexual identity, blended families/step-parenting, and multi-racial families are addressed. This course also includes focus on 3 units of special topics toward the CA LPCC license.

COUN 545 COUNSELING ORIENTATION, LAW AND ETHICS, AND CASE MANAGEMENT PRACTICES (4)

This course is designed to clarify the legal and ethical responsibilities of the Clinical Mental Health Counselor (CMHC). 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, will be surveyed. This course also addresses case management practices commonly employed by clinicians. Cultural considerations will be examined as they impact counseling and case management practices. This course satisfies the educational requirements for licensure as a Marriage and Family Therapist and as a Licensed Professional Clinical Counselor in California. It also includes focus on 1 unit of special topics toward the CA LPCC license. Course restricted to Counseling M.A. students only.

COUN 570 SEMINAR MULTICULTURAL COUNSELING (4)

This course is designed to provide students with an understanding of how 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 worldview and see how it affects their counseling approaches in both community and school counseling settings. Students will explore theories of multicultural counseling and development. Students will also become knowledgeable about various minority groups in California and in the United States and how majority culture influences the minority individuals' daily lives and their responses to counseling. The seminar will address multicultural aspects of counseling children, youth, and adults including advocacy and use of culturally appropriate counseling modalities. This course includes focus on 4 units of special topics toward the CA LPCC license. Course restricted to Counseling M.A. students only.

COUN 580 COUPLES AND SEXUALITY COUNSELING (4)

This course provides students with theoretically-based knowledge about and skills in conducting counseling for couples, including addressing sexuality issues. Assessment and counseling interventions covered will reflect the pluralistic needs of couples who are embedded in complex social systems (e.g., legal, health). Issues such as intimate partner violence, infertility, gender roles, and sexual function/dysfunction will be addressed, and cross-cultural considerations will be incorporated throughout all topics. Students will also have opportunities to explore their own world-views as they relate to coupling and sexuality, to increase their effectiveness with a diversity of clients. This course also includes 4 units of special topics and populations toward the California LPCC license.

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 582 PSYCHOPHARMACOLOGY FOR COUNSELORS (3)

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, depressive disorders, hyperactivity, anxiety disorders, psychotic disorders, and dementia). Attention will be paid to the community counselor's role in the effective, multiculturally-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 prescription of psychiatric medication.

COUN 583 SUBSTANCE ABUSE AND DEPENDENCE (2)

A didactic course designed to provide a broad conceptual base regarding major dimensions of alcohol and drug abuse and dependence disorders. The course explores theories of addiction; co-occurring disorders; and medical aspects, effects, and approaches to prevention, assessment, and treatment of alcohol and drug abuse/dependence disorders. The contextual role of the family and larger systems, including the legal system, are addressed. Risk factors, community resources, referral, and prevention information is discussed from developmental and cross-cultural perspectives.

COUN 595 SPECIAL STUDIES (1-4)**COUN 596 CLINICAL CONSULTATION SEMINAR (1-2)**

This seminar will provide a group discussion and supervision format in conjunction with the pre-M.A. Field Experience/Traineeship. This seminar's weekly small group meetings (max of 8 students) are designed to provide campus-based consultation surrounding the Pre-M.A. clinical Traineeship, using case presentation and group discussion. A key aim of the seminar is the development of a model of professional functioning through the integration of theoretical, practice and personal material. Integral to this experience is the exchange of feedback and support among group members. The course is designed to provide an opportunity for continuing evaluation of student growth and counseling efficacy. This component will include evaluation from faculty and site-supervisors, as well as student's ongoing self-assessment. This course is designed to meet California Board of Behavioral Science requirements that allow Pre-M.A. Trainees to earn hours toward MFT licensure.

Criminology and Criminal Justice Studies (CCJS)**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 Area 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; and 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 350 DRUGS AND SOCIETY (4)

Analyzes drug use, misuse, and abuse in society using sociological theories. Explores drug policies and control of drug use, current sociological drug research, and how the media shapes drug perceptions. Highlights various legal and illegal drugs and their societal consequences. Cross-listed as SOCI 340.

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. Cross-listed as POLS 430.

CCJS 370 SEMINAR IN 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 CRIMINOLOGY AND CRIMINAL JUSTICE (4)

An in-depth examination of selected topics and issues in criminal justice. Specific course topic varies by semester. May be repeated for credit.

CCJS 399 LECTURE SERIES (2)

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 decision-making, considering the political and social influences as well as doctrinal forces which have produced various policies and interpretations. Cross-listed 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. Cross-listed with POLS 422

CCJS 407 POLICE, COURTS, AND COMMUNITY RELATIONS (4)

Provides a comprehensive introduction to policing in the United States. Examines the process of policing, police behavior, organization, operations, and their historical perspectives. Covers the relationship between the police and the public as well as the role of courts in controlling and guiding police behavior. Reviews critical issues confronting the police and the best policies and practices in policing.

CCJS 420 SEMINAR IN CRIMINOLOGY (4)

An in-depth analysis of theories of criminal behavior; psychological, sociological, and 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)

The social causes and consequences of delinquency, criminality, addiction, insanity, social unconventionality, and other "deviant" behavior. Examines the conversion and commitment to deviant worldviews, and the social processes involved in the transformation to a deviant identity. Cross-listed as SOCI 314.

CCJS 450 PUNISHMENTS AND CORRECTIONS (4)

Provides an in-depth analysis of the correctional system, including prisons, jails, probation, parole, and community corrections. Examines the history and purpose of punishment and the goals of corrections. Reviews contemporary issues and policies affecting corrections. Cross-listed 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. Cross-listed as POLS 424.

CCJS 490 SENIOR SEMINAR IN 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-level 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 up to 12 units of 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. Cross-listed as SOCI 366.

CCJS 499 INTERNSHIP (4)

In consultation with the internship coordinator, the student selects a public, private, or community agency; gains field experience under the supervision of agency heads; and meets with the internship coordinator to discuss progress. Cr/NC only. May be repeated for a total of 8 units.

Economics (ECON)

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 Area 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. Satisfies GE Area D1 (Individual and Society).

ECON 217 STATISTICS FOR ECONOMICS AND BUSINESS (4)

Microsoft Excel based statistics. Topics include the 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. Prerequisites: computer competency and pre-business math requirement.

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. Prerequisites: 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, ECON 205, and MATH 165 or BUS 211 or ECON 217 or equivalents.

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, ECON 205, and MATH 165 or BUS 211 or ECON 217 or equivalents.

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, ECON 205, and MATH 165 or BUS 211 or ECON 217, or equivalents or consent of instructor.

ECON 319 MANAGERIAL ECONOMICS (4)

Economic analysis applied to the management decisions of public or private firms. The course is oriented to case studies that illuminate the content and applicability of such basic economic concepts as marginality, opportunity costs, and market structure. Topics include: demand analysis, resource allocation, production economics, and cost analysis; profitability analysis; price and nonprice competition; capital budgeting; and long-range strategy formulation. Prerequisites: ECON 305 and 317.

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 and 205.

ECON 330 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 and MATH 165 or BUS 211 or ECON 217. MATH 161 recommended.

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. Prerequisites: 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 ECONOMIC 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. Prerequisites: ECON 303 and 304, or consent of instructor.

ECON 403B SEMINAR IN INTERNATIONAL TRADE (4)

This course covers international trade, foreign direct investment, and immigration. Topics include international trade under imperfect competition and policies to regulate international trade. Vertical and horizontal foreign direct investment models and the relationships among direct foreign investment, immigration, and international trade will be examined. 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 303, 304, and 317 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 equivalents.

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 equivalents or consent of instructor.

ECON 408 SEMINAR IN MATH APPLICATIONS IN ECONOMICS (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, ECON 305, and MATH 161, or equivalents 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 419 SEMINAR IN MANAGERIAL ECONOMICS (4)

An exploration of the problems facing American firms in competing in a global economy. Topics include: product markets, production efficiency, technology, competitive markets, generic industry environments, and competitive strategies. Students will write and present case studies of firms and industries. Prerequisites: ECON 304, 305, 317.

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 HISTORY 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 Area D5 (Contemporary International Perspectives). Prerequisites: 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, and the impact of international relationships on U.S. economic development. Prerequisite: ECON 204 or 205 or consent of instructor.

ECON 440 SEMINAR IN 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 204, 205, 304, 305, and 317.

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. Prerequisites: ECON 204 and 205, or consent of instructor.

ECON 449 SEMINAR IN PROGRAM EVALUATION (4)

This class aims to teach students to apply and interpret the counterfactual model and associated methods in answering policy-relevant questions. The primary focus will be on study design: identifying causal questions and variables of interest, how the question would be answered, necessary assumptions, and potential sources of bias. Prerequisite: ECON 317.

ECON 454 SEMINAR IN BEHAVIORAL AND EXPERIMENTAL ECONOMICS (4)

Economics is the study of how people make choices in a world with constraints. In Neoclassical models, behavior is based on assumptions that may or may not be true. Behavioral economics, on the other hand, takes as its starting point actual behavior (observed either experimentally or in naturally occurring situations), using observations to incorporate more realistic psychological foundations. Typically this means enriching the theory rather than replacing it. Experimental methods are particularly useful in this kind of research. Prerequisites: Econ 305 and Econ 317.

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. May be repeated once for credit.

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. May be repeated up to 8 times for credit.

ECON 499 INTERNSHIP (1-4)

May be repeated twice for credit.

ECON 501 ECONOMICS OF MARKETS AND INDUSTRIES (2-3)

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)

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, and 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. May be repeated for credit.

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. Thirty hours of fieldwork is mandatory. May be repeated for credit.

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)

May be repeated for credit under different topic.

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, Area D1 (Individual and Society). Restricted to: juniors, seniors CRED, CREDC, CREDP, CRED2, plan of EDUC-MA and to credential student group (RUCR).

EDUC 443A OBSERVATION/PARTICIPATION IN MULTICULTURAL SETTINGS (2)**EDUC 481 DEVELOPMENT OF A CREATIVE CLASSROOM (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. 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 the design of educational Web sites. 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. May be repeated for credit under different topic.

EDUC 495 SPECIAL STUDIES (1-4)

May be repeated for credit.

EDUC 509 ORGANIZATION, ADMINISTRATION, AND SUPERVISION OF READING (3)**EDUC 510 SDAIE IN CONTENT-AREA CLASSES (3)****EDUC 511 PROFESSIONAL INDUCTION PLAN: SUPERVISED DEVELOPMENT (1)****EDUC 538 DEVELOPMENT OF LANGUAGE AND THINKING: INFANCY-MIDDLE 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. Prerequisites: 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 for students to assess progress in the program and to complete portfolio development. Grade only. Prerequisites: 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)

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. Open to grad students only.

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 EDUCATIONAL MEDIA AND INFORMATION LITERACY (3)

This course focuses on critical media and information literacy and issues related to researching, creating, and evaluating media in the Internet and Information Age. The course also highlights the origins and threads of cultural studies, media education, and digital literacy in an effort to better map and analyze both the field of digital media and learning and the evolution of digital participation and citizenship.

EDCT 560 INSTRUCTIONAL DESIGN AND TECHNOLOGY (3)

Instructional Design and Technology is a practical course that offers participants training in advanced instructional design methods and relates these to learning theories and pedagogical practices introduced in other Educational Technology courses. Advanced techniques will concentrate on evaluating and using a range of interactive instructional design authoring tools.

EDCT 562 EDUCATIONAL TECHNOLOGY MENTORSHIP (3)

Students will apply educational technology theory and methods through mentorship experiences. Such experiences may include working in the School of Education, Faculty Center, University Library, as well as with public or private partners in an educational or training capacity that utilizes technology. Mentorships require faculty approval, and 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.

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. Prerequisites: consent of instructor and approval of the School of Education.

EDCT 595 SPECIAL STUDIES (1-4)**Education: Early Childhood Education (EDEC)**

EDEC 178 INTRODUCTION TO ECS MAJOR AND DIGITAL PORTFOLIO (1)

In this course students will learn about the requirements and responsibilities of the Early Childhood Studies (ECS) major, and learn about ethical and legal requirements in field placements and professional life. They will understand the purpose of the senior portfolio in the ECS major, learn about different types of portfolios, and practice building a digital portfolio using the software myEfolio. Prerequisites: none. Grading: Credit/No Credit only. Course is not repeatable.

EDEC 201 FOUNDATIONS OF EARLY CARE AND EDUCATION (4)

This course provides an introduction to the theory and research that underlie professional work with young children. Topics include: historical views on childhood and play, influential theorists, historical and contemporary models of early childhood education, principles of developmentally and culturally appropriate practice, contemporary issues in early care and education, professional ethics, and professional career development.

EDEC 220 OBSERVING CHILD DEVELOPMENT IN THE FIRST 8 YEARS (4)

Students will learn the major developmental milestones, research findings, and theories covering the social, emotional, physical, and cognitive development of children from conception through eight years old. Students will concurrently study observation techniques for documenting and assessing children's growth and development. Students' growing knowledge of observation and child development will be applied through 24 hours of supervised field work in an early care and education setting. Students must sign the School of Education Field Experience Agreement before starting at their field site. Course open to sophomores and above.

EDEC 237 CREATING ENVIRONMENTS FOR YOUNG CHILDREN (4)

This course presents an overview of knowledge and skills related to planning and implementing developmentally and culturally appropriate curriculum and environments for young children from birth to eight years old. Students examine how to create and use the physical environment as the foundation for promoting activities that support learning and development, with an emphasis on language and literacy development and the essential role of play. Each student will spend about 24 hours observing and participating in an infant/toddler, preschool, transitional kindergarten, or kindergarten classroom that has been approved by the instructor. Students must sign the School of Education Field Experience Agreement before starting at their field site. Course open to sophomores and above.

EDEC 247 PHYSICAL DEVELOPMENT AND HEALTH IN CHILDHOOD (3)

In this course, students will study the factors that promote optimal physical development and health in childhood. Students will consider practical applications of this knowledge in a variety of organizations that serve young children. Students will also study the basics of parent education, so that they can work effectively with parents to keep children safe and to see that children receive needed health services. Prerequisite: none. Grade only. Course is not repeatable.

EDEC 270 FAMILIES AND CHILDREN IN DIVERSE SOCIETIES (4)

Class participants will study the dynamic interactions of race, culture, gender, socioeconomic status, and other factors as they relate to the care and education of children from diverse populations. Students will explore the diversity of family systems, sociocultural factors affecting the child's development, and the socializing influences of community. The coursework helps students become more informed and effective professionals and community members by promoting the development of the knowledge, dispositions, and skills needed to work effectively with families and children in a pluralistic society.

EDEC 347 COMMUNITY SERVICES FOR CHILDREN AND FAMILIES (2)

Students will complete a field placement (at least 45 hours) in an approved agency or organization that serves children in a non-education/non-child care setting. Students will perform tasks set by the placement agency, attend weekly class meetings, and complete readings and assignments related to working effectively with diverse children and families. Students must sign the School of Education Field Experience Agreement before starting at their field site. Prerequisites: declared ECS Major with a concentration in Early Childhood Development, EDEC 220, junior or senior standing. This course can be taken one time only. 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 prerequisite to the Multiple Subjects credential program, can be applied to the Child Development Permit, and satisfies GE Area E (the Integrated Person). Grade only.

EDEC 435 LEADERSHIP ON BEHALF OF CHILDREN AND FAMILIES (4)

In this course, students will study and apply the principles and strategies that underlie effective administration of programs for young children and families and effective advocacy on behalf of young children and families. Students will build and use leadership skills in the areas of identifying priorities, organizational planning, guiding staff, communicating clearly, and working collaboratively with community partners. Present-day early childhood advocacy issues will be explored and students will engage in leadership efforts that engage their newly developed understandings and skills. Prerequisite: junior- or senior-level standing.

EDEC 437 INTEGRATED CURRICULUM IN EARLY CHILDHOOD CLASSROOMS (4)

In this course, students will learn to plan and implement developmentally and culturally appropriate curriculum for children in early elementary classrooms. Through study of professional resources and participation in an instructor-approved classroom, students will create learning and assessment opportunities that enable young children to construct knowledge through an integrated approach that includes all curriculum areas and that aligns with relevant state and professional standards. Students must sign the School of Education Field Experience Agreement before starting at their field site. Prerequisites: EDEC 237 and EDEC 220. Includes 24 hours of fieldwork.

EDEC 447 CHILDREN'S EMOTIONAL DEVELOPMENT AND MENTAL HEALTH (3)

In this course, students will deepen their understanding of children's emotional development from birth through age eight, and learn about common mental health problems in early childhood. Topics include the role of sociocultural context, risk and protective factors, attachment and temperament, resilience, common mental health problems, and mental health observation and screening tools. Prerequisite: EDEC 220, junior standing. Grade only. Course is not repeatable.

EDEC 460 INTRODUCTION TO RESEARCH IN EARLY CHILDHOOD STUDIES (4)

This course provides an overview of quantitative and qualitative research methods commonly used to study young children. Topics will include research methods, the role of context in research, common early childhood psychological measurement tools, observational techniques, research ethics, library research strategies, and evaluating research reports.

EDEC 478 EARLY CHILDHOOD STUDIES PORTFOLIO (1)

In this seminar, students will compile and reflect upon their work in the Early Childhood Studies major. Final products will be presented to faculty and students in the Early Childhood program. Prerequisite: senior in the Early Childhood Studies major.

EDEC 490 SPECIAL TOPICS IN EARLY CHILDHOOD STUDIES (1-4)

A course designed according to the interests of a particular faculty member, providing opportunities for diversification in content and reading. Grade only. May be repeated for credit under a different topic.

EDEC 495 SPECIAL STUDIES (1-4)

Independent study completed under the supervision of a faculty member. May be repeated for credit.

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. Topics include play's relationship to learning in all areas of development and academic disciplines, history of play, 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 ECE (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 535 LEAD ADV FOR CHILDREN AND FAMILIES (3)

Students will critically examine research, theories, and policies related to administration of programs that serve children and families. Students will develop leadership skills in the areas of teaching adults, administering programs, and advocating effectively for children and families within and outside of early care and education programs. Taught spring semester of odd years.

EDEC 538 COGNITIVE AND LANGUAGE DEVELOPMENT IN EARLY AND 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, including in environments where children are learning more than one language. Grade only. Prerequisite: graduate student in Education or permission of instructor. Taught spring semester of even years.

EDEC 578 PROJECT CONTINUATION (1-3)**EDEC 595 SPECIAL STUDIES (1-4)**

Education: Leadership (EDEL)

EDEL 580A INTRODUCTION TO EDUCATIONAL 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 learning and curriculum design. The candidate learns how to explore 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, and 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)

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, and literature study and composing strategies. Grade only.

EDMS 464 TEACHING READING AND LANGUAGE ARTS TO OLDER STUDENTS AND STRUGGLING READERS (3)

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 (3)

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), and 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 INTERN 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 intern individual learning plan. Cr/NC only.

EDMS 481B INTERN 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 intern individual learning plan. Cr/NC only.

EDMS 481C INTERN 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 intern individual learning plan. Cr/NC only.

EDMS 481D INTERN 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 intern 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)

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 DEVELOPMENT 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 the 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: Single Subject (EDSS)**

EDSS 418 DEVELOPMENT IN ADOLESCENCE AND EMERGING ADULTHOOD (3)

An analysis of adolescent development and contemporary adolescent experiences as it addresses the central question of how adolescents differ from adults and children in terms of development. Examination of specific dimensions of adolescent development include physical, cognitive, psychological, social, sexual, moral, and spiritual. Course content is appropriate for those planning to pursue careers in psychology, counseling, social work, and education. Restricted to: juniors, seniors CRED, CREDC, CREDP, CRED2, plan of EDUC-MA and to credential student group (RUCR).

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 situations 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 settings 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 (1-4)

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. May be repeated for credit.

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 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 I courses. Must be taken concurrently with EDSS 458.

EDSS 495 SPECIAL STUDIES (1-4)

This course is repeatable for credit.

Education: Special Education (EDSP)

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)

EDCU 421A represents a first course in the study of theoretical orientations, instructional strategies and classroom management to provide inclusive educational support for students with disabilities. The course is designed for Educational Specialist credential candidates in the Mild/Moderate, Moderate/Severe, and Communication Disabilities programs. Course content offers theoretical and conceptual underpinnings of the development of academic skills of students and the development of positive classroom ecologies to support students with special needs. Theoretical and conceptual foundations from a variety of paradigms are developed into applied techniques of instruction and classroom management through a series of readings, exercises, and assignments throughout the course. Prerequisite: Admission to the Education Specialist credential program or permission of the instructor.

EDSP 421B EARLY FIELD PLACEMENT (1)

EDSP 421B is an Early Field Placement during which candidates spend approximately 60 hours observing and participating in three special education classrooms or placements. In conjunction with EDSP 421A and the introduction on specific topics, the candidate will observe the teacher and students in the observation classrooms/settings to understand how these topics are operationalized in special education settings. These observations will be discussed further during class and via online discussion forums. The guided exploration of the work of a special education teacher and the ecology of the classroom will enrich the candidate's understanding of the profession and help to build the foundational knowledge and skills needed to be an effective special education teacher.

EDSP 421C USING EDUCATIONAL AND ASSISTIVE TECHNOLOGY (1)

EDSP 421C surveys the use of technology to enhance teaching and learning in special education classrooms. A variety of topics are considered including the roles of technology in teaching and learning, designing lessons that incorporate the effective use of technology and using technology to support special populations. Both theory and practice in the use of educational and assistive technology will be examined through readings, discussions and activities in an online environment. Prerequisite: Admission to the Education Specialist credential program or permission of the instructor.

EDSP 421D HEALTHY LEARNERS & SCHOOL ENVIRONMENT (1)

In this course, personal, family, school, and community health are the framework for presenting coordinated health education in K-12 schools to teaching credential candidates. Subject matter includes school health laws, universal precautions, common diseases and prevention, drugs, alcohol and tobacco, sexuality, nutrition, fitness, pregnancy, special populations, child abuse, bullying, gender issues, community, diversity, and human ecology. Based upon California Health Framework, meets state credential requirements. Prerequisite: admission to the Education Specialist Credential Program or 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. Class open to student programs of CRED, CREDC, CRED2, or Group RUCR (admitted to credential).

EDSP 423 ASSESSMENT OF STUDENTS WITH DISABILITIES (3)

In EDSP 423, candidates explore the basic principles and strategies of assessment and the ways that assessment informs curricular and instructional decisions for individuals with diverse special education needs. Candidates learn to use a variety of formal and informal assessments, linking these with progress monitoring to analyze student performance and develop appropriate goals based on findings. 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 Education Specialist Credential program or by permission of the instructor.

EDSP 424 POSITIVE BEHAVIOR SUPPORTS FOR STUDENTS WITH DISABILITIES (3)

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 Specialist Credential Program or by permission of the instructor.

EDSP 425 DEVELOPING ACADEMIC 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 Specialist Credential Program or permission of the instructor.

EDSP 426 COMMUNICATION DEVELOPMENT: ASSESSMENT AND INSTRUCTION (4)

In this course, students are presented with an overview of typical and atypical communication development in special populations. Evaluation measures, evidence based practices and effective instructional strategies related to the implementation of special education services for students with communication disorders and their families are addressed. Foundational knowledge on intervention techniques, AAC, and second language development is provided. Additional emphasis is placed on the communication and collaboration skills useful in forming productive partnerships with families, school personnel and community service providers. Class readings and course assignments are integrated within this class to establish the connection from special education theory to practice culminating in the development of a communication report.

EDSP 428 EDUCATION OF STUDENTS WITH MODERATE/SEVERE DISABILITIES (4)

EDSP 428 provides 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 required for successful inclusion in school, community, and workplace. Grade only. Prerequisite: admission to the Education Specialist 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 YOUNG CHILDREN WITH SPECIAL NEEDS (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. Prerequisite: Junior or Senior standing.

EDSP 433 TEACHING ADOLESCENTS WITH SPECIAL EDUCATION NEEDS (3)

Effective teaching practices for secondary-aged students with special needs and giftedness, with emphasis on academic and social needs, as well as teachers responsibilities in the Individual Education Program (IEP) process. Candidates develop strategies for collaborating with families and other educators. Course includes field experiences and online activities. Prerequisite: Concurrent enrollment in EDSS 458/Student Teaching or consent of the instructor.

EDSP 460 TEACHING EVENT SEMINAR (2)

This seminar accompanying the student teaching experience (EDSP 465 or 467) is designed to support student teachers as they apply the skills and knowledge they've learned in coursework to the teaching of individuals with special needs. Through the seminar, they will also complete a teaching event demonstrating their competence as special educators as well as receive guidance and support aimed at a successful student teaching experience. Graded. Prerequisites: Admission to the Education Specialist Mild/Moderate Disabilities Credential program, Corequisite: EDSP 465 or 467.

EDSP 465 PRACTICUM: MILD/MODERATE DISABILITIES (11)

EDSP 465 represents the student teaching component of the Mild/Moderate Disabilities credential program. Credential candidates student teach for 12 or more weeks under the guidance and supervision of a master teacher in the schools as well as a University supervisor from SSU. Cr/NC only. Prerequisites: Admission to the Education Specialist Mild/Moderate Disabilities Credential Program, completion of requirements described in handbook. Corequisite: EDSP 460.

EDSP 467 PRACTICUM: MODERATE/SEVERE DISABILITY (11)

EDSP 467 represents the student teaching component of the Moderate/Severe Disabilities credential program. Credential candidates student teach for 12 or more weeks under the guidance and supervision of a master teacher in the schools as well as a University supervisor from SSU. Cr/NC only. Prerequisites: Admission to the Education Specialist Mild/Moderate Disabilities Credential Program, completion of requirements described in handbook. Corequisite: EDSP 460.

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 Intern'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 490A EDUCATING STUDENTS WITH AUTISM SPECTRUM DISORDERS (3)

This course intends to provide class participants with an overview of characteristics, etiology, and prevalence of autism spectrum disorders. An additional aim of this course is to supply participants with the knowledge and skills necessary to support the learning of children with autism spectrum disorders including instructional strategies, classroom organization, and teaming with families and professionals.

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. Class restricted to students of the Clear Induction Ed Spec Cred sub plan.

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 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 individual 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)

EDSP 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 programmatically, sound. Prerequisite: admission into the Professional Level II Education Specialist Credential Program.

EDSP 578 PROJECT CONTINUATION (1-3)**EDSP 590 CRITICAL ISSUES IN SPECIAL EDUCATION (3)**

Education 590 examines advanced issues surrounding current and critical issues in special education. Students will engage in self-directed inquiry exploring emerging theories and research in the field of special education. Further, the course will focus on the importance of understanding and respecting differing perspectives and positions related to special education theory and research. Prerequisite: admissions to the Professional Level II program, M.A. program, or consent of the instructor.

EDSP 595 SPECIAL STUDIES (1-4)

Course may be repeated for credit.

Education: Teaching English to Speakers of Other Languages (EDTE)

EDTE 540 THEORIES AND RESEARCH IN SECOND LANGUAGE ACQUISITION (3)

This course provides an overview and critical examination of the theories and research in second language acquisition (SLA) and explores 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 the SOE M.A. 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. Prerequisites: admission to SOE M.A. Program, EDTE 544.

EDTE 542 TEACHING MULTILINGUAL WRITERS (3)

This course investigates 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 the SOE M.A. 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. Prerequisites: admission to the SOE M.A. 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 the SOE M.A. 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 the SOE M.A. Program.

Engineering Science (ES)

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. 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 the ES major). Corequisite: ES 101A, or permission of the instructor. This course meets the GE science laboratory requirement.

ES 110 INTRODUCTION TO ENGINEERING AND LABORATORY EXPERIENCE (1)

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. Prerequisite: Must be eligible to enroll in MATH 45 or MATH 161. Instructor's consent required for co-enrollment with ES 112.

ES 112 FUNDAMENTALS OF DIGITAL LOGIC DESIGN (1)

Laboratory, 3 hours. Review of set theory and binary system, digital logic, Venn diagram, logic gates, minimization techniques, combinatorial logic and design of simple combinatorial logic circuits such as 1-bit adder; concept of coders, decoders, and integrated circuits. Prerequisites: ES 110 and Must be eligible to enroll in MATH 45 or MATH 161. Instructor's consent is required for co-enrollment in ES 110.

ES 210 DIGITAL CIRCUITS AND LOGIC DESIGN (4)

Students learn how to analyze and evaluate scientific, inductive and deductive reasoning, through digital logic and its application to logic gates and digital electronic circuits. Laboratory work includes designing, building and testing of digital circuits and designs. Project assignments require students present their own design and the final product in public, making persuasive presentations with efficient verbal and non-verbal skills, and listening to peers critiques for improvement. This course fulfills GE A3. Prerequisites: ES 112, Corequisite: 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 CS 115, 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. Prerequisites: ES 110, and CS 115, and MATH 211; Corequisite: ES 220 and PHYS 214; or consent of instructor.

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, and single and multistage amplifiers; modeling and simulation using spice/multisim software. Prerequisites: ES 220 and ES 221, MATH 211, and CS 115.

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. Prerequisites: ES 220 and ES 221, MATH 211, and CS 115.

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 and CS 115, 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 and ES 220, or consent of instructor.

ES 330 ELECTRONICS II (2)

Lecture, 1 hour, lab, 3 hours. Output stage design of the amplifiers, non-linear op-amp circuits, differential amplifiers, common mode and differential mode circuit analysis, half-circuit analysis, study of current mirrors and active load design, analysis of two stage active load CMOS op-amp, high frequency models of BJT and MOSFET, analysis of low and high frequency responses of amplifiers, open circuit time constant (OTC) and short circuit time constant (STC), study of tuned amplifier. Prerequisite: ES 230 and MATH 241 or consent of instructor.

ES 345E ENGINEERING APPLICATIONS OF PROBABILITY THEORY (1)

Lecture, 1 hour. This is a one-unit course introducing how to apply probability theory to model engineering problems, particularly in communications and networking areas. Topics covered include application of probability to measure of information and redundancy, moments to measure power, correlation to determine correlation function, power spectrum and linear prediction, and estimation of statistical parameters. Corequisite: math 345E 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, and fast Fourier transforms. Prerequisite: MATH 241 and MATH 211, or consent of instructor. Cross-listed as 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 330, MATH 241 and MATH 261. Cross-listed as PHYS 430.

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 and characterization of transistors may be assigned. Prerequisite: ES 230 or consent of Instructor. Cross-listed as 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, and 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. Prerequisites: ES 314 and ES 440 or consent of instructor.

ES 442 ANALOG AND DIGITAL COMMUNICATIONS (4)

Lecture, 3 hours; laboratory, 3 hours. Mathematical modeling of signals, time and frequency domain concepts, spectral density, components of a communications system, and analog signal transmission. Analog modulation and demodulation techniques, FDM, noise and bandwidth; Digital signals and their transmission, PCM and low bit rate coders, TDM, data encoding for efficient baseband digital transmission, digital data modulation. Laboratory work consistent with the lecture topics covered. Prerequisites: ES 230 and ES 400, 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, and system design. Prerequisite: ES 430; Corequisite: ES 442 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 and junction photodiodes; p-i-n diodes and avalanche photodiodes; detector noise. Prerequisite: PHYS 314 or consent of Instructor. Cross-listed 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. Cross-listed 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. Prerequisite: 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 (1)

Senior Design Project Planning calls on the professional skills of the discipline; it draws on the core disciplines of the students' major field of study, as well as exploring necessary topics such as scheduling, organization, budgeting, prototyping, develop teamwork, customer liaison skills, employ creativity in proposing new solutions, and so forth. Hence, by the end of the capstone process students are expected to have a good understanding about various design phases, including analysis phase, a design phase, a validation phase and a production phase. Prerequisite: ES 310 and 330 and Senior standing, or consent of the instructor.

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 495 SPECIAL STUDIES (1-4)**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. Prerequisite: Consent of the instructor only. Permission required.

ES 498 ENGINEERING PRACTICUM (1-4)

Under the faculty instructor's supervision, engineering juniors and seniors take this service learning training to further their practical engineering experience. A specific assignment is given by the instructor to each student for assisting the class to learn either in class or labs. Regular meetings with the instructor necessary keep track of progress of the assignment and evaluate the student's learning. Prerequisite: junior or senior standing. Consent of instructor required.

English (ENGL)

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 and 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. Satisfies GE Area A2 (Fundamentals of Communication). Grade only. Three units each semester. Prerequisite: 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 and 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. Satisfies GE Area A2 (Fundamentals of Communication). Grade only. Three units each semester. Prerequisite: 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 and 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 Area A2 (Fundamentals of Communication). Prerequisite: completion of the English Placement Test (EPT).

ENGL 160A HUMANITIES LEARNING COMMUNITY (4)

ENGL 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

ENGL 160B HUMANITIES LEARNING COMMUNITY (4)

ENGL 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

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 Area A1. Prerequisites: completion of GE Areas 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 Area A1.

ENGL 203 INTRODUCTION TO LINGUISTIC STUDIES (4)

The nature and structure of natural language; language variation; child first and second language acquisition; the 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; introduction to techniques used in the scientific study of language. Satisfies GE Area D1 (Individual and Society).

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 Area 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 Area C2 (World Literature). Prerequisite: ENGL 101.

ENGL 235 EARLY BRITISH & AMERICAN LITERATURE (4)

Study of literary history and significant works in the British and American traditions from the Anglo Saxon through the end of the 18th century.

ENGL 236 LATER BRITISH & AMERICAN LIT. (4)

Study of literary history and significant works in the British and American traditions in the 19th and 20th centuries.

ENGL 237 SURVEY: EARLY AMERICAN LITERATURE (4)

Survey of American Literature from the 17th century through the middle decades of the 19th 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 18th century. Focus is on major authors in their cultural context.

ENGL 240 SURVEY: LATER BRITISH LITERATURE (4)

Survey of British literature from the late 18th century to the present. Focus is on major authors in their cultural context.

ENGL 273 CRITICAL AND CREATIVE READINGS OF LITERARY TEXTS (4)

This course investigates the literary expressions of a particular era or theme. Through critical reading and research, students will develop the skills of synthesis, analysis, and creative representation of ideas. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: completion of GE Category A2 (Engl 101 or ENGL 100B) required.

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 multi-ethnic, 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 GE Area C3.

ENGL 292 LIBRARY AND INFORMATION RESEARCH: HUMANITIES (4)

An introduction to the use of Humanities resources in the Schulz 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 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. 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; and 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. This course is repeatable for credit.

ENGL 304 WAR AND PEACE LECTURE SERIES (4)

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 C2 (Literatures, Philosophies and Values). Prerequisite: Upper-Division standing.

ENGL 307 INTRODUCTION TO FICTION WRITING (4)

A writing workshop which focuses on crafting the short story. This course is repeatable for credit.

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.

ENGL 314 MODERN WORLD LITERATURE 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 Area 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 Area C2 (World Literature). Satisfies the 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 Area 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, and 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 TO 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. This course may be repeated for credit. Prerequisite: ENGL 301.

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.

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. May be repeated for credit.

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. May be repeated once for credit.

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, 17th century, Restoration and 18th century, Romantic, Victorian, and 20th 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 17th through the 20th 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. May be repeated once for credit. Course is cross-listed with WGS 451.

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. May be repeated for credit. 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 with a different topic.

ENGL 474 STUDIES IN DRAMA (4)

Study of representative plays of a particular period: Medieval, Renaissance, Neoclassic, 19th century, or Modern. Please see Schedule of Classes for current offering. May be repeated for credit with a different topic.

ENGL 475 MASTER CLASS IN NONFICTION (4)

An advanced workshop in creative nonfiction, focused on the writing of publishable essays and the art of the book proposal. Prerequisite: ENGL 375, 352, 430 (Creative Nonfiction), or consent of instructor. May be repeated once for credit.

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 once 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 under different topic.

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 under different topics.

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 under different topics.

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 once 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. 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. Prerequisites: consent of instructor and department chair. May be repeated for credit.

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 8 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 M.A. 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 M.A. 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/POSTCOLONIAL 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. Prerequisite: 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 Anglophone 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. Prerequisite: 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 M.A. 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.

Environmental Studies and Planning (ENSP)

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 Area 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 (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, and graphic display of information. Conceptual introduction to calculus, differential equations, and complex numbers. Prerequisite: Completion or concurrent enrollment in GE Area B4 (Math Concepts).

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, and attitudes in relation to human and non-human environment. Prerequisites: Junior- or senior-level 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 GE Area B2 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 Area B1 (Physical Sciences).

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.

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, and logical and conceptual foundations for an environmental ethic. Prerequisite: completion of GE Area A (Communication and Critical Thinking).

ENSP 307 ENVIRONMENTAL HISTORY (4)

Environmental history offers an earth's-eye view of the past, by addressing the many ways in which humans have interacted with the natural environment over time. How has the environment shaped the course of human history, and how have human actions and attitudes shaped the environment? And how does studying past environments help us understand our present-day challenges? All too often, historians study the human past without considering nature; similarly, all too often, scientists study nature without considering human history. We will explore the value of integrating these different perspectives, and argue that a historical perspective is absolutely crucial if one hopes to understand contemporary environmental issues. Prerequisite: Completion of GE Area 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. Prerequisite: Junior- or senior-level standing.

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.

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, and public finance. Consideration of the evolving forms and functions of cities, towns, and rural areas and society's attitudes toward development, environmental concerns, and 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 (3-4)

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- or senior-level standing.

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: Junior- or senior-level standing; Introduction to Planning (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: Junior- or senior-level standing.

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. Prerequisite: ENSP 302 or BIOL 122 or BIOL 131 (can be taken concurrently), junior- or senior-level standing only.

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. Prerequisites: Junior- or senior-level standing, and completion of GE Area B4 (Mathematical Concepts) or prior or concurrent enrollment in ENSP 202.

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. Prerequisites: MATH 160, MATH 161, or ENSP 202; and 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. Prerequisites: MATH 160, MATH 161, or ENSP 202; and PHYS 114 or PHYS 210A required.

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 class starts with the idea that institutions of government are not a fixed inheritance but choices that are constantly being revised. The goal of the course is to sort out that assertion while providing a basic introduction to both American political institutions and major environmental issues. We will look at choices shaping the structure of governance and tools of environmental policy. Where are we heading in terms of democratic decision-making, responsibility, and accountability? How does the realm of international policy dovetail with national-level governance? Prerequisite: Completion of GE Area D4.

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. Prerequisite: junior- or senior-level standing.

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. Prerequisite: juniors, seniors, or 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 in Planning Concentration 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. Prerequisite: completion of ENSP 411A.

ENSP 412 HEALTHY COMMUNITIES PLANNING (3-4)

Introduces students to the field of planning for healthy communities, including the relationship of the built environment and land conservation to healthy eating, bicycling and other forms of active transportation, walkability and active living, mental health, crime and violence, access to health care, health equity, etc. Students will evaluate the rapidly evolving thinking on these topics. Prerequisites: juniors, seniors, graduate students; Introduction to Planning (ENSP 310) recommended.

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: sophomores, juniors, seniors, or graduate students; ENSP 310 recommended.

ENSP 415 LAND USE LAW (3)

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. Prerequisites: Juniors, seniors and grad students only; ENSP 310 recommended.

ENSP 416 ENVIRONMENTAL PLANNING (3-4)

This course focuses on the relationship between land use planning and environmental and natural resources concerns, using property and landscape as our primary lenses. We will consider how ideas regarding resource management, open space, biodiversity, "sustainability", etc., are reflected in land use planning processes and practices. The course will examine broad planning and regulatory tools, such as EISs, regional planning, and resource management planning, and more specific applications such as Habitat Conservation Plans and open space planning. Prerequisite: ENSP 401 recommended.

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: Juniors and seniors only; ENSP 310 recommended.

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. Transportation impact assessment. Congestion management, energy conservation, sustainability, and environmental impact considerations. Prerequisite: ENSP 310 recommended.

ENSP 421 LANDSCAPE HISTORY 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, or graduate students. Cross-listed as HIST 467.

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. Prerequisite: juniors, seniors, or graduate students.

ENSP 423 RESTORATION ECOLOGY (5)

Lecture and 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: BIOL 130A/130B or BIOL 121/122 or BIOL 121/130A or BIOL 122/130B or BIOL 130/131. 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; and climate change and fire. Course Fee.

ENSP 425 RESTORATION AND SOCIETY (4)

This capstone course focuses on the ideas and theories behind environmental restoration work and asks some critical questions about 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 mean by the terms "wilderness", "native", "diversity", and so forth? Do environmental mitigation projects really work? We will also look at several specific case studies through the semester. Prerequisite: Seniors and Graduate students only, consent of instructor.

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 blueprints for biodiversity conservation and evaluate those strategies as alternative scenarios in a GIS environment. Prerequisites: ENSP 322, ENSP graduating seniors or 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.

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: Junior- or senior-level standing.

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-level standing 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, junior- or senior-level standing, or consent of instructor.

ENSP 439L COMPUTER APPLICATIONS IN ENERGY MANAGEMENT LABORATORY (2-3)

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. Prerequisites: ENSP 337, junior- or senior-level standing.

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 444 OUTDOOR LEADERSHIP (4)

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 450 WATER TECHNOLOGY (3-4)

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 Area B4 (Mathematical Concepts) and one semester of chemistry, 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.

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. This may be repeated for credit.

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. Prerequisites: consent of instructor required prior to registration; written contract and faculty approval. May be repeated for credit.

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. Prerequisite: 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. Prerequisites: successful completion of at least two ENSP courses and submission of a completed SSU special studies form; ENSP majors or minors or consent of instructor. Course may be repeated for credit.

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. Prerequisites: ENSP majors, senior-level 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. Prerequisites: ENSP majors, senior-level 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, junior- or senior-level standing or consent of instructor. Course may be repeated for credit.

French (FR)

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. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

FR 101L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) weekly of practice sessions involving online 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. Competency-based testing of listening, speaking, reading, writing, and cultural skills. Grammatical content includes past tenses, future, conditional, subjunctive, object pronouns, etc. Prerequisite: FR 101 or by examination. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

FR 102L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) weekly of practice sessions involving online 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, augmented by more sophisticated elements of syntax, presented within the context of French and francophone cultural materials. Prerequisite: FR 102 or by examination. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

FR 201L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) weekly in practice sessions involving online 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 intermediate level. Prerequisite: FR 201 or by examination. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

FR 300 INTRODUCTION TO LITERARY ANALYSIS AND CRITICAL WRITING (4)

Study of advanced aspects of French grammar and stylistics with a focus on introducing students to literary analysis, including poetry, theater, and narrative prose. Oral and written presentations. May be repeated for credit when course content is different. Prerequisites: FR 201 or equivalent, and FR 202. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages). May be repeated for credit.

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 versus emerging nationalisms, and the quest for identity, personal, cultural, and national. Satisfies GE Area C2 (Literature, Philosophies and Values). Prerequisite: completion of GE Area A. May be repeated for credit.

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). Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

FR 321 FRANCE TODAY (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 Revolution to the present. Readings, discussion, and oral and written reports in French. Prerequisite: FR 300 (may be taken concurrently). Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

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. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

FR 411 FRENCH LITERATURE (4)

Readings in theatre, prose, and poetry representing major writers and movements from the 19th and 20th centuries. May be organized around themes or genres or by aesthetic movements. Readings, discussion, and oral and written reports in French. Prerequisite: FR 321. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

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, French impressionism, Theatre and society, etc. Readings, discussions, and oral and written reports. May be repeated for credit when topics change. Prerequisite: FR 320 or 321 (may be taken concurrently). Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

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). Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

FR 495 SPECIAL STUDIES (1-4)

Directed individual study. Prerequisite: consent of instructor. May be repeated once for credit.

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. May be repeated once for credit.

Geography (GEOG)

GEOG 201 GLOBAL ENVIRONMENTAL SYSTEMS (4)

This course presents a broad survey of how the earth works. It focuses on the processes within, and the relationships between, the four global sub-systems: the atmosphere, biosphere, hydrosphere, and lithosphere. The course examines how physical, chemical, and biological functions create local, regional, and global climate and landscape patterns. It also explores the links between human activities and changes in climate, vegetation patterns, and landform processes. The course includes weekly two-hour lab sessions in which students participate in field-based data collection exercises and conduct scientific analyses. Satisfies GE Area B1 (Physical Science).

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 Area 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 Area D2 (World History and Civilization).

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 Area D5 (Contemporary International Perspectives).

GEOG 312 GEOGRAPHIC CONFERENCES (1-2)

Students attend a professional meeting in the Western Region, including but not limited to CGS, APCG, and AAG meetings. Students participate in at least one day of professionally-led field trips organized through the conference and one day of scholarly presentations. A fee will be charged for this course. Course may be repeated for credit. Up to 2 units of GEOG 312 in total may be counted towards the major.

GEOG 313 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, and 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 314 FIELD EXPERIENCE (1-2)

Field experience is provided in a variety of topical areas. The course titles and contents will vary and may be repeated for credit. Please see the current Schedule of Classes for the particular topic offered. A fee will be charged for this course. Up to 2 units of GEOG 314 in total may be counted toward the major.

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. Laboratory fee may be charged; see current Schedule of Classes.

GEOG 317 LAB METHODS IN PHYSICAL GEOGRAPHY (2-3)

This course provides hands-on experience with laboratory analysis techniques commonly used in physical geography. Topics include stratigraphic and laboratory analyses, report writing, and data presentation. Data collected from soil and sediment profiles and tree rings will be used to interpret environmental conditions. Students will follow laboratory methods, protocols, and use analytical equipment. Laboratory fee may be charged; see current Schedule of Classes. Prerequisites: GEOG 201 or consent of instructor.

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 GLOBALIZATION AND ENVIRONMENTS (4)

This course critically analyzes the practices and ideas that underlie economic development and the resultant degradation of environments. The class attends to ways that specific people and places have either resisted environmental impoverishment, or alternatively worked together to create different, environmentally and socially sustainable paths to empowerment and well-being.

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 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 Area 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 350 GLOBALIZATION AND THE CITY (4)

This course examines the evolution of cities as local and global political, economic and social centers. It explore the forces that drove urban growth and change in the 20th century, with a focus on how these forces shape contemporary issues such as inequality, cultural change, and segregation.

GEOG 352 CLIMATE CHANGE AND SOCIETY (4)

This course briefly reviews climate change mechanisms and models. It then turns to its main topics: attempts and failures to mitigate greenhouse gas production, specific predicted challenges, and current and future attempts to adapt to the environmental and social impacts related to changing climates. The course compliments GEOG 372.

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 201, GEOL 102, or consent of instructor.

GEOG 365 BIOGEOGRAPHY (4)

Biogeography is the study of plant and animals distributions at local to global spatial scales, and seeks to understand the physical, biological and human processes that determine these patterns through time. This is a highly integrative field of inquiry, pulling on concepts, theories and data from general ecology, evolutionary biology, geology, physical and human geography, and geospatial science. With its perspective on broad spatial and temporal scales, Biogeography is particularly relevant for designing viable long-term strategies for nature conservation in the face of modern human-induced changes, such as global warming and habitat conversion. This course uses lectures, reading assignments and an individual student project to explore past and present biota at regional to global scales, and a field trip to understand our local northern California ecosystems.

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 201 or consent of instructor.

GEOG 372 GLOBAL CLIMATE CHANGE: PAST, PRESENT, AND FUTURE (4)

An advanced course focusing on evidence of past climate change and predicted future change. Research methods used to reconstruct past climates are explored. Climate dynamics and the response of the environment will be examined. Prerequisites: GEOG 201 and junior status.

GEOG 375 NATURAL HAZARDS (3-4)

This course examines natural hazards in relation to human populations and activities around the world. It focuses on disasters generated by weather, climate, and geomorphic processes (such as hurricanes, landslides, tsunamis, and earthquakes) as well as global climate change. It considers risk assessment, hazard perception, population change, and impact on the built environment. Prerequisite: GEOG 201 or ENSP 303 or consent of instructor.

GEOG 380 ENVIRONMENTAL REMOTE SENSING (4)

Environmental remote sensing uses imagery from satellite and airborne sensors to map properties of the Earth over broad spatial scales. This course develops an understanding of physical principles behind remote sensing, explores a range of sensors, spatial scales, and locations, and uses image processing techniques for extracting useful environmental information.

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. Laboratory fee may be charged; see current Schedule of Classes.

GEOG 387 INTRODUCTION TO 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: Course requires a basic competency with Microsoft operating system and Office applications.

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 AMERICA AND THE CARIBBEAN (4)

From an environmental history perspective, the class begins with an investigation of pre-Columbian and post-contact social ecologies. This leads to analysis of more contemporary processes such as rural modernization, the rapid growth of cities and migration, the role of identity and women, and the dynamics of free-trade globalization and international relations.

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 460 LAB ASSISTANT IN GEOGRAPHY (2)

Open only to advanced students who have been invited by the faculty member to serve as a Lab Assistant for GEOG 201 Global Environmental Systems. Intended to give students experience in assisting the instructor in the laboratory. Three units may be counted towards the Geography major. Prerequisite: consent of instructor. May be repeated once for credit.

GEOG 483 ENVIRONMENTAL GEOGRAPHIC INFORMATION SYSTEMS (3-4)

Environmental issues typically involve a range of physical, ecological and socio-economic factors with complex interactions that span multiple spatial and temporal scales. Computer-based Geographic Information Systems (GIS) are particularly well-suited for describing, analyzing and modeling environmental problems and datasets, and the technology is widely used for local- to global-scale research, impact assessment, conservation planning and natural resource management. This course investigates a range of environmental problems through the unique perspective afforded by geospatial data analysis within a GIS. Lectures introduce the ecological, scientific and societal issues associated with major environmental issues of our time, such as land-use change, biodiversity loss, and global carbon emissions. These issues are then quantitatively analyzed with real-world spatial datasets using GIS-based methods and tools in coordinated laboratory exercises. In the process, students extend and strengthen GIS skills and concepts acquired through Geog 387. Prerequisites: Geography 387, basic college-level math, statistics helpful.

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 as 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 with a grade of B or better or consent of instructor.

GEOG 490A SENIOR PRE-SEMINAR (1)

This field-based course is meant to help seniors prepare for original research associated with the Senior Seminar the following semester. Through field practice, students learn how to formulate research hypotheses and/or questions. The course meets six times. Four meetings are four hours in duration and involve off-campus exercises. Prerequisite: Class open to Geography majors and seniors and graduate students only.

GEOG 490B SENIOR SEMINAR (4)

In this writing-intensive seminar, seniors formulate, propose, and conduct an original research project. Students then write a concise and professional report on their analysis and findings. We will also address professional development. Prerequisite: GEOG 490A; Class open to Geography majors and seniors and graduate students only.

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-level 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. May be repeated once for credit.

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-level 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. May be repeated once for credit.

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)

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 Area 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 Area 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 the student must be enrolled in the AMCS, LIBS, CALS, or ENSP credential program.

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. Course content may vary with instructor. Satisfies GE Area 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, or multiple weekend field trips in the fall semester, where the natural world becomes our classroom. Prerequisite 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, and properties and origins 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. Prerequisite or corequisites: 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 Are B3 (Specific Emphasis in Natural Sciences). Prerequisites: BIOL 115 or 130A and 130B.

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, 105, 107, 110, or 120; ANTH 201, ENSP 303, ENSP 309, BIOL 310, 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 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; and development of natural resources and 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 102 or 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. Prerequisite: 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. Prerequisite or corequisite: GEOL 303 and GEOL 304.

GEOL 310 GEOPHYSICS (4)

Lecture, 3 hours; laboratory, 3 hours. This course will cover the basic principles 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. Prerequisites: GEOL 303 and 304.

GEOL 312 SEDIMENTARY GEOLOGY FIELD COURSE (1)

Lecture, 1 hour. Field studies done in conjunction with GEOL 311. 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). Prerequisites: GEOL 303, GEOL 304 and MATH 160.

GEOL 318 STRUCTURAL GEOLOGY FIELD (1)

Lecture, 1 hour. Field studies done in conjunction with GEOL 317. Required weekend field trips. Prerequisite or 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. Prerequisites: 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 and GEOL 205 or concurrent enrollment, and consent of instructor.

GEOL 420 INTEGRATIVE FIELD EXPERIENCE (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. Prerequisites: 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. Prerequisites: thesis-advisor consent and 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-level 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. The student must have demonstrated ability to work independently and do quality work. 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. May be repeated for credit.

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)

Application of previously studied theory through supervised instructional work experience in geology, generally as a teaching assistant in geology laboratory classes. Intended for professional growth. May be repeated for up to a total of 4 units. Not applicable for the Geology major or minor. Prerequisites: upper-division standing in Geology and consent of instructor. Student needs to have passed the course that he/she will be a teaching assistant in with a grade of B or better. To be a teaching assistant in GEOL 102 laboratory student needs to have received a grade of B or better in GEOL 303.

German (GER)

GER 101 FIRST 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 Area C3 (Comparative Perspectives and Foreign Languages).

GER 101L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) weekly of practice sessions in the language laboratories and/or online. Cr/NC only. Concurrent enrollment in GER 101 required.

GER 102 SECOND 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 Area C3 (Comparative Perspectives and Foreign Languages). Prerequisite: GER 101 or consent of instructor.

GER 102L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) weekly of practice sessions in the language laboratories and/or online. 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 Area C3 (Comparative Perspectives and Foreign Languages). Prerequisite: GER 102 or consent of instructor.

GER 200L LANGUAGE LABORATORY (1)

A minimum of two academic hours (100 minutes) weekly of practice sessions in the language laboratories and/or online. 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 Area C3 (Comparative Perspectives and Foreign Languages). Prerequisite: GER 102. 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 online. Cr/NC only. Must be taken concurrently with GER 210.

GER 300 ADVANCED GERMAN STUDIES (4)

Prepares students for the Goethe-Certificate B1 proficiency examination (Zertifikat Deutsch). 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, and German reunification. Satisfies GE Area C3 (Comparative Perspectives and/or Foreign Languages). 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 314 LITERATURE AND CULTURE OF THE GERMAN-SPEAKING WORLD (4)

Studies of literature, film, art, and the cultural history of German-speaking countries. Taught in English. Satisfies GE Area C2. Prerequisites: ENGL 101 and GER 102 (the latter for German minors only), or consent of instructor. Requires concurrent enrollment for German minors in GER 399L (not for GE students). May be repeated for credit under different title.

GER 315 GERMAN LANGUAGE AND LITERATURE (1)

Readings and discussion of selected literary works in German. Review of vocabulary and grammar. Includes practice of pronunciation. Students pursuing the minor or special major in German must take this course concurrently with GER 314. Also open to other German students. Prerequisite: GER 102 or consent of instructor.

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 1 to 4 units, depending on the specific tasks performed. Prerequisite: consent of instructor. May be repeated for credit.

GER 490 SENIOR SEMINAR IN AREA STUDIES (4)

GER 495 SPECIAL STUDIES (1-4)

Directed individual study. Prerequisite: consent of instructor. May be repeated for credit.

GER 499 INTERNSHIP (1-4)

Gerontology (GERN)

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 state of development with both positive and negative aspects. Specific issues discussed include: health care, housing, income maintenance, and advocacy. Satisfies GE Area E (The Integrated Person).

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. Cross-listed as SOCI 317. Satisfies GE Area 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 Area D1 (Individual and Society). Cross-listed 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. Cross-listed 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.

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. Cross-listed as PSY 408. Prerequisite: junior-level 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. Cross-listed as PSY 421. Prerequisite: Junior-level standing or instructor permission.

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. Cross-listed as PSY 422. Prerequisite: Junior-level 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. Cross-listed with PSY 438.

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 intern 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. Prerequisites: 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. May be repeated for credit.

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. Cross-listed 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. Cross-listed 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. Prerequisites: 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 intensive 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 Area D1 (Individual and Society).

Prerequisite: a GE Area 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; and Millard Fuller, founder of Habitat for Humanity. Cr/NC only.

GLBL 495 SPECIAL STUDIES (1-4)

Directed individual study. Prerequisite: consent of instructor.

GLBL 496 SENIOR CAPSTONE PRE-SEMINAR (3)

Students develop the methodological skills they need to produce a group research and writing project in the Senior Capstone course. They formulate research questions, conduct literature reviews and evaluate analytical frameworks. Students are also introduced to software and techniques that are specific to the group research and writing process. Fall only. This is a prerequisite for GLBL 498.

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)

Students will produce a qualitative social science research project on a globally-relevant issue. Students will form several groups. Each group will conduct a different research project and produce a group-written capstone paper. Spring only. Prerequisite: GLBL 496.

Hebrew (HEBR)

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)

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 C.E.) 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 Area D2 (World History and Civilization).

HIST 202 DEVELOPMENT OF THE MODERN WORLD (3)

An introduction to modern and contemporary history from 1500 C.E. 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 Area D2 (World History and Civilization).

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 Area D3.

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 Area 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 Area D3 (U.S. History), and the state code requirement in history.

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 Area D3 (U.S. History) and the state code requirement in history.

HIST 305 WARFARE IN THE PRE-MODERN ERA (4)

This course will examine warfare in the ancient and medieval Near East, Mediterranean, and European worlds. Particular emphases will be placed on the development of new military technologies and strategies and their social, economic, and political ramifications. The class will also investigate the consequences of war and its impact on non-combatants.

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 16th 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; and modernization in Brazil. The role of the United States in Latin America and modern Latin American art and literature will also be emphasized.

HIST 345 WOMEN'S HISTORY AND WOMEN'S ACTIVISM (3-4)

This course (originates in WGS) 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. Cross-listed as WGS 365.

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 21st 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. May be repeated for credit with different topic.

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 21st century. Topics include the Social Gospel, pragmatism, socialism, the New Left, feminism, and conservative thought.

HIST 355 AMERICA AT WAR: ORAL HISTORY AND PERFORMANCE (4)

This course examines warfare in modern American history, using the methods of oral history. After reading oral history interviews relating to American military history, the class conducts original interviews and translates those interviews into a performance for the campus community.

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. May be repeated for credit with different topic.

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. May be repeated for credit with different topic.

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. May be repeated for credit with different topic.

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. May be repeated for credit with different topic.

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. May be repeated for credit with different topic.

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. May be repeated for credit with different topic.

HIST 380 TWENTIETH 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 Area D2 (World History and Civilization). Prerequisite: juniors and seniors only.

HIST 381 THE BLACK SEA WORLD, 1500-2000 (4)

A study of the Black Sea region in the early-modern and modern eras. Major themes include Russian expansion into the Pontic-Caspian Steppe, the Crimean Khanate, the incorporation of Georgia and Crimea into the Russian Empire, the fall of the Ottoman Empire and the formation of modern Turkey, Balkan nationalism, and secessionist wars in the Caucasus and Ukraine

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 384 EMPIRES AND COLONIES (4)

A comparative study of empires and their colonies throughout history. Attention will be given to problems in colonial history and decolonization and to how and why imperial history is written.

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 392 STORY AND HISTORY (4)

The relationship between literary narrative and history in late medieval and early modern Italy. Dante's *Inferno*, Boccaccio's *Decameron*, Machiavelli's *Discourses*, and other works as documents of a particular historical time.

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 C.E., 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 402 THE FALL OF THE ROMAN EMPIRE (4)

More than 1500 years after the end of Roman political authority in Western Europe, the so-called 'Fall of Rome' continues to fascinate us. This class will attempt to problematize the 'Fall of Rome' and evaluate the various reasons advanced by scholars, from Edward Gibbon to modern historians, to explain it.

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 407 LOVE, SEX, AND DEATH IN THE PRE-MODERN WORLD (4)

This course will examine love, sex, and the end of life in the pre-modern world with a primary focus on Europe in Late Antiquity and the Middle Ages. Topics include courtship and marriage, prostitution, gender and sexuality, attitudes towards the body, death and the memorialization of the dead.

HIST 408 LATE ANTIQUITY AND THE EARLY MIDDLE AGES IN EUROPE, 300-1000 (4)

In this course, students will examine late antique and early medieval history from the late Roman period to the year 1000. Topics include the end of Roman imperial rule in the west, the advent of the barbarian successor kingdoms, the Byzantine Empire, and the spread of Christianity.

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 18th 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 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, Budapest, 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 9th 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.

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 18th 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 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 18th 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 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, and family in American history; women and 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. May be repeated for credit with different topic.

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 19th century, women's associations, and the various "waves" of women's rights and feminist activism.

HIST 447 QUEER THEORY, QUEER LIVES (4)

This interdisciplinary course (originates in WGS) 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. Cross-listed as WGS 455.

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 20th 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. This course is cross-listed as WGS 449.

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 19th 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 19th and early 20th 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 467 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.) and 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. (Course originates in ENSP.) Prerequisite: juniors, seniors, and graduate students only or consent of instructor. Cross-listed as ENSP 421.

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 19th century through the 20th century. Natural theology, the impact of Darwin, the higher criticism, and culture wars are some of the topics covered in this course.

HIST 476 HISTORY OF SAN FRANCISCO (4)

This course explores the modern history of San Francisco, with particular emphasis on the period from the late 19th century to the present, covering the city's political, economic, cultural, and social evolution.

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)

This course considers the history of Judaism and Christianity to the Council of Nicaea in 325 CE. Topics include: the diversity of ancient Judaism, the emergence of early Christianity; the rise of Rabbinic Judaism and the organized Church; and the Jewish-Christian debate in the first centuries after the death of Jesus.

HIST 483 JEWS IN THE MEDIEVAL WORLD, 300-1500 (4)

This class will examine the Jewish historical experience in the Middle Ages. Themes include migration and diaspora, acculturation, family and intellectual life, persecution and inquisition. We will also consider the social and religious foundations of Christian and Muslim understandings of Jews and Judaism and how and why these attitudes changed.

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. May be repeated for credit.

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 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. Course open to juniors and seniors and graduate students only. May be repeated for credit.

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. Cr/NC

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. Prerequisites: 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. Prerequisites: 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. Prerequisites: classified graduate standing in the history thesis option for the M.A. and an authorized Advancement to Candidacy form.

Human Development (HD)

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 Area E (The Integrated Person). Prerequisite: Completion of GE Area B2 and open to Human Development with upper division standing, or consent of instructor.

HD 325 TOPICS IN HUMAN DEVELOPMENT: CHILDHOOD AND ADOLESCENCE (3-4)

This seminar deals with current topics in the development of humans during childhood and adolescence. Topics vary with each offering. May be repeated for credit if topic differs. Possible topics include: child growth and development; adolescent development; brain and behavioral development; children with special needs; and diversity in early childcare and education. Open to upper-division Human Development majors only.

HD 335 TOPICS IN HUMAN DEVELOPMENT: ADULTHOOD AND LIFESPAN (3-4)

This seminar deals with current topics in the development of humans during adulthood or across the lifespan. Topics vary with each offering. May be repeated for credit if topic differs. Possible topics include: evolution of human life history traits; theories of lifespan development; family dynamics and aging; issues of adulthood and aging; and aging: social and health policy issues. Open to upper-division Human Development majors only.

HD 350 TOPICS IN HUMAN DEVELOPMENT (3-4)

A seminar dealing with current topics in human development. Topics vary with each offering. May be repeated for credit if topic differs. Possible topics include: autism across the lifespan; child, adolescent, and adult development in socio-cultural context; human difference across the lifespan; language and learning; culturally-shaped conceptions of childhood and development; interventions in human development. Open to upper-division Human Development majors only.

HD 365 TOPICS IN HUMAN DEVELOPMENT: GENDER AND SEXUALITY (3-4)

This seminar deals with current topics in gender and sexuality across the lifespan. Topics vary with each offering. May be repeated for credit if topic differs. Possible topics include: sex in adulthood and old age; sex, gender and development; gendered relations; and gender, sexuality and popular culture. Open to upper-division Human Development majors only.

HD 375 TOPICS IN HUMAN DEVELOPMENT: SOCIETY, CULTURE AND LANGUAGE (3-4)

This seminar deals with current topics of human development in social, cultural and linguistic perspectives. Topics vary with each offering. May be repeated for credit if topic differs. Possible topics include: schooling in cultural context; language acquisition; rituals and celebrations; communication disorders in children and adults; language development; sociocultural foundations of human development; and language, society and development. Open to upper-division Human Development majors only.

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 only. Prerequisites: admission to the Human Development major, junior-level standing. Grade only.

HD 450 RESEARCH METHODS IN HUMAN DEVELOPMENT (4)

This course addresses the scientific concepts and principles central to the study of human behavior and development. Students will learn about basic research methods in studying human behavior in developmental context. Major themes include: goals of developmental research, fundamental research designs, types of measurement, elements of good scientific writing, and ethical issues in the study of human development. Prerequisites: upper-division Human Development majors only.

HD 490 SENIOR PROJECT (1)

A senior capstone course devoted to senior projects required of Human Development students. Open to Human Development students only. Prerequisites: admission to the Human Development major, senior standing, 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 majors with a minimum 3.0 GPA and consent of instructor.

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. Prerequisites: upper division Human Development majors and consent of instructor. CR/NC only.

Humanities (HUM)

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 Area A1 (Written and Oral Analysis). Prerequisites: completion of GE Areas A2 and A3.

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)

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. This course fulfills GE Area C1 (Fine Arts, Theatre, Dance, Music, Film) and A2 (Fundamentals of Communication).

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. This course fulfills GE Areas B2 (Biological Sciences), D3 (United States History) and E (The Integrated Person).

LIBS 160A HUMANITIES LEARNING COMMUNITY (4)

LIBS 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

LIBS 160B HUMANITIES LEARNING COMMUNITY (4)

LIBS 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

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. This course fulfills GE Areas A3 (Critical Thinking), B1 (Physical Sciences), C2 (Literature, Philosophies, Values) and D1 (Individual and Society).

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. This course fulfills GE Areas A1 (Written & Oral Analysis), B3 w/lab (Specific Emphasis), C3 (Comparative Perspectives and/or Foreign Languages), D4 (U.S. Constitution & California State & Local Government), D5 (Contemporary International Perspectives) and Ethic Studies.

LIBS 204 MINORITIES IN AMERICAN CINEMA (4)

This course is designed to examine the fundamental beliefs, assumptions, and “self-evident” truths that serve as the foundation for American culture, and then to consider those truths in light of challenges provided by multicultural perspectives. Our primary focus will be the representations of racial minorities in American cinema from the beginning of the 20th century up to the present day. Applying an interdisciplinary and multicultural approach, we will investigate the depictions of race, racial identity, and interracial relationships in both mainstream (Hollywood) and alternative cinemas. We will supplement our inquiry through related works of literature and drama, in addition to readings in film theory, film history, and critical cultural studies. Thus, even as we consider the historical truths of American culture, these “truths” will be consistently interrogated and reformulated by examining the representations of minority figures and groups in American cinema. This course fulfills GE Area C1 (Fine Arts, Theatre, Dance, Music, Film) and Ethnic Studies.

LIBS 205 TOPICS IN AMERICAN CULTURE (4)

This course introduces students to important themes in American culture, literature, ethics, and values past and present, using the tools of interdisciplinary inquiry. We will explore a diverse range of textual representations and perspectives and integrate diverse disciplinary approaches together in order to reach a broad-based, humanistic understanding of the subject. Topics vary by instructor. This course fulfills GE area C2 (Literature, Philosophy and Values).

LIBS 208 PRACTICES OF CULTURE (4)

This course surveys practices of culture through film and/or the visual arts, raising critical questions regarding the intersections of socio-cultural practices and the creative arts in a variety of geographical settings. Topics include artistic and documentary representations of self and other, global politics, popular cultures, and cross-cultural challenges. This course fulfills GE area C1 (Fine Arts, Theatre, Music, Dance, and Film).

LIBS 209 BOLLYWOOD AND GLOBALIZATION (4)

This course will examine some of the major social and economic changes that have occurred in India since the period of liberalization (1990s), and assess the ensuing representations of these shifts in contemporary Bollywood and Bollywood-inspired films. This course fulfills GE area C1 (Fine Arts, Theatre, Dance, Music, Film).

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 204, 205, or 304 (fall) or LIBS 208, 209 or 308 (spring) in the first semester of upper-division study. Students must earn a grade of C or higher to continue in Hutchins.

LIBS 304 WE HOLD THESE TRUTHS (2)

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 or LIBS 202 prior. May be repeated for credit.

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 or LIBS 202 prior. May be repeated for credit.

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 or LIBS 202 prior. May be repeated for credit.

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. This course fulfills GE Area E (The Integrated Person). Prerequisite: LIBS 302 or LIBS 202 prior. May be repeated for credit.

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. Course may be repeated for credit. Topics can only be repeated with permission.

LIBS 337 SPECIAL LITERARY PROJECT (2)

Faculty proposed special projects. For students working on faculty-initiated research projects.

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. This course is repeatable.

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. This course may be repeated for credit.

LIBS 360 SPECIAL TOPIC WORKSHOPS (1-2)

Topics will vary from semester to semester. 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 390 INDEPENDENT FILM STUDY (1-2)

In this course students will attend Sonoma Film Institute screenings or other film-related lectures or events, and will submit a written film analysis following each film screening. Students must consult with their advisor to enroll in this course. Pre or corequisite: LIBS 320C "Intro to Film Studies/Film Theory and Narrative." This course is repeatable for a maximum of 4 units of course credit. Cross-listed with AMCS 390.

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 the 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 as elective units in the Hutchins major. Cr/NC only.

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 and 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, and 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. Course may be repeated for credit.

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 Track 1 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. May be repeated for credit.

LIBS 595 SPECIAL STUDIES (1-4)

Individualized studies in areas beyond the scope of the established curriculum.

Interdisciplinary Studies (ITDS)

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 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 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. Prerequisites: 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 495 SPECIAL STUDIES (1-4)

Prerequisite: approved status as a special major or major in interdisciplinary studies.

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. May be repeated for credit.

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 M.A. 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)

JWST 200 INTRODUCTION TO JEWISH STUDIES (4)

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 identity as Jews. The course will also provide a historical overview of the Jewish Diaspora, from the Middle East to Africa to Europe to the Americas. The readings and class discussions will divide into three parts covering the ancient, medieval, and modern periods. GE Area C2.

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 255 EVOLUTION OF ANTI-SEMITISM: THROUGH HISTORY, LITERATURE, RELIGION AND ART (4)

This course will introduce the origins and background of anti-Semitism and the Jewish response over the last two-and-a-half millennia. It has been referred to as "the longest hatred." The long history of anti-Semitism can serve as a case study of and cautionary tale for how societies deal with xenophobia, bias and prejudice toward "the other." GE Area C3.

JWST 341 TOPICS IN JEWISH HISTORY: JUDAISM AND CHRISTIANITY OF THE GRECO-ROMAN PERIOD (4)

Course will explore various topics in Jewish History. Content will vary per semester. Topics may include: History of Anti-Semitism, History of Judaism and Christianity, and Jewish World Cultural History.

JWST 350 JEWISH RELIGION AND BIBLICAL VALUES (3)

This course explores the ideas — religious and political — and texts that have shaped Jewish thought and practice from its formation to the present.

Kinesiology (KIN)

KIN 101 PHYSICAL EDUCATION ACTIVITIES (1-2)

Activities classes. Classes are conducted in the following activities: aquatics (e.g., swimming, physical conditioning swimming, water polo, and scuba), individual sports (e.g., adapted activities, martial arts, tennis, indoor rock climbing), fitness (e.g., aerobics, conditioning, pilates, jogging/running and weight training), dance (e.g., recreational dance, yoga), outdoor activities, or team sports (e.g., 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 3 times for credit up to 8 units. 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. Prerequisite: class open to Kinesiology majors only.

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. Course restricted to freshmen and sophomore students only.

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. Course may be repeated for credit.

KIN 240 FIRST AID AND CPR (1)

Study of the basic principles and practical applications of first aid and CPR techniques required by a first-aider to provide initial emergency care necessary to sustain life and minimize any consequences of injuries or sudden illness until qualified medical personnel can arrive.

KIN 241 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. Prerequisite: Kinesiology majors, BIOL 220 and BIOL 224.

KIN 242 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. Prerequisites: Kinesiology majors, BIOL 220, and BIOL 224.

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. Prerequisites: Kinesiology majors, BIOL 220 and BIOL 224 and Junior standing, and consent of instructor for non-Kinesiology 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 and sport and exercise psychology theories on such topics as learning, motivation, goal setting, stress, anxiety, group dynamics, leadership, moral development, and exercise adherence. Prerequisites: Kinesiology majors, BIOL 220 and BIOL 224, upper-division standing, and consent of instructor for non-Kinesiology majors.

KIN 306 AQUATICS (1-2)

Lecture; activity laboratory. The aquatics course is designed to provide students in the pedagogy concentration 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 aquatics.

KIN 308 EDUCATIONAL GYMNASTICS (1)

Lecture; activity laboratory. The educational gymnastics course is designed to provide students in the pedagogy concentration 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 educational gymnastics.

KIN 309 RHYTHMS AND DANCE (1)

Lecture; activity laboratory. The rhythms and dance course is designed to provide students in the pedagogy concentration 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 rhythms and dance.

KIN 310 SELF DEFENSE (1)

Lecture; activity laboratory. The self defense course is designed to provide students in the pedagogy concentration 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 self defense.

KIN 311 SELECTED TOPICS (1-4)

Selected upper-division courses that are taught on a one-time basis. May be repeated for credit.

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: Kinesiology Majors, BIOL 220 and BIOL 224, ENGL 101 or 100B, Junior Standing, and consent of instructor for non-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. Satisfies GE Area E. Prerequisite: junior- or senior-standing or consent of instructor.

KIN 320 CURRICULUM AND ASSESSMENT (3)

This course is designed to explore different curriculum and teaching models and assessment techniques used in standards-based physical education. Effective standards-based curriculum development and assessment will be discussed and opportunities given for students to put these into practice. Prerequisites: KIN 308 and 309 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. Open to junior, senior, and graduate students only.

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: Kinesiology majors, BIOL 220, BIOL 224, GE (B4) math, and Junior Standing. Consent of instructor for non-Kinesiology majors required.

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: Kinesiology majors, GE math, Biol 220 and 224, and upper-division standing.

KIN 371 INTERCOLLEGIATE BASEBALL, MEN (1-2)

Participation on intercollegiate baseball, men. May be repeated for credit.

KIN 372 INTERCOLLEGIATE BASKETBALL, MEN (1-2)

Participation on intercollegiate Basketball men. May be repeated for credit.

KIN 373 INTERCOLLEGIATE CROSS COUNTRY, MEN (2)

Activities include: soccer, tennis, basketball, cross country, 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 (1-2)

Participation on intercollegiate Soccer, men. May be repeated for credit.

KIN 376 INTERCOLLEGIATE TENNIS, MEN (1-2)

Participation on intercollegiate tennis, men. May be repeated for credit.

KIN 377 INTERCOLLEGIATE TRACK AND FIELD, WOMEN (1-2)

Participation on Intercollegiate Track and Field, women. May be repeated for credit.

KIN 378 INTERCOLLEGIATE GOLF MEN (1-2)

Participation on intercollegiate golf, men. May be repeated for credit.

KIN 381 INTERCOLLEGIATE BASKETBALL, WOMEN (1-2)

Participation on intercollegiate Basketball, women. May be repeated for credit.

KIN 382 INTERCOLLEGIATE CROSS COUNTRY, WOMEN (1-2)

Participation on intercollegiate Cross Country, women. May be repeated for credit.

KIN 383 INTERCOLLEGIATE SOCCER, WOMEN (1-2)

Participation on intercollegiate Soccer, women. May be repeated for credit.

KIN 384 INTERCOLLEGIATE SOFTBALL, WOMEN (1-2)

Participation on intercollegiate softball, women. May be repeated for credit.

KIN 385 INTERCOLLEGIATE TENNIS, WOMEN (1-2)

Participation on intercollegiate tennis, women. May be repeated for credit.

KIN 386 INTERCOLLEGIATE GOLF, WOMEN (1-2)

Participation on intercollegiate golf, women. May be repeated for credit.

KIN 387 INTERCOLLEGIATE VOLLEYBALL, WOMEN (1-2)

Participation on intercollegiate Volleyball, women. May be repeated for credit.

KIN 388 INTERCOLLEGIATE WOMEN WATER POLO (1-2)

Participation on intercollegiate women's water polo. 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. Course may be repeated for credit.

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 Kinesiology majors or multiple-subject credential preparation candidates or by consent of instructor.

KIN 403 ETHICS, INCLUSION, AND EQUITY IN COACHING (3)

This course educates future coaches on the moral and ethical dilemmas typically encountered in competitive athletics. Students will also develop strategies to address various forms of exclusion and inequity in sports and athletics. Prerequisite: upper-division standing.

KIN 404 THEORY OF COACHING (2)

A survey of issues encountered by coaches in all sports. Topics will include, but are not 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: Kinesiology majors, ENGL 101, upper-division standing, and consent of instructor for non-Kinesiology majors.

KIN 404C THEORY OF COACHING (3)

A survey of issues encountered by coaches in all sports. Topics will include, but are not 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: Kinesiology majors, 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. Prerequisite: upper-division standing.

KIN 420 MIDDLE SCHOOL PHYSICAL EDUCATION (3)

This course provides students with theory and practice designed to develop the skills necessary to be an effective middle school physical education teacher. Students are asked to put into practice their knowledge of standards-based physical education and developmentally appropriate teaching methods. Prerequisites: KIN 308, KIN 309, KIN 320 (may be taken concurrently), & KIN 400 or consent of instructor.

KIN 422 HIGH SCHOOL PHYSICAL EDUCATION (4)

Lecture, 3 hours; laboratory, 2 hours. This course will provide students with theory and practice designed to develop the skills necessary to be an effective high school physical education teacher. Students will be asked to apply previous learned concepts related to standards-based physical education at the high school level. Students will be involved in field observations, micro teaching, and lab experiences involving high school physical education students. Prerequisites: KIN 308, 309, 320, 400, and 420, or consent of instructor.

KIN 425 SEMINAR IN ADAPTED PHYSICAL EDUCATION (3)

Exploration and discussion of current research and professional issues in the field of adapted physical activity. Prerequisite: KIN 325 or consent of instructor.

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 410 and MATH 165 or consent of instructor.

KIN 427 INDIVIDUALS WITH DISABILITIES IN EDUCATIONAL AND RECREATIONAL SETTINGS (3)

Exploration of the role of psychosocial context in the design and implementation of effective learning environments for youth and adults with disabilities, using service-learning pedagogy. Class open to juniors, seniors, and graduate students only.

KIN 430A FIELD EXPERIENCE IN PHYSICAL EDUCATION (1-3)

Provides upper-division Kinesiology majors experiences in teaching in K-12 public or private school settings. Course requirements include a work journal, development of a personal portfolio, and verification of completion by immediate supervisor. Prerequisites: Kinesiology majors, upper-division standing, and a C average in major and support courses. May be repeated for credit.

KIN 430B FIELD EXPERIENCE IN INTERDISCIPLINARY STUDIES (1-3)

Provides qualified upper-division students experience in an area related to their interdisciplinary concentration. Course requirements include the development of a personal portfolio, a log of completed hours, a daily journal describing experiences and duties, 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 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. May be repeated for credit.

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. May be repeated for credit.

KIN 430E FIELD EXPERIENCE IN LIFETIME FITNESS (1-3)

Provide qualified upper-division students an opportunity to gain experience in 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. May be repeated for credit.

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: Kinesiology majors and KIN 242, BIOL 220, and BIOL 224 required.

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 major coursework in biomechanics, exercise physiology, and conditioning for performance and health. Students will be involved in group-centered instruction, field observation, laboratory experiences, and skill execution practicals.

Prerequisites: Kinesiology majors, BIOL 220, and BIOL 224 required.

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. Prerequisites: KIN 360, BIOL 220, BIOL 224 required.

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 Physical Education, 495D Special Studies in Exercise Science, and 495E Special Studies in Lifetime Fitness. May be repeated for credit.

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 Physical Education, 495D Special Studies in Exercise Science; and 495E Special Studies in Lifetime Fitness. May be repeated for credit.

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 Physical Education, 495D Special Studies in Exercise Science, and 495E Special Studies in Lifetime Fitness. May be repeated for credit.

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 Physical Education, 495D Special Studies in Exercise Science, and 495E Special Studies in Lifetime Fitness. May be repeated for credit.

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. Prerequisites: a course in descriptive statistics, an introductory computer course, and graduate standing, or consent of instructor.

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 groups over the lifespan. Prerequisites: KIN 305 and KIN 315 or equivalents, or consent of instructor.

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, or consent of instructor.

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, and examination of curricula models, leading to the design of an innovative physical education curriculum plan. Prerequisite: KIN 520 Pedagogical Methods or its equivalent or consent of instructor.

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, or consent of instructor.

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/Adapted Physical Education or consent of instructor.

KIN 550 SEMINAR IN BIOMECHANICS (2)

This course uses topical published research articles to discuss the qualitative 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, or consent of instructor.

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, exercise in extreme environmental conditions, and commonly used ergogenic aids. Prerequisite: KIN 360 or equivalent, or consent of instructor.

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. Prerequisites: 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. Prerequisites: KIN 590 and an authorized Advancement to Candidacy form.

Linguistics (LING)

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 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. Prerequisites: 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 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.

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. Prerequisites: graduate standing and consent of instructor.

Mathematics (MATH)

MATH 035 ELEMENTARY ALGEBRA (4)

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 (4)

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 the Area B4 GE requirement for mathematics. 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 the GE Area B4 requirement for mathematics. 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 the GE Area B4 requirement for mathematics. Prerequisite: satisfaction of ELM requirement.

MATH 111 SYMMETRY IN THE ARTS AND SCIENCES (3)

This class explores the symmetries that exist in art as well as the natural world around us, and how symmetry can be described in terms of mathematics. 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 the GE Area B4 requirement for mathematics. 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 the GE Area B4 requirement for mathematics. 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 Area B4 requirement for mathematics. 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. Prerequisite: MATH 160, 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.

MATH 150 MODERN GEOMETRY (3)

A study of Euclidean geometry. It will cover topics such as compass and straightedge constructions, proofs, parallel and perpendicular lines, triangles, circles, polygons, measurement, solids, transformations, tessellations, and the use of geometry software. Satisfies the GE Area B4 requirement for mathematics. Prerequisite: satisfaction of ELM requirement.

MATH 160 PRECALCULUS MATHEMATICS (4)

Covers a brief review of college algebra; functional notation, composition, and decomposition of functions and inverse functions; behavior of families of functions such as polynomial, rational, exponential, and logarithmic; trigonometric functions, equations, and identities and some mathematical modeling. Emphasis on problem solving. Satisfies the GE Area B4 requirement for mathematics. Prerequisite: satisfaction of ELM requirement.

MATH 160W PRECALCULUS (1)

A workshop designed to be taken with MATH 160. Exploration of precalculus concepts through problem solving in a group setting. Cr/NC only. Corequisite: MATH 160.

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 Area B4 requirement for mathematics. Prerequisite: Precalculus mastery.

MATH 161W CALCULUS I WORKSHOP (1)

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 161X DIFFERENTIAL AND INTEGRAL CALCULUS 1 EXTENDED (6)

A 6-unit version of Math 161 for students who feel that they need to refresh their algebra skills. Satisfies the GE Area B4 requirement for mathematics. Prerequisite: Satisfaction of ELM requirement.

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 Area B4 requirement for mathematics. Prerequisite: satisfaction of ELM requirement.

MATH 165X ELEMENTARY APPLIED STATISTICS EXTENDED (6)

A 6-unit version of Math 165 for first-time freshmen with an ELM score of 44, 46 or 48. Students who pass this class will receive credit for Math 165 and will also satisfy their developmental mathematics requirement, without taking Math 45. Satisfies the GE Area B4 requirement for mathematics. Prerequisite: A score of 44, 46, or 48 on the ELM and first-time freshman status. The course will not be open to students who have satisfied the 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: Grade of C or better in MATH 161 or 161X or consent of instructor.

MATH 185 SELECTED TOPICS IN MATH (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: Grade of C or better in 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. Prerequisites: 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: Grade of C or better in MATH 161 or 161X or consent of instructor.

MATH 211S CALCULUS II-S (2)

First half of MATH 211. Prerequisites: Grade of C or better in MATH 161 or 161X 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 (1)

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 REASONING AND PROOF (4)

This course will teach students to analyze and evaluate scientific and rhetorical reasoning, with emphasis on the reasoning used in Mathematical proofs. Students will identify and evaluate unstated assumptions in statistical tables and charts from real-world media, submit coherent and original proofs of theorems, and develop verbal and non-verbal skills for making persuasive oral arguments and presentations on mathematical topics. Satisfies GE area A3. Prerequisite: Grade of C or better in (MATH 161 or 161X and a Math/Stats course numbered 200 or above) or CS 242, or consent of instructor. Not repeatable for credit.

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: Grade of C or better in MATH 160 or consent of instructor.

MATH 241 LINEAR ALGEBRA WITH APPLICATIONS IN DIFFERENTIAL EQUATIONS (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: Grade of C or better in MATH 211 or equivalent, or consent of instructor. Not repeatable for credit.

MATH 250 PROBABILITY AND STATISTICS FOR FUTURE TEACHERS (2)

A study of elementary probability and statistics and their real-world contexts. Topics include the binomial distribution, conditional probability, expected value, data collection and sampling, measures of location and variability, estimation and simple hypothesis testing. The course is designed for teachers and may not be substituted for MATH 165. Prerequisite: Grade of C or better in Math 300B or Math 161 or Math 161X or consent of instructor. Not repeatable for credit.

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: Grade of C or better in MATH 241 or equivalent, or 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: Grade of C or better in MATH 165 or 165X 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. 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: Grade of C or better in any course that meets GE Area B4 (Mathematical Concepts and Quantitative Reasoning).

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: Grade of C or better in 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: Grade of C or better in MATH 161 or 161X or equivalent, or consent of instructor.

MATH 306 NUMBER THEORY (4)

Topics include mathematical induction, Euclidean algorithm, congruences, primes, fundamental theorem of arithmetic, Fermat's little theorem, Euler's theorem, primitive roots, quadratic reciprocity, and polynomials over the real numbers. Additional topics may include Pythagorean triples, the Goldbach conjecture, perfect numbers, amicable numbers, Chinese remainder theorem, Fibonacci numbers, cryptography, prime number theorem, Möbius inversion. Prerequisite: Grade of C or better in MATH 220 or MATH 142 or CS 242. Not repeatable for credit.

MATH 308 COLLEGE GEOMETRY (4)

Topics include neutral geometry, plane and solid Euclidean geometry, isometries in the Euclidean plane (transformational geometry), and hyperbolic geometry. Additional topics may include the Hilbert postulates, construction of geometries from fields, and projective geometry. Prerequisite: Grade of C or better in MATH 220 or MATH 142 or CS 242. Not repeatable for credit.

MATH 310 HISTORY OF MATHEMATICS (4)

Mathematics from ancient times to the present. The student learns how to solve problems of the past using only the tools of the past. Students will complete a major project using adaptations of historical sources to link the history of mathematics to the teaching of mathematics. Prerequisite: Grade of C or better in MATH 161 or 161X or consent of instructor. Not repeatable for credit.

MATH 316 GRAPH THEORY AND COMBINATORICS (4)

A study of combinatorics, probability, and graph theory. Topics will include the elements of set theory, counting techniques such as permutations and combinations, discrete probability, Hamiltonian and Eulerian properties of graphs, graph isomorphism, coloring and planarity. Additional topics may include the pigeonhole principle, the inclusion-exclusion principle, generating functions, partitions and recurrence relations, Polya's theorem, matching, and trees, with applications in many disciplines. Students may not earn credit for both Math 316 and Math 416. Prerequisite: Grade of C or better in Math 142 or Math 220 or CS 242 or consent of instructor. Not repeatable for credit.

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: Grade of C or better in MATH 220 or consent of instructor.

MATH 322 LINEAR ALGEBRA (4)

Topics include vector spaces, linear transformations, matrices, linear equations, determinants, diagonalization, inner product spaces, and additional topics such as the Cayley-Hamilton Theorem, Singular Value Decomposition, or Canonical Forms. Prerequisite: Grade of C or better in MATH 220 and (MATH 241 or MATH 222) or consent of instructor. Not repeatable for credit.

MATH 330 TECHNIQUES OF PROBLEM SOLVING (1)

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: Grade of C or better in MATH 161 or 161X 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: Grade of C or better in MATH 220 and (MATH 241 or 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. Prerequisites: Grade of C or better in MATH 211 and one of the following: MATH 142, MATH 200, or MATH 220, or consent of instructor.

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, and sampling distribution of estimators. Prerequisite: Grade of C or better in MATH 261; can be taken concurrently, or consent of instructor.

MATH 345E PROBABILITY THEORY FOR ENGINEERING (2)

Lecture, 2 hours. This is a two-unit one-half semester introduction to probability theory for Engineering students. Topics covered include basic set theory, probability, combinatorics, discrete and continuous random variables, probability distribution and density functions, first and second moments, and functions of random variables. Prerequisite: Math 211 or consent of instructor.

MATH 352 NUMERICAL ANALYSIS (4)

Selected numerical and iterative processes for solving mathematical problems and their applications. Topics include finding roots with bisection and Newton's method; solving systems of linear equations using LU decomposition and Gauss-Seidel methods; polynomial approximation using Taylor's Theorem, Lagrange interpolations, and the theory of spline functions; numerical integration using Simpson's rule and Gaussian integration; numerical solutions to ODEs using Euler's and modified Euler's method. Prerequisites: Grade of C or better in MATH 241 (may take concurrently), MATH 180 or CS 115, or consent of instructor. Not repeatable for credit.

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 at Grade of C or better in so 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 requirements. 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: Grade of C or better in 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: Grade of C or better in MATH 161 or 161X 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. Prerequisites: requires previous or concurrent enrollment in an upper-division mathematics course and consent of instructor. Cr/NC only.

MATH 416 GRAPH THEORY AND COMBINATORICS (4)

A study of combinatorics, probability, and graph theory. 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: Grade of C or better in Math 142 or Math 220 or CS 242 consent of instructor. Not repeatable for credit.

MATH 418 TOPOLOGY (4)

Topics include definition of a topology, open & closed sets, continuous mappings, subspaces, bases and subbases of a topology, compact topological spaces, separation axioms, connected, path connected, normal spaces, regular spaces, metric spaces, product spaces, and quotient spaces. Will also include homotopy, the fundamental group, and covering spaces as time permits. Theorems include the Urysohn lemma, Tietze Extension Theorem, and the Tychonoff Theorem. Prerequisite: Grade of C or better in MATH 340 or consent of instructor. MATH 320 is recommended. Not repeatable for credit.

MATH 420 MODERN ALGEBRA II (4)

A continuation of MATH 320. Advanced topics in the theory of groups, rings, and fields. Depth in Algebra at a level expected of entering graduate students. Coverage will include topics such as the direct product of groups, finite Abelian groups, Sylow Theorems, unique factorization domains, field extensions, and Galois Theory. Prerequisites: Grade of C or better in Math 320 or equivalent. Not repeatable for credit.

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: Grade of C or better in one semester of differential equations (such as MATH 241), or consent of instructor. Cross-listed as ES 400 and CES 400.

MATH 431 APPLIED PARTIAL DIFFERENTIAL EQUATIONS (4)

Topics covered in this course will include Introduction and Classification of PDEs, Mathematical models in physics and engineering, Theory and solution of quasi-linear first-order PDEs, Power series solutions of an ODE, The Sturm separation theorem for second-order linear equations, Second-order linear and nonlinear PDEs including applications, Fourier series, boundary-value problems, Fourier and Laplace transforms, numerical methods and solutions, and approximation of solutions using the finite-difference method. Prerequisites: Grade of C or better in Math 241 and (Math 180 or CS 115), or consent of instructor. Not repeatable for credit.

MATH 440 REAL ANALYSIS II (4)

Topics include sequences and series of functions, pointwise versus uniform convergence, power and Taylor series, Lebesgue measure, Lebesgue measurable functions and the Lebesgue integral. Additional topics may include the Weierstrass approximation theorem, orthogonal functions, Fourier series, square-integrable functions, sigma algebras of subsets, and general measure spaces. Prerequisite: Grade of C or better in Math 340 or consent of instructor. Not repeatable for credit.

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, and mathematical modeling of industrial problems. Prerequisites: Grade of C or better in 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: Grade of C or better in MATH 345 or consent of instructor.

MATH 460 COMPLEX ANALYSIS (4)

Topics will include the complex field, functions, limits, continuity, differentiation, the Cauchy-Riemann equations, conformal mappings, path integration, Cauchy's Integral Theorem and Integral Formulas, the Liouville Theorems, the Laurent Expansion, singularities, poles, residues, contour integration. Additional topics may include topics such as Mittag-Leffler's Partial-fractions Theorem, and Riemann surfaces. Prerequisite: Grade of C or better in MATH 340 or consent of instructor. Not repeatable for credit.

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: Grade of C or better in MATH 265 and either MATH 241 or another course in linear algebra, and MATH 345 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: Grade of C or better in MATH 367 or consent of instructor.

MATH 470 MATHEMATICAL AND STATISTICAL MODELING (4)

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, discrete vs continuous, and deductive vs statistical models. Applications to biology, physics, chemistry, geology, social science and environmental sciences. Prerequisite: Grade of C or better in MATH 211 or consent of instructor. Not repeatable for credit.

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 multivariable analysis, calculus of variations, convex geometry, differentiable manifolds, graph theory, Galois theory, algebraic topology, and 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. Prerequisite: senior-level standing or consent of instructor.

MATH 495 SPECIAL STUDIES (1-4)

Prerequisites: a lower-division math course and consent of instructor. May be repeated for credit.

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. 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.

Modern Languages and Literatures (MLL)

MLL 101 SPECIAL TOPICS IN FOREIGN LANGUAGE (1-4)

MLL 102 SPECIAL TOPICS IN FOREIGN LANGUAGE (1-4)

MLL 160A HUMANITIES LEARNING COMMUNITY (4)

MLL 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

MLL 160B HUMANITIES LEARNING COMMUNITY (4)

MLL 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

MLL 161A CRITICAL & CREATIVE: GLOBAL CULTURE ReMix (2)

MLL 161 A/B is a year long course, which, combined with FR 101, GER 101, or SPAN 201, features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE categories.

MLL 161B CRITICAL & CREATIVE: GLOBAL CULTURE ReMix (2)

MLL 161 A/B is a year long course, which, combined with FR 101, GER 101, or SPAN 201, features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

MLL 195 ELEMENTARY SPECIAL STUDIES (1-4)

Directed, individual, lower-division study in a modern language.

MLL 214 WORLD LITERATURES IN ENGLISH (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 Area C2 (Literatures, Philosophies, and Values). Prerequisite: ENGL 101. May be repeated for credit.

MLL 273 WORLD LITERATURES: CRITICAL AND CREATIVE READINGS (4)

This course explores world literature and its relationship to the history, culture, and society from which it originates. Topics may include western and non-western cultural and religious values, colonialism versus emerging nationalisms, and the quest for personal, cultural, and national identities. Techniques of reading, analysis, research and creativity will be emphasized. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: completion of GE Category A2 (Engl 101 or ENGL 100B) required.

MLL 314 WORLD LITERATURES IN ENGLISH TRANSLATION (4)

Studies in world literatures in English translation. Topics may include non-western cultural and religious values, colonialism versus emerging nationalisms, and the quest for identity, personal, cultural, and national. Satisfies GE Area C2 (Literatures, Philosophies, and Values). Prerequisite: ENGL 101. May be repeated for credit.

MLL 450 FOREIGN LANGUAGE TEACHING SEMINAR (2-4)

This course is designed as a seminar and Practicum to teach students to facilitate intensive language learning in a small-group setting. Students study the theory and practice of language learning and teaching while serving as a Peer Language Facilitator (PLF) for language learners enrolled in lower division classes. Prerequisite: instructor consent.

MLL 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. May be repeated once for credit for a total of 4 units.

Music (MUS)

MUS 101 INTRODUCTION TO MUSIC (3-4)

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 Area C3 (Comparative Perspectives and/or Foreign Languages).

MUS 105 MUSIC THEORY FOR NON-MAJORS (4)

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, and the use of music notation software. Not open to Music majors. Satisfies GE Area 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 and minors; open to non-majors only with consent of instructor.

MUS 109 INTENSIVE KEYBOARD LAB I (2)

Beginning class piano studies for Music Majors. Prerequisites: open to Music majors and minors only 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, and 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 and individual explorations of the fundamental techniques of singing. Develop strategies to address tone production, breath control, diction, repertory, and interpretation. Music Education students learn basic vocal pedagogy. Offered for upper-division credit as MUS 415 with additional course requirements. May be repeated for credit with consent of instructor.

MUS 118 GUITAR METHODS (1)

An exploration of basic performance techniques, and pedagogy and teaching strategies for guitar. Offered for upper-division credit as MUS 418. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

MUS 120 MUSICIANSHIP I (2)

Development of sight-singing and dictation skills using pentatonic and diatonic materials. Techniques include moveable-do solfa, drills in intervals, triads, and dictation, augmented by computer software and group work. Also emphasizes development of broad listening skills, using examples of great works based upon simple diatonic melodies. Prerequisite: MUS 106 or equivalent.

MUS 122 STRINGS METHODS I (VIOLIN/VIOLA) (1)

An exploration of basic performance techniques, instrumental pedagogy and teaching strategies associated with teaching violin and viola in the public schools. Prerequisite: MUS 106 or the equivalent and/or consent of the Instructor and Director of Music Education. May be repeated for credit with consent of instructor.

MUS 123 WOODWINDS METHODS I (CLARINET/SAXOPHONE) (1)

An exploration of basic performance techniques, instrumental pedagogy and teaching strategies associated with teaching clarinet and saxophone in the public schools. Prerequisite: MUS 106 or the equivalent and/or consent of the Instructor and Director of Music Education. May be repeated for credit with consent of instructor.

MUS 124 BRASS METHODS I (TRUMPET/TROMBONE) (1)

An exploration of basic performance techniques, instrumental pedagogy and teaching strategies associated with teaching trumpet and trombone in the public schools. Prerequisite: MUS 106 or the equivalent and/or consent of the Instructor and Director of Music Education. May be repeated for credit with consent of instructor.

MUS 129 PERCUSSION METHODS (1)

An exploration of basic performance techniques, and pedagogy and teaching strategies associated with standard percussion instruments. Offered for upper-division credit as MUS 429. 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. Advanced individual study of voice. 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 149 REHEARSAL OBSERVATION SERIES (1)

The Rehearsal Observation Series is a Credit / No Credit course, which brings students to the forefront of the music making process. It corroborates the "doing/experiencing" philosophy of the music department, linking that directly to curriculum. It helps non-musicians particularly understand how this mystery that is music actually works. Rehearsal observations occur on a regular basis. Attendance is mandatory and a required Rehearsal Observation Form is submitted after each rehearsal. Satisfies GE, category C1. Prerequisite: MUS 150, or may be taken concurrently.

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 Area 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 160A HUMANITIES LEARNING COMMUNITY (4)

MUS 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

MUS 160B HUMANITIES LEARNING COMMUNITY (4)

MUS 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

MUS 189 JAZZ IMPROVISATION I (2)

An exploration and development of basic jazz vocabulary, including scales, chords, rhythm, and techniques used in melodic improvisation. May be repeated for credit with consent of instructor. Prerequisites: MUS 105, MUS 106, and consent of instructor.

MUS 199 STUDENT-INSTRUCTED COURSE (1-3)

Topic will differ each semester. Cr/NC only.

MUS 201 MUSIC IN ACTION (4)

Experience live classical, jazz, and world music performances created by today's musicians, students, and professionals. In-class discussions allow students to build a vocabulary about the performances they will review. The capstone experience is a small group presentation on an area of music mutually chosen. Attendance is required at seven on-campus, free-admission performances. Satisfies GE Area C3.

MUS 209 INTENSIVE KEYBOARD LAB II (2)

A continuation of work begun in MUS 109. Prerequisite: MUS 109, or consent of the 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; 9th, 11th, and 13th chords; melodic, phrase, and theme 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 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 220 MUSICIANSHIP II (2)

Continuation of Ear Training I. Sight-singing progresses to two-, three-, and four-part music, incorporating the most common chromatic tones. Dictation focuses upon triad inversions and seventh chords, continuing development of melodic and rhythmic dictation skills, and the introduction of polyphonic dictation. Listening skills are pursued using great works. Prerequisite: MUS 120 or equivalent.

MUS 227 CONCERT BAND (1-2)

The Concert Band is an intermediate level ensemble that provides students with opportunities to continue performing on woodwind, brass or percussion instruments. Enrollment is open to all SSU students and community members, regardless of skill level. No audition is required. The ensemble typically performs 1-2 concerts per semester. May be repeated for credit.

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 Area 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 examines the evolution of musical genres and styles, from the ancient Greeks and 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. Prerequisite: MUS 110, or consent of the 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 273 MUSIC AND SOCIETY: CRITICAL READINGS AND RECEPTION (4)

This course explores the connections between music and the sociopolitical and cultural trends of a given era, or theme involving the consideration of musical compositions, historical texts, and performance practice. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: completion of GE Category A2 (Engl 101 or ENGL 100B) required.

MUS 289 JAZZ IMPROVISATION II (3)

Basic voiceleading techniques for improvising on common functional chord progressions: blues, "Rhythm" changes, and various "standards." Prerequisites: 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 309A KEYBOARD PROFICIENCY LAB (1)

Intermediate Level class in piano with emphasis on classical music.

MUS 309B KEYBOARD PROFICIENCY LAB (1)

Continuation of 309A with more advanced studies of keyboard classical music.

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, and contrapuntal forms are included 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 313 CHORAL ARRANGING (2)

An exploration of the fundamental practices of arranging for choral ensembles. Students will create arrangements for a variety of choral settings with and without accompaniment.

MUS 314 ORCHESTRATION (2)

An exploration of fundamental techniques of instrumental and choral arranging. Students will develop familiarity with instrumental and vocal ranges, transpositions, the characteristic sounds of different families of instruments, and various tone color combinations. Students will create arrangements for a variety of ensembles. Prerequisites: MUS 210, MUS 220. Familiarity with woodwind, brass, and/or string instruments is recommended. 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 and dialects for the stage, Italian and English 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 songs and texts in French and German.

MUS 320 MUSICIANSHIP III (2)

Continued development of sight-singing and dictation skills. Techniques include solfa using moveable do and drills in rhythm and meter, intervals, triads, and full melodies. Emphasizes broad listening skills and memory through frequent melodic and harmonic dictation exercises. Through examples from the 18th and 19th centuries the course will explore modes, chromatic melodies and harmonic progressions, secondary dominants, and modulation. 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)

Repertoire includes a variety of short and medium length choral compositions, including a capella music and/or works accompanied by light instrumentation, and represents all historical periods and styles from early classics to significant contemporary works.

MUS 325 SYMPHONIC CHORUS (1-2)

Large chorus featuring a wide range of accompanied and a cappella literature. Emphasis placed on development of vocal technique, musicianship skills, and preparation of repertoire. Includes public performances. No previous choral experience required; singers will be given a placement audition 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, sight-reading and technique. A wide variety of repertoire 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)

The SSU Symphonic Wind Ensemble is a large wind band dedicated to the study and performance of a wide variety of wind band literature. Membership is open to all University students. Auditions for part assignments are held at the beginning of each semester. The SWE performs 2-4 concerts each semester. This course has a mandatory concert performance requirement. May be repeated for credit.

MUS 328 SYMPHONY ORCHESTRA (1-2)

The Symphony Orchestra performs a diverse array of orchestral literature, ranging from the Baroque period to world premieres and from classical repertoire to film, opera, and educational works. In addition to performing 2-4 concerts each year in the beautiful confines of Weill Hall, the Symphony Orchestra performs regularly on tour throughout California and beyond.

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 Bay Area will coach each ensemble. 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 student and public performance of major works of operatic and musical theatre literature. Designed for singers, actors, and others interested in music theatre. The capstone is a fully staged, orchestrally accompanied performance. May be repeated for credit. Prerequisite: by audition, in August only.

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 often write their own 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 (3)

An in-depth study of a particular type of music. Course activities will include lecture, listening, and in-class performances. Satisfies GE Area C1. May be repeated for credit.

MUS 344 STUDIES-SPECIFIC COMPOSERS (3)

An in-depth study of the life and works of a single composer. Course activities will include lecture, listening, and in-class performances. May be repeated for credit. Satisfies GE Area 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.

MUS 350 SURVEY OF WORLD MUSIC (4)

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 rhythms. Satisfies GE Area C3 (Comparative Perspectives).

MUS 351 HISTORY OF WESTERN MUSIC, 1750-PRESENT (3)

History of music in the Western tradition, dating from 1750 to the present. The course includes the study of representative composers such as C.P.E. Bach, Mozart, Beethoven, Brahms, Stravinsky, and Cage, as well as analytical studies of their works. This course requires a working knowledge of musical notation and theory. Prerequisite: MUS 251, or consent of instructor.

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. May be repeated for credit.

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 repertoire. 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 repertoire. The ensemble affords its members the chance to cultivate sensitive chamber music skills and to explore performance techniques on all the various percussion instruments. May be repeated for credit.

MUS 379 LATIN JAZZ BAND (1-2)

Rehearsal and performance of literature from the Latin diaspora, focusing on the music of the Caribbean and South America. May be repeated for credit. 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 390 JAZZ ORCHESTRA (1-2)

An 18-20 piece Big Band that performs the best literature from the traditional Swing Era to the present day. 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. May be repeated for credit.

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. May be repeated for credit.

MUS 399 STUDENT-INSTRUCTED COURSE (1-3)

Topic differs each semester. Cr/NC only. May be repeated for credit.

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. Mandatory 15 hours of observation outside of class.

MUS 401 CONDUCTING TECHNIQUE (2)

An introduction to the basics of conducting with an emphasis on conducting patterns, baton technique, and the development of effective rehearsal procedures common to instrumental and vocal ensembles. Prerequisites: MUS 110, MUS 120, and at least two of the following: MUS 115/415, MUS 122/422, MUS 123/423, MUS 124/424, and MUS 129/429.

MUS 402 CHORAL CONDUCTING (3)

Advanced choral conducting techniques. Students will further develop expressive conducting skills necessary for leading and rehearsing choral ensembles. Prerequisites: MUS 401 and consent of instructor.

MUS 403 INSTRUMENTAL CONDUCTING AND METHODS (3)

Advanced instrumental conducting techniques. Students will further develop expressive conducting skills necessary for leading and rehearsing instrumental ensembles. Prerequisites: MUS 401 and consent of instructor.

MUS 404 CHORAL METHODS AND REPERTOIRE (2)

An exploration of teaching methods, materials and repertoire necessary for teaching choral music in the public schools. This course has a mandatory requirement of 15 hours of observation outside of class of choral ensembles in the public schools. Prerequisites: MUS 401, 402 and consent of instructor.

MUS 405 INSTRUMENTAL METHODS AND REPERTOIRE (2)

An exploration of teaching methods, materials and repertoire necessary for teaching band and orchestra in the public schools. This course has a mandatory requirement of 15 hours of observation outside of class of choral ensembles in the public schools. Prerequisites: MUS 401, 403 and 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 5 tunes. Prerequisite: MUS 312 or 389.

MUS 415 VOCAL METHODS (1)

Group and individual explorations of the fundamental techniques of singing. Develop strategies to address tone production, breath control, diction, repertory, and interpretation. Music Education students learn basic vocal pedagogy. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

MUS 418 GUITAR METHODS (1)

An exploration of basic performance techniques, and pedagogy and teaching strategies for guitar. May be repeated for credit with consent of instructor. Prerequisite: consent of instructor.

MUS 420 MUSICIANSHIP IV (2)

Continuation of Ear Training III. Begins with Mozart, and proceeds through Beethoven and the Romantics into music of the 20th 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 STRINGS METHODS II (CELLO/BASS) (1)

An exploration of basic performance techniques, instrumental pedagogy and teaching strategies associated with teaching cello and bass in the public schools. Prerequisite: MUS 106 or the equivalent and/or consent of the Instructor and Director of Music Education. May be repeated for credit with consent of instructor.

MUS 423 WOODWINDS METHODS II (FLUTE/DOUBLE REEDS) (1)

An exploration of basic performance techniques, instrumental pedagogy and teaching strategies associated with teaching flute, oboe and bassoon in the public schools. Prerequisite: MUS 106 or the equivalent and/or consent of the Instructor and Director of Music Education. May be repeated for credit with consent of instructor.

MUS 424 BRASS METHODS II (HORN/TUBA) (1)

An exploration of basic performance techniques, instrumental pedagogy and teaching strategies associated with teaching horn and tuba in the public schools. Prerequisite: MUS 106 or the equivalent and/or consent of the Instructor and Director of Music Education. May be repeated for credit with consent of instructor.

MUS 425 COMPOSERS FORUM (1)

Individual projects in creative work. Individual projects in jazz performance. May be repeated for credit.

MUS 426 JAZZ FORUM (1)

Required for Jazz Performance majors every semester. Students interact with guest artists and clinicians from around the world. May be repeated for credit.

MUS 429 PERCUSSION METHODS (1)

An exploration of basic performance techniques, and pedagogy and teaching strategies associated with 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)

Advanced individual study of voice. May be repeated for credit. Prerequisites: MUS 141 and audition.

MUS 442 PRIVATE INSTRUCTION - INDIAN SINGING (1)

Private instruction in Indian classical singing. May be repeated for credit. Prerequisites: 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 CHORAL AND VOCAL ACCOMPANYING (1-2)

An exploration of piano techniques necessary for accompanying a variety of vocal ensembles. Emphasis will be placed on the development of communication skills between performers and on sight-reading proficiency. May be repeated for credit with consent of instructor.

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 advanced singers of Indian classical music. It is open to those who have taken 3 semesters of MUS 321/353 or have the consent of the instructor. Course may be repeated for credit.

MUS 460 TEACHING ASSISTANT IN MUSIC (1-4)

May be repeated for credit.

MUS 480 SPECIAL TOPICS (1-4)

Topic will vary from semester to semester. Consult Schedule of Classes for current offering. May be repeated for credit.

MUS 481 SPECIAL TOPICS WORKSHOP (1-3)

Activity will vary from semester to semester. Consult Schedule of Classes for current offering. May be repeated for credit.

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 (1-3)

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. May be repeated for credit.

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. May be repeated for credit.

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)

NAMS 160A HUMANITIES LEARNING COMMUNITY (4)

NAMS 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

NAMS 160B HUMANITIES LEARNING COMMUNITY (4)

NAMS 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

NAMS 165 NATIVE CULTURES OF NORTHERN CALIFORNIA (4)

An introduction to the local and regional diversity of American Indian communities. Through the local and regional lenses, students will gain an understanding of the broader perspectives on Native American history, experience, and contemporary issues. This is a large lecture format with discussion sub-sections. Fulfills GE Area C2 and the Ethnic Studies requirement.

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 Area D1 (Individual and Society) and the Ethnic Studies requirement.

NAMS 205 INTRODUCTION TO NATIVE AMERICAN ARTS (4)

NAMS 205 is a general introduction to traditional and contemporary American Indian arts in the U.S. The course is a survey of Native American art in major indigenous cultural regions from pre-Colonial times to the present. Includes information on the culture that produced the art forms and will explore the interplay between tradition and innovation. Satisfies GE Area C1 and the Ethnic Studies requirement.

NAMS 273 AMERICAN DIVERSITY (4)

This course explores and analyzes European and American historical events from a Native American perspective. Three Native culture areas will be used as examples: the Great Plains, the Southwest, and Northern California. Special emphasis will be placed on the events that shaped the lives of American Indians in these areas. Native philosophical perspectives and values will be illuminated in contrast to Euro-American philosophy and values. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: ENGL 101.

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 (4)

This course examines and critiques the depiction of American Indians in American cinema, including Hollywood movies, independent films, and documentaries. These works are analyzed through an exploration of the social construction of stereotypes, film theory, and historical and cultural contexts. Films by American Indians and non-Indians will be examined and analyzed. Satisfies GE Area C1 and the Ethnic Studies requirement.

NAMS 346 PHILOSOPHIC SYSTEMS AND SACRED MOVEMENTS IN NATIVE NORTH AMERICA (4)

NAMS 346 is designed to give students an overview of a broad range of topics arising in the study of diverse Native American philosophical systems and sacred movements, pre-contact to the present. Regional and historical approaches are utilized in the analysis of American Indian religious movements and philosophic systems; archaeoastronomy, art forms, ceremonies, and a variety of literary genres are investigated as expressions of religious belief and activity. Satisfies GE Area C2 and the Ethnic Studies Requirement.

NAMS 354 NATIVE AMERICAN LITERATURES (4)

A general introduction to American Indian literatures that includes early translations, oral literatures, autobiographies, and contemporary poetry and fiction. The course also focuses on the American Indian writers' connection to a "home landscape." The study of the scope and nature of various representations of American Indians in literary texts are explored. Satisfies GE Area C2 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 THE AMERICAN SOUTHWEST (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 (0)

Emphasizes the practical application of traditional and contemporary Native American art forms, designs, and techniques. This course attempts to advance 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. May be repeated for credit.

Nursing (NURS)

NURS 301 NURSING CARE OF THE ADULT CLIENT I (9)

Seminar, 5 hours; practicum, 4 hours. This course is an introduction to nursing therapeutics underlying the basic skills and concepts in the practice of professional nursing. The focus is on concepts related to physical, emotional, spiritual, social and cultural needs and mechanisms for maximizing health. Basic pharmacology is included. Emphasis is placed on the application of the nursing process in maintaining health for adults. Prerequisites: Nursing majors only.

NURS 302 NURSING CARE OF ADULT CLIENT II (6)

Seminar, 4 hours; practicum, 2 hours. This course continues the application of nursing therapeutics underlying the basic skills and concepts in the practice of professional nursing. The focus is on concepts related to physical, emotional, spiritual, social, and cultural needs and mechanisms for maximizing health. Basic pharmacology is included. Emphasis is placed on the application of the nursing process in maintaining health and older adult populations. Prerequisites: NURS 301, NURS 303, and Nursing majors only.

NURS 303 MATERNITY & WOMEN'S HEALTH CARE (6)

Seminar, 4 hours; practicum, 2 hours. Principles and concepts of health and illness in childbearing and childrearing families are covered with an emphasis on preventive and therapeutic aspects for the pregnant and postpartum client. Use of community resources is introduced. Clinical experiences apply the caring process to childbearing and childrearing families with a focus on the principles and concepts of health promotion and maintenance to families in various phases of the health and illness continuum. Prerequisites: Nursing majors only.

NURS 304 PSYCHIATRIC AND MENTAL HEALTH NURSING (6)

Seminar, 4 hours; practicum, 2 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. Prerequisites: NURS 301, NURS 303, and Nursing majors only.

NURS 310 NURSING RESEARCH AND EVIDENCE-BASED PRACTICE (3)

Seminar, 3 hours. This course examines sources of evidence, the nature of inquiry, basic research concepts, language, and processes. Approaches to research and ways of knowing in nursing and related sciences are explored. Qualitative and quantitative research methods are compared. Students critically appraise and interpret studies in order to enhance their understanding of the research process. Theoretical frameworks for research are explored. Levels of evidence are explored and the evidence-based practice brief is created. Prerequisite: course restricted to Nursing majors only.

NURS 312 BACCALAUREATE NURSING PERSPECTIVES I (4)

This course provides the foundation for critically examining the current healthcare system, evidenced-based nursing practice, safety and quality standards in healthcare delivery and interdisciplinary communication and collaboration. Prerequisites are admission to the nursing major.

NURS 313 BACCALAUREATE NURSING PERSPECTIVES II (4)

This course expands knowledge about the role of the professional nurse in society by exploring leadership and advocacy as integral components of professional nursing. It examines goals of current health care system reform including nursing's expanded professional role in promoting health and mitigating health care disparities and inequities. Prerequisites: Course restricted to Nursing majors only.

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). Prerequisite: consent of instructor.

NURS 407 NURSING CARE OF THE ADULT CLIENT III (6)

This course continues the application of nursing therapeutics underlying the basic skills and concepts in the practice of professional nursing. The focus is on concepts related to physical, emotional, spiritual, social, and cultural needs and mechanisms for maximizing health. Advanced pharmacology is included. Emphasis is placed on the application of the nursing process in maintaining health for complex adults and older adult population. Prerequisites: NURS 301, 302, 303, 304 & 310 and Nursing majors only.

NURS 409 NURSING CARE OF THE CHILD IN THE FAMILY (6)

This course continues the application of nursing therapeutics, skills, and concepts in the practice of professional nursing specific to the care of the child. The focus is on concepts related to physical, emotional, spiritual, social, and cultural needs and mechanisms for maximizing health. Basic pharmacology is included. Emphasis is placed on the application of the nursing process in maintaining health for children and families. Prerequisites: NURS 301, 302, 303, 304, and Nursing majors only.

NURS 410 NURSING POWER, POLICY, AND POLITICS (5)

This course examines the role of nursing in influencing health care from an economic, legal/ethical, political, interdisciplinary, and multicultural framework. Topics for discussion are based on current issues and trends in nursing practice, leadership, and the socio-political landscape. Prerequisites: Completion of NURS 310 and Nursing majors only.

NURS 412 COMMUNITY/PUBLIC HEALTH NURSING (3)

This course explores populations focused nursing the context of health promotion and protection for individuals, families, and communities. Determinants of health such as epidemiology, environmental health, and public health science will be addressed along with a focus on social cultural factors which impact health of communities. Prerequisites: Nursing majors only.

NURS 412P COMMUNITY/PUBLIC HEALTH NURSING PRACTICUM (2)

This clinical course explores populations focused nursing the context of health promotion and protection for individuals, families, and communities. The practicum will involve enhancing the health promotion efforts of individuals, communities, and families. Nursing majors only.

NURS 414 CLINICAL NURSING PRECEPTORSHIP (5)

Clinical application of theories and concepts from nursing and related sciences is applied in the nursing care of selected populations. Evidence-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. Prerequisites: Completion of NURS 310 and Nursing majors only.

NURS 416 APPLICATION OF BACCALAUREATE PERSPECTIVES (3)

Application of theories and concepts from nursing and related sciences is applied in the nursing care of selected populations for the post-licensure B.S.N. student. Evidence-based knowledge and pertinent theoretical frameworks are utilized to respond to complex and specific health care needs of self-selected populations. Integration and synthesis of concepts, personal development, and leadership/management abilities are expanded through professional nursing practice. Prerequisites: completion of all 300 level nursing courses, R.N. licensure, and Nursing majors only.

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 Area E. Open to non-nursing majors. Prerequisite: upper-division standing.

NURS 490 THE SEXUAL IMPERATIVE: HISTORY, MEDIA, CULTURE, AND IMAGINATION. (4)

This on-line course examines historical, cultural, philosophical and artistic influences on relationships, gender expressions and sexuality among various lifestyles within the United States and the world. Specific perspectives within these foci include historical events and philosophies as they have influenced cultural mores, artistic expression and literature shaping human sexual health, values, beliefs and behaviors. Satisfies GE Area C2.

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. May be repeated for credit.

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 498 TEACHING ASSISTANT PRACTICUM (1-4)

Supervised unpaid instructional work experience in Nursing. May include tutoring, assisting with classroom activities, and leading clinical skills laboratory activities. Intended for professional growth for undergraduates. May be repeated for up to 4 units. Prerequisites: consent of instructor whose course the student will be working, and an approved petition to enroll.

NURS 501 HEALTH PROMOTION: RIGHTING DISPARITIES (4)

Online course. Advanced concepts to assess and promote the behaviors that enhance the health of clients across the lifespan, taking into account the multiple dimensions of and the attendant risks unique to the dimension of Person. Principles and theories of the behavioral sciences, epidemiology, family health, psychology, sociology, genomics, and ethical decision-making are investigated. Prerequisite: Admission to the F.N.P. Program. Corequisites: NURS 509.

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 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 HEALTH ASSESSMENT (4)

This hybrid course reviews and expands upon concepts and skills of human assessment basic to advanced practice clinical decision-making and the caring process. Lab Fee. Prerequisite: Admission to the F.N.P. Program. Corequisites: NURS 501.

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. Prerequisite or 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. D.E.M.S.N. 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 CLINICAL NURSE LEADER 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. Prerequisite: 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 NURS 535A 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. Prerequisite or corequisite: NURS 535A.

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: R.N. licensure and completion of NURS 506, NURS 502, NURS 509, NURS 507, NURS 515A, NURS 500A, NURS 500B, and NURS 514.

NURS 540A PATHOPHYSIOLOGICAL CONCEPTS IN PRIMARY CARE I (3)

Hybrid course. Develops a 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. Prerequisites: NURS 501, NURS 509, NURS 549. Corequisite: NURS 552, NURS 550A.

NURS 540B PATHOPHYSIOLOGIC CONCEPTS IN PRIMARY CARE II (3)

Hybrid course. Continue to develop 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 the person and environment as a basis for selecting strategies to promote health and minimize the effects of illness. Emphasized interdisciplinary aspects of primary health care through partnerships with patients as a basis for collaboration, consultation and referral. Prerequisites: N501, N509, N549, N552, N540A, N550A and concurrently enrolled in N550B.

NURS 549 HEALTH PROMOTION PRACTICE IN PRIMARY CARE (3)

This clinical course correlates with and supports the student in applying the theoretical concepts in 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 promotion plan. Prerequisite: Admission to the F.N.P. Program. Corequisites: NURS 501, NURS 509.

NURS 550A CLINICAL PRACTICE IN PRIMARY CARE I (4)

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. Begin to develop advanced nursing role identity as FNP. Prerequisites: NURS 549, NURS 501, NURS 509. Corequisites: NURS 540A, NURS 552. Laboratory fee payable at time of registration.

NURS 550B CLINICAL PRACTICE IN PRIMARY CARE II (4)

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 diagnosis and management plans. Personal and professional parameters of the nurse practitioner role are examined. Prerequisite: NURS 501, NURS 509, NURS 549, NURS 550A, NURS 540A, NURS 552. Corequisite: NURS 540B; NURS 560 can be a prerequisite or corequisite.

NURS 550C CLINICAL PRACTICE IN PRIMARY CARE III (4)

Expanded 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 501, NURS 509, NURS 540A/B, NURS 549, NURS 550A/B, NURS 552, NURS560. Corequisite: NURS 562, NURS 564, NURS 566.

NURS 552 PHARMACOLOGY IN PRIMARY CARE (3)

This online course develops a foundation for safe and effective management of client's pharmacological needs in the care of common acute and chronic illnesses. Research findings and theory-based knowledge are applied in assessing the needs of the individual client for medications and patient education. Parameters of legal practice, including the prescribing of schedule II drugs, and community standards of care are addressed. Meets state educational requirement for NP furnishing license. Prerequisites: NURS 509, NURS 549, NURS 501, or permission of instructor. Corequisites: NURS 540A, NURS 550A, 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 chart notes and verbal presentation to preceptor.

NURS 560 RESEARCH AND THEORY APPLIED TO PRIMARY CARE (4)

Online course. Linkages between theory, research, and advanced practice are developed to provide the student with the necessary skills to critically analyze and apply research in primary care. Prerequisite: NURS 501, 509, 540A, 550A, 552.

NURS 562 ADVANCED PRACTICE IN PRIMARY CARE SYSTEMS (4)

Online course. Nurse Practitioner practice issues are examined with a focus on quality assurance, safe delivery, and ethical patient care within the legal parameters of Nurse Practitioner practice from a local, state, and national perspective. Organization and management theory are analyzed in relation to primary care and Nurse Practitioner role and practice. Prerequisites: NURS 501, NURS 509, NURS 549, NURS 540AB, NURS 552, NURS 550AB, NURS 560. Corequisites: NURS 564, NURS 550C, NURS 566.

NURS 564 HEALTH POLICY AND ADVOCACY IN PRIMARY CARE (4)

Online course. Course reviews the principal way health care and specifically primary care is organized and financed, and identifies current issues in health care organizations and financing. Prerequisites: NURS 501, NURS 509, NURS 549, NURS 540AB, NURS 552, NURS 550AB, NURS 560. Corequisites: NURS 564, NURS 550C, NURS 566.

NURS 566 CULMINATING EXPERIENCE (2)

The Culminating Experience will be the capstone course for the FNP student. The Culminating Experience is in the form of a Clinical Simulated Exam (CSE) and will be based on a standardized client. There are three parts to the Experience that will simulate a clinical encounter with a client: the student must demonstrate the ability to 1) gather subjective and objective data from a client, 2) develop and present a logical assessment and plan for a client, and 3) in a scholarly manner apply theoretical principles to client care. Prerequisites: NURS 501, NURS 509, NURS 540AB, NURS 549, NURS 550AB, NURS 552, NURS 560. Corequisites: NURS 550C, NURS 562 NURS 564.

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 the master's program in Nursing, and consent of instructor and department chair. May be repeated for credit.

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.

Organization Development (OD)

OD 497 SELECTED TOPICS (1-5)

Intensive study of topics in the field of Organization Development that are not currently included in the regular curriculum. Topics will vary from semester to semester. Does not fulfill requirements for M.A. degree, but is intended to provide supplemental learning opportunities for graduates as well as potential applicants. May be repeated for credit. Prerequisite: consent of instructor

OD 513 FACILITATION AND TRAINING (3-4)

Theories of adult development, learning styles, and experience-based training. In-class practice in assessing needs, defining objectives, designing and planning training experiences, presentation methods and skills, and evaluating outcomes. Students apply emerging methods for managing meetings and facilitating groups for effective planning, problem-solving, and communication. Limited to students in the Organization Development Program.

OD 514 ORGANIZATION AND TEAM DEVELOPMENT (3-4)

Contributions of systems theory and organization development practice for guiding constructive change and self-renewal in groups, organizations, and communities. Students integrate theory and practice of process-oriented leadership and consultation, in the context of a supervised field experience with an actual organization. Prerequisite: OD 513.

OD 518A ADVANCED INTERVENTION METHODS IN ORGANIZATION DEVELOPMENT (2)

Intensive workshops and short seminars on advanced topics and methods for guiding change such as: open systems planning, future search conference, dialogue, open space, participative redesign, conflict resolution, and strategic planning. Two semesters. Limited to students in the Organization Development program.

OD 518B ADVANCED INTERVENTION METHODS IN ORGANIZATION DEVELOPMENT (2)

Intensive workshops and short seminars on advanced topics and methods for guiding change such as: open systems planning, future search conference, dialogue, open space, participative redesign, conflict resolution, and strategic planning. Two semesters. Limited to students in the Organization Development program.

OD 533A INTERPERSONAL DYNAMICS IN ORGANIZATION DEVELOPMENT (1-3)

Experiential and conceptual study of group and interpersonal interaction processes, with an emphasis on the unfolding dynamics within the class group itself. Interpersonal feedback in the service of personal and professional development. Developmental models of group behavior. Intervention and facilitation methods and skills. Limited to students in the Organization Development program. (Three semesters.)

OD 533B INTERPERSONAL DYNAMICS IN ORGANIZATION DEVELOPMENT (1-3)

Experiential and conceptual study of group and interpersonal interaction processes, with an emphasis on the unfolding dynamics within the class group itself. Interpersonal feedback in the service of personal and professional development. Developmental models of group behavior. Intervention and facilitation methods and skills. Limited to students in the Organization Development program (three semesters).

OD 533C INTERPERSONAL DYNAMICS IN ORGANIZATION DEVELOPMENT (1-3)

Experiential and conceptual study of group and interpersonal interaction processes, with an emphasis on the unfolding dynamics within the class group itself. Interpersonal feedback in the service of personal and professional development. Developmental models of group behavior. Intervention and facilitation methods and skills. Limited to students in the Organization Development program (three semesters).

OD 544A QUALITATIVE RESEARCH IN ORGANIZATIONS (1-3)

This course introduces the principles and techniques of qualitative research that are relevant for designing and carrying out research in organizations. Topics may include phenomenology, action research, social construction, grounded theory, and discourse analysis. The course goal is to facilitate the design, analysis, and reporting of research projects relevant to the practice of organization development. Open to students in the Organization Development Program only.

OD 544B QUALITATIVE RESEARCH IN ORGANIZATION (1-3)

This course introduces the principles and techniques of qualitative research that are relevant for designing and carrying out research in organizations. Topics may include phenomenology, action research, social construction, grounded theory, and discourse analysis. The course goal is to facilitate the design, analysis, and reporting of research projects relevant to the practice of organization development. Open to students in the Organization Development Program only.

OD 554 ORGANIZATIONAL SYSTEMS INQUIRY (3-4)

Study of human systems and organizations based on core and emerging theories and research. Emphasis on application of systemic perspectives for understanding the functioning and dynamics of organizations, including structure, culture, technology, leadership, environment, and change. Limited to students in the Organization Development Program.

OD 556 SOCIO-TECHNIC SYSTEMS REDESIGN (2-4)

A seminar in the design or redesign of work organizations to increase productive effectiveness while enhancing the quality of the human work experience. Emphasis on the application of systems concepts and methods for understanding and jointly optimizing the social and technical aspects of work environments. Both classical and emerging models for addressing whole system change are considered. Prerequisite: PSY 554. Limited to students in the Organization Development Program.

OD 557A HUMAN SYSTEMS REDESIGN (1-4)

The social construction of meaning in the context of interrelated human systems, including individuals, relationships, teams, families, organizations, communities, and the global society. This course considers analytical perspectives as well as their application to the practice of change facilitation and leadership. Open only to students in the Organization Development Program.

OD 557B HUMAN SYSTEMS REDESIGN (1-4)

The social construction of meaning in the context of interrelated human systems, including individuals, relationships, teams, families, organizations, communities, and the global society. This course considers analytical perspectives as well as their application to the practice of change facilitation and leadership. Open only to students in the Organization Development Program.

OD 572A INTERNSHIP AND PROFESSIONAL PRACTICE IN ORGANIZATION DEVELOPMENT (4)

Seminar in current and emerging topics related to professional practice as an internal consultant, external consultant, or change leader. Students carry out 180 hours of approved supervised field projects applying Organization Development concepts and methods with groups, organizations, or communities. Two semesters. Limited to students in the Organization Development program.

OD 572B INTERNSHIP IN ORGANIZATION DEVELOPMENT (4)

Supervised practical experience applying organization development concepts and methods in profit or nonprofit settings. Limited to students in the Organization Development Program only.

OD 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.

OD 596 GRADUATE TUTORIAL (1-4)

Seminar in selected topics. Consult semester class schedule for current offerings.

OD 597 SELECTED TOPICS (1-5)

Intensive study of topics in the field of Organization Development that are not currently included in the regular curriculum. Topics will vary from semester to semester. Does not fulfill requirements for MA degree, but is intended to provide supplemental learning opportunities for graduates as well as potential applicants. May be repeated for credit. Prerequisite: consent of instructor

OD 598 CULMINATING PAPER TUTORIAL (1-4)

This tutorial provides specific guidance and consultation at each phase of the students' work on the culminating paper for the Psychology M.A. in Organization Development.

Philosophy (PHIL)

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 thoughts 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 Area A3 (Critical Thinking).

PHIL 101A CRITICAL THINKING (2)

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 thoughts 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 Area A3 (Critical Thinking).

PHIL 101B CRITICAL THINKING (2)

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 Area A3 (Critical Thinking).

PHIL 102 INTRODUCTION TO LOGIC (4)

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 Area A3 (Critical Thinking).

PHIL 120 INTRODUCTION TO PHILOSOPHY (4)

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 Area C2.

PHIL 160A HUMANITIES LEARNING COMMUNITY (4)

PHIL 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

PHIL 160B HUMANITIES LEARNING COMMUNITY (4)

PHIL 160 A/B is a year long course, which features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

PHIL 165A HUMANITIES LEARNING COMMUNITY (4)

PHIL 165 A/B is a year long course, which, features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking and C3 (Comparative Perspectives and/or Foreign Languages) GE categories. This course also fulfills the Ethnic Studies requirement.

PHIL 165B HUMANITIES LEARNING COMMUNITY (4)

PHIL 165 A/B is a year long course, which, features weekly lectures and small seminars. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking and C3 (Comparative Perspectives and/or Foreign Languages) GE categories. This course also fulfills the Ethnic Studies requirement.

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 Areas A2 and A3. May be repeated for credit.

PHIL 201 BUDDHISM, PHILOSOPHY & CULTURE (4)

This course explores foundational teachings Buddhist philosophy, religion, arts and culture and examines the interactions between those teachings and Western science, philosophy and culture. Students read original writings from the Buddha as well as Buddhist scholars, selections from Western philosophy and contemporary scientific research that deals directly with Buddhism.

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, and the nature of beauty. Topics will vary from year to year depending on the interests of faculty. Prerequisite: current Philosophy major or minor, or permission of instructor.

PHIL 203 GLOBAL JUSTICE (4)

This course covers theoretical and practical issues of global justice. Topics may include: what obligations wealthy nations owe to the global poor; responsibility for the costs of climate change; what rules should govern international trade; when going to war is just; whether terrorism is a legitimate means of conducting war; how terrorism may be combated; whether nations have the right to exclude immigrants; whether we should have numerous nation-states or one cosmopolitan society. Satisfies GE, area C2.

PHIL 204 APPLIED ETHICS (4)

The focus of this course is the philosophical examination, from a moral standpoint, of pressing issues that we as human beings face today. For example, depending on the faculty member teaching, the course might focus on the ethics of science and technology, environmental ethics, bioethics, or business ethics. Students will gain an understanding of moral theory in this course but always through a practical field of study. The course is essentially interdisciplinary.

PHIL 205 ETHICS, LAW, AND SOCIETY FORUM (1)

A series of events focused on current issues in law, ethics, and justice. The events will include visiting lectures, debates, film screenings, and workshops. Satisfies GE, area C2. These events will cover a wide-ranging and evolving range of topics, such as racial identity, climate change, technology and war, human trafficking, gender and sexuality law, distributive justice, privacy, and more. May be repeated for credit.

PHIL 207 PHILOSOPHICAL MOVEMENTS (4)

A class dedicated to a range of alternative historical movements in philosophy. They can be chosen from ancient, medieval, modern, or contemporary examples. As movements they have some degree of unity or cohesiveness within their historical period, and their study seeks to describe, besides their internal characteristics, this historical context. Previous examples of movements taught have included: existentialism, phenomenology, ordinary language philosophy, American pragmatism, deconstruction, and the Frankfurt School.

PHIL 212 THE GOOD LIFE (4)

The good life has been a subject of philosophical reflection for centuries. This course looks at how different cultures have addressed a variety of questions concerning the good life from a philosophical perspective. Specific topics may include: what counts as a good life; what happiness is; the relation between morality and the good life; what makes for a life with meaning; whether we really matter in the big picture; whether we can make a difference; whether life is absurd; and whether death is bad for the one who dies.

PHIL 273 CRITICAL AND CREATIVE READINGS OF PHILOSOPHICAL LITERATURE (4)

This course explores a variety of key philosophical concepts such as truth, justice, equality, fairness, the good and beauty within the historical, socio-cultural and political contexts from out of which they developed and continue to do so. Students will gain a deeper understanding of these ideas while learning how to read and write about them in a variety of different contexts. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: completion of GE Category A2 (Engl 101 or ENGL 100B) required.

PHIL 275 RACE, RACISM, LAW, AND SOCIETY (4)

This course covers theoretical, practical, and legal issues surrounding race and racism. Topics may include: what counts as 'racist'; when discrimination is allowable; racial profiling; tolerating cultural differences; whether race-thinking makes sense; and the nature of racial identities like white or Latino. This course fulfills GE category C3 and Ethnic Studies.

PHIL 301 PHILOSOPHY OF SCIENCE AND TECHNOLOGY (4)

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. 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 (4)

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 Area C2. Consult Schedule of Classes for the topic to be studied.

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 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, market critique, religious pluralism, media and pop culture, law, and social movements.

PHIL 307 PHILOSOPHICAL FIGURES (4)

This course provides students with an in-depth study of one or more figures from the philosophical literature. Faculty will select the specific figures in light of their current research interests and projects. The course can range over historical and contemporary texts. Possible topics might include Hegel, Kant, Nietzsche, Aristotle, Heidegger, and Habermas. Per faculty interest, students may study philosophical figures from non-Western traditions, such as Buddhism.

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; 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 (4)

This course will expose students to classical and contemporary issues in Philosophy of Law. Topics may include the following: When can the government use the law to infringe on our liberty? Is it legitimate for the law to force us to act in our own best interests, say by prohibiting drugs or prostitution? When can the law interfere with freedom of expression? In particular, can it prohibit offensive speech, such as racist or sexist speech, or pornography? Should we abolish punishment, so that criminal offenders are never punished for their crimes? This course will also address classical analytic jurisprudence.

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. May be repeated for credit.

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. May be repeated for credit.

PHIL 490 CRITICAL THINKING WORKSHOP (1)**PHIL 495 SPECIAL STUDIES (1-4)**

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. May be repeated for credit.

PHIL 499 LAW, ETHICS, AND JUSTICE 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)

PHYS 100 DESCRIPTIVE PHYSICS (3)

Lecture, 3 hours. A descriptive survey of the important principles of physics. Satisfies GE Area B1 or B3 (Physical Sciences). Registration for Chemistry, Physics, or Mathematics majors requires Physics and Astronomy Department consent.

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 Area 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 Area B1 or B3 (Physical Sciences). Prerequisite: MATH 161.

PHYS 114W PHYSICS I WORKSHOP (1)

A workshop designed to be taken with PHYS 114. Exploration of first-semester calculus based physics concepts through inquiry based learning and problem solving in a group setting. Cr/NC only. Corequisite: PHYS 114

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 Area B1 or B3 (Physical Sciences) and GE laboratory requirements. Prerequisite: prior 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 Area 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: PHYS 209A or PHYS 116.

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. Satisfies GE Area B1 or B3 (Physical Sciences). Prerequisites: high school algebra and trigonometry or MATH 160.

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. Prerequisite: PHYS 210A or PHYS 114.

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 and 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 and MATH 211. 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, and applications of circuit simulation programs. Concurrent enrollment in PHYS 313L is mandatory. Prerequisites: MATH 160 or MATH 161 or MATH 161X, 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 the PHYS 313 lecture course. Students will experiment with physical and simulated circuits. Concurrent enrollment in PHYS 313 is mandatory. Prerequisites: MATH 160 or MATH 161 or MATH 161X, 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 and 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 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, and 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; and human and animal vision and visual perception. Satisfies GE Area 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, and 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 PHYS 325. Cross-listed as ES 430.

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 and junction photodiodes; p-i-n diodes and avalanche photodiodes; and detector noise. Prerequisite: PHYS 314 or consent of instructor. Cross-listed as 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, and the laws of thermodynamics; Boltzmann, Bose, and Fermi statistics; and 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, and 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. Cross-listed as 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. Prerequisites: PHYS 214 and 216 or PHYS 210B and 209B. Course may be repeated for credit.

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. Prerequisite: PHYS 313L. Application form required prior to enrollment. Course may be repeated for credit.

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. May be repeated for credit.

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-level standing and consent of instructor.

Political Science (POLS)

POLS 151 CREDIT BY EXAM: 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 Area 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 Area 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, and containment. Open to majors and minors in political science. Meets code requirements in American Constitution and California state and local government. Satisfies GE Area 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 COMPARATIVE POLITICAL ANALYSIS (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 THEORY AND ANALYSIS OF 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.

POLS 307 PERSPECTIVES ON THE HOLOCAUST AND GENOCIDE (4)

This course is a weekly lecture series on the Holocaust, selected genocides and human rights. Guest lecturers and SSU faculty provide a variety of political and interdisciplinary perspectives on the topics. The course explores the intellectual, emotional, and ethical aspects of the Holocaust and genocides 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. Prerequisite: upper division or graduate standing. Satisfies upper-division GE, Category D5, (Contemporary International Perspectives).

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 OBAMA (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 "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 is in reevaluating our political values as we face an increasingly diverse and interdependent world.

POLS 315 MODERN POLITICAL IDEOLOGIES (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 Area D5 (Contemporary International Perspectives).

POLS 320 STATE, CITY, AND COUNTY GOVERNMENT (4)

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 the 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. Consent of instructor required.

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. May be repeated for credit with different topic.

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.

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 422 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. Cross-listed as CCJS 405.

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 the 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 at both federal and state levels. 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 non-governmental, 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?" and "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; and creating, examining, and 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 POLITICS OF THE DEVELOPING WORLD (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. May be repeated for credit with different topic.

POLS 487 SELECTED TOPICS IN COMPARATIVE POLITICS (4)

Focus on dynamic political issues and developments in selected regions.

POLS 488 SPECIAL TOPICS IN AMERICAN GOVERNMENT AND POLITICS (4)

An examination of current topics and development in American Government and Politics. Title varies to reflect specific content each semester. May be repeated for credit with different topic.

POLS 494 SELECTED TOPICS IN POLITICAL SCIENCE (1-4)

May be repeated for credit with different topic.

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 M.P.A. 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 NONPROFIT AGENCIES (2)

An examination of applied issues in nonprofit budgeting and fiscal management. Fund accounting, cash flow analysis, expenditure control, long-range financial planning, audits, grants, and contracts in nonprofit agencies are studied. Required for nonprofit track students.

POLS 504A PUBLIC PERSONNEL ADMINISTRATION (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 NONPROFIT ORGANIZATIONS (2)

Examination of current issues in the management of employees and volunteers in nonprofit 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. Cross-listed 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.

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 masters 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 nonprofit's 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 M.P.A. 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 NONPROFIT 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 M.P.A. 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. Repeatable for credit up to 4 units total.

POLS 599 MASTER'S THESIS (2-4)

Prerequisite: submission of an authorized Advancement to Candidacy form.

Portuguese (PORT)

PORT 210 PORTUGUESE FOR SPANISH SPEAKERS (4)

This course provides Spanish speaking students with an accelerated introduction to spoken and written Portuguese.

Psychology (PSY)

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. The role of culture is emphasized. 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 Area D1 (Individual and Society).

PSY 270 PSYCHOLOGY OF SELF-DISCOVERY (4)

Introduction to psychological theory, research and practice relevant to developing self-knowledge as it applies to people of diverse backgrounds. Possible approaches include humanistic, positive, depth, Buddhist, and indigenous psychology, and basic skills and practices in self-reflection, mindfulness, dream work, and earth-based practices. Required for major. Prerequisites: Admission to the major, PSY 250 and Sophomore standing.

PSY 280 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. Prerequisites: PSY 250 and admission to the Psychology major.

PSY 302 LIFE SPAN DEVELOPMENT (3)

A multidisciplinary examination of the cognitive, 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 Area E (The Integrated Person). Breadth Area: Development.

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 with others. Interrelationships with larger political and economic variables are explored, drawing from other disciplines that offer relevant insights and knowledge, including cross cultural perspectives. Methodology issues relevant to under represented populations will be emphasized. Upper Division Elective. Satisfies GE, category D1 (Individual and Society).

PSY 306 HISTORY OF MODERN PSYCHOLOGY (4)

Perspectives on the field of psychology. Includes past and present understandings of human experience, integrating issues and controversies. Includes epistemology; traditional scientific and clinical methodologies; and behavioral, psychoanalytic, and Gestalt psychologies. Psychology majors only. Upper Division Elective.

PSY 307 HUMANISTIC, EXISTENTIAL, AND TRANSPERSONAL PSYCHOLOGY (4)

Theories, methods, and research in humanistic, existential, and transpersonal psychology, including cultural variations. Psychology majors only. Breadth Area: Holistic.

PSY 311 PSYCHOLOGY DIALOGUE SERIES (1-2)

A lecture series that explores current topics of interest to psychologists. Topics include research, diversity, social justice, clinical, developmental, professional and academic fields in psychology. CR/NC only. Upper Division Elective.

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. Upper Division Elective.

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-level standing. Breadth Area: Holistic.

PSY 325 SOCIAL PSYCHOLOGY (4)

This course examines how the social situation influences how individual people feel, think, and behave. Topics covered include: attitudes, perceptions of others, helping behavior, the self, attraction, aggression, conformity, prejudice, and cross-cultural variations. Satisfies GE Area D1 (Individual and Society). Breadth Area: Social/Personality.

PSY 327 PSYCHOLOGY IN 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, and leadership and organizational change. Prerequisites: PSY 250 and PSY 280 or permission from the instructor. Breadth Area: Social/Personality.

PSY 328 MULTICULTURAL 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 world view regarding race/ethnicity, culture, gender, sexual orientation, age, disability, religion and socio-economic status. 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. Breadth Area: Social/Personality.

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. The role of culture is emphasized. This class is normally conducted as an encounter group, with supplementary readings and written work. Prerequisites: admission to the Psychology major and junior-level standing. Breadth Area: Clinical/Counseling.

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 as it applies to people of diverse backgrounds. Breadth Area: Holistic.

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, everyday life and across cultures. Emphasis on individual and group projects. Service-learning course. Breadth Area: Holistic.

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, and readings and discussions of the psychodynamics of meditation. Breadth Area: Holistic.

PSY 352 PSYCHOLOGY OF YOGA (3-4)

An introduction to the literature and practice of Yoga. The course normally includes separate lecture and practice sessions. Focus on the application of Yoga to enhance well being, prevent psychological problems, and treat psychological conditions. Breadth Area: Holistic.

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. Cross-cultural issues are included. Prerequisites: admission to the Psychology major and junior-level standing. Breadth Area: Holistic.

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-level standing. Breadth Area: Clinical/Counseling.

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. Breadth Area: Cognitive/Physiological.

PSY 399 GRADUATE STUDENT-INSTRUCTED COURSE (1-3)

Each graduate student-instructed course (SIC) 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. The course should address cultural variations or diversity issues. Consult the Schedule of Classes for the topic studied. May be repeated once for credit. Only two SICs may be credited toward the Psychology major. Upper Division Elective.

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-level standing. Breadth Area: Social/Personality. Cross-listed with WGS 330.

PSY 405 THE PSYCHOLOGY OF GENDER (4)

Explores gender through a social psychological perspective. Topics include gender socialization, the structure and function of gender stereotypes, masculinity, and gender discrimination. Cross-listed as WGS 405. Breadth Area: Social/Personality.

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. Cross-cultural aspects are included. Cross-listed as GERN 408. Prerequisite: junior-level standing. Breadth Area: Developmental.

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. Breadth Area: Developmental.

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-level standing, or consent of instructor. Breadth Area: Developmental.

PSY 411 CHILD PSYCHOPATHOLOGY (4)

An overview of the development of psychological disorders in childhood and adolescence, including neurodevelopmental, emotional, behavioral, and other mental health diagnostic categories. Psychopathology is understood as the interplay among child, family, peer, and cultural influences as well as biological, psychological, and sociocultural factors. Empirically supported approaches to treatment and prevention are included. Breadth Area: Clinical/Counseling. Prerequisites: PSY 410 or PSY 302 or equivalent, and junior-level standing.

PSY 412 ADOLESCENT PSYCHOLOGY (3-4)

An examination of the social, cognitive, and biological theories in adolescent development, including cross-cultural variations. Material is drawn from research and personal interaction with adolescents. Prerequisite: junior-level standing. Breadth Area: Developmental.

PSY 413 ADOLESCENT DEVELOPMENT THROUGH FILM (4)

A study of the social, emotional, physical, and cognitive development of adolescence through the exploration of popular films. The course will be comprised of lecture, readings, films, and other media. Breadth Area: Developmental.

PSY 414 INFANT DEVELOPMENT (4)

The course is designed to provide students an in-depth perspective on development from the prenatal period through the third year of life. The specific areas of development, including biological, cognitive, social, and emotional, will be covered. Additionally, students will become familiar with the major methodologies used to study infant development. The emphasis of the course is on normative development. Prerequisites: Psy 250 and junior-level standing, or instructor consent. Breadth Area: Developmental.

PSY 415 SENSATION & PERCEPTION (4)

This class is an exploration of how energy is transduced by the sensory system into internal conscious representations of space, time, smell, sight, sound and touch. We will explore the methods used in the study of perception and the biology that supports our experience of everyday life. Breadth area: Cognitive/Physiological.

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. The role of culture is emphasized. Prerequisite: junior-level standing. Breadth Area: Developmental.

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. Includes the exploration of the role of memory for learning and psychological functioning, as well as cross-cultural variations. Includes the study of issues in mental health in adulthood and later life. Cross-listed as GERN 421. Prerequisite: junior-level standing or instructor permission. Breadth Area: Developmental.

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, immortality, and culture will be addressed. Cross-listed as GERN 422. Breadth Area: Developmental.

PSY 425 PSYCHOPATHOLOGY (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. The role of culture is emphasized. Prerequisites: PSY 302, admission to the Psychology major and junior-level standing, or consent of instructor. Breadth Area: Clinical/Counseling.

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. The role of culture is emphasized. Prerequisites: 6 units of Psychology. Breadth Area: Clinical/Counseling.

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. Breadth Area: Clinical/Counseling.

PSY 430 DEPTH ORIENTED PSYCHOTHERAPIES (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. Breadth Area: Clinical/Counseling.

PSY 431 INTRODUCTION TO ART THERAPY (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. The role of culture is emphasized. Prerequisite: junior-level standing. Breadth Area: Clinical/Counseling.

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 role of culture is emphasized. The class is appropriate for anyone interested in disability, whether for personal or professional reasons. Cross-listed as GERN 438. Breadth Area: Social/Personality.

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 280, or consent of instructor. Breadth Area: Elective.

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. Methodological issues important to underrepresented populations will be emphasized. Prerequisite: PSY 280 or permission of instructor. Upper Division Elective.

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, international relations and cross-cultural perspectives. Prerequisite: PSY 250, PSY 280 or permission from the instructor. Breadth Area: Social/Personality.

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. Methodological issues relevant to underrepresented populations area emphasized. Prerequisite: PSY 280 or consent of the instructor. Corequisite: PSY 445L. Upper Division Elective.

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 280 or consent of the instructor. Corequisite: PSY 445. Upper Division Elective.

PSY 446 COGNITIVE PSYCHOLOGY (4)

An introduction to theory and research in human information processing. Topics include attention, memory, mental representation, imagery, problem solving, reasoning, language, higher mental processes and cross-cultural variations. Breadth Area: Cognitive/Physiological.

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 mediation of emotion and behavior. The role of culture will be emphasized. Prerequisite: PSY 250. Breadth Area: Cognitive/Physiological.

PSY 448 COGNITIVE DEVELOPMENT (4)

This course covers theories and research on cognition from infancy through adolescence. 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 410, PSY 302 or consent of instructor. Breadth Area: Developmental.

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 and the effects of metabolic processes, brain lesions, and various drugs on behavior. Breadth Area: Cognitive/Physiological.

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 technology related to health and wellness. Breadth Area: Cognitive/Physiological.

PSY 456 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 practicum experience. Prerequisite: PSY 454. Breadth Area: Cognitive/Physiological.

PSY 461 PERSONALITY (3-4)

Examines individual differences in the ways people behave, think, and feel and the psychological mechanisms that drive these patterns of behavior. Course will examine personality from a variety of perspectives including psychoanalytic, humanistic, trait, biological, learning, and social cognitive theories, as well as contemporary research in personality (e.g., measurement, change, and judgment). Prerequisite: junior-level standing. The role of culture will be emphasized. Breadth Area: Social/Personality.

PSY 466 JUNGIAN PSYCHOLOGY (4)

Exploration of Jung and contemporary Jungian thinkers. Examines individuation, dreams, image, symbol, archetype, self, creativity, imagination, typology, and the transcendent function. Prerequisite: junior-level standing. Breadth Area: Holistic.

PSY 470 PSYCHOLOGY OF FILM (4)

A study of the contemporary medium of film through the use and application of psychological theory and research. Breadth Area: Holistic.

PSY 471 PSYCHOLOGY OF RELIGION (4)

Explores psychological research, theory, practice, and narratives in religion and spirituality. Topics include links between religion and: biology, development, personality, creativity, morality, prejudice, health and coping, nature and ecology, community, violence and culture. Breadth Area: Holistic.

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. May be repeated for credit. A maximum of 8 units of special study and internship may be applied to the psychology major. Cr/NC only. Upper Division Elective.

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: Consent of instructor. May be repeated for credit. A maximum of 8 units of special study and internship credit may be applied to the psychology major. Cr/NC only. Upper Division Elective.

PSY 483 ADVANCED TEACHING INTERNSHIP (1-4)

Advanced skills in teaching internship. May be repeated for credit. A maximum of 8 units of special study and internship credit may be applied to the psychology major. CR/NC only. Prerequisites: PSY 482 and consent of instructor. Upper Division Elective.

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 and culture in promoting a transition to an ecologically sustainable society. Field trips to be arranged. Breadth Area: Holistic.

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, Breadth Area and current unit offering. May be repeated for credit.

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. Upper Division Elective.

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. Strong preference is placed on projects with cross-cultural perspectives. These should be completed and filed during the add/drop period. May be repeated for credit. A maximum of eight units of Special Study and Internship combined may be credited toward the psychology major. Prerequisite: upper-division Psychology major or consent of instructor. Cr/NC only. Upper Division Elective.

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. CR/NC only. A maximum of 8 units of special study and internship credit may be applied to the psychology major. Prerequisites: upper-division Psychology major and consent of instructor. Upper Division Elective.

PSY 497 INTERDISCIPLINARY SEMINAR (2-4)

Exploration of basic social problems. Resource persons from other disciplines may participate. Themes and topics vary. Upper Division Elective.

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. May be repeated for credit. 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. Upper Division Elective.

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)

Continuation of PSY 511A. 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 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, sandplay, 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)

Continuation of Psy 542A. 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, ecopsychology, religion, and art history. Limited to students in the Depth Psychology Program.

PSY 543B CROSS-CULTURAL MYTHOLOGY AND SYMBOLISM (1-4)

Continuation of PSY 543A. Limited to students in the Depth Psychology Program.

PSY 551 DIRECTED READING (1-4)**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 psychological and qualitative research methods. Students design 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 581 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 595 SPECIAL STUDIES (1-4)

Students formulate plans for a project and present them to a faculty member for sponsorship. Prerequisite: graduate standing and consent of instructor. Cr/NC only.

PSY 597 CULMINATING PAPER TUTORIAL (1-4)

Provides guidance and feedback in the process of writing a publishable article in the student's field of expertise. Required for M.A. students.

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.

Science (SCI)

SCI 120A A WATERSHED YEAR (6)

Lecture, 5 hours. Laboratory, 3 hours. This is the first semester of a year-long integrated transition course for first-time freshmen, which immerses students in real-world issues of environmental sustainability through hands-on work and outdoor field experiences focusing on Sonoma County's watershed. Prerequisite: GE ready in Mathematics. Completion of SCI 120A earns GE Lab credit and 6 total GE credits in A3 (2 units), B2 (2 units), B4 (2 units).

SCI 120B A WATERSHED YEAR (6)

This is the second semester of a year-long integrated transition course for first-time freshmen, which immerses students in real-world issues of environmental sustainability through hands-on work and outdoor field experiences focusing on Sonoma County's watershed. Prerequisite: Successful completion of SCI 120A. Completion of SCI 120B earns 6 total GE credits in A3 (2 units), B2 (2 units), and B4 (2 units).

SCI 150 INTRODUCTION TO CAREERS IN HEALTH 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)

Social Sciences (SSCI)

SSCI 299 SOPHOMORE SEMINAR: HOW TO THINK LIKE A SOCIAL SCIENTIST (3)

A meta-disciplinary approach to social science literacy for second-year students, developing knowledge of themselves as individuals and applying that knowledge as active, engaged citizens. Students learn to ask questions, consider evidence, analyze data, and recognize theories and methods used by social scientists, as well as to explore their own individual direction for majors and career. Meets GE Area E

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 444 PEER FACILITATOR (1-3)

Provides students experience in assisting an instructor in SSCI 299 by attending lecture, doing course-related research, working with small groups of students, and assisting the instructor(s) with course administrative tasks. Prerequisite: upper-division or graduate standing and consent of the instructor. May be repeated once for credit. Cr/NC only

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.

Sociology (SOCl)

SOCl 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 Level D1 (Individual and Society).

SOCl 263 SOCIOLOGY OF RACE AND ETHNICITY (4)

This course 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. Satisfies GE Area D1 (Individual and Society), Ethnic Studies.

SOCl 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.

SOCl 301 STATISTICS FOR SOCIOLOGISTS (4)

An introduction to descriptive and inferential statistics to test hypotheses in the social sciences. Emphasis on data collection techniques, statistical analysis and interpretation using SPSS, as well as written reporting of results. Satisfies the requirement for statistics in the sociology major. Prerequisite: SOCl 300 strongly recommended.

SOCl 306 CAREER PLANNING FOR SOCIOLOGY MAJORS (4)

Explores careers related to sociology from a sociological perspective, particularly careers undergraduate students can enter. Careers examined across four areas: private/for-profit sector, nonprofit foundations, public sector (city, county, state and federal government), and academia (including graduate school). Professional skills and portfolio also developed. Meets Sociological Experience requirement for majors.

SOCl 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.

SOCl 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. Cross-listed as CCJS 441.

SOCl 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.

SOCl 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. Cross-listed as GERN 317. Satisfies GE Area E (Integrated Person).

SOCl 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. Cross-listed as GERN 319. Satisfies GE Area D1 (Individual and Society).

SOCl 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. Satisfies GE Area D1 (Individual and Society).

SOCl 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.

SOCl 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. Cross-listed as GERN 332.

SOCl 336 INVESTIGATIVE SOCIOLOGY (4)

A service-learning course emphasizing development of sociological research for popular press publication. Students learn interviewing techniques; review sources of public information; use freedom of information laws; write and investigate social justice news stories using sociological research methods; and prepare reports for popular press publication. Meets Sociological Experience requirement for majors.

SOCl 340 DRUGS AND SOCIETY (4)

Analyzes drug use, misuse, and abuse in society using sociological theories. Explores drug policies and control of drug use, current sociological drug research, and how the media shapes drug perceptions. Highlights various legal and illegal drugs and their societal consequences. Cross-listed as CCJS 350.

SOCl 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.

SOCl 347 SOCIAL STRATIFICATION (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.

SOCl 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.

SOCl 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 organized and constrained.

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. Cross-listed as CCJS 497.

SOCI 371 SOCIOLOGY OF CONSPIRACIES (4)

A critical analysis of conspiracies in society using Power Elite and State Crimes Against Society theories applied to modern historical events using cultural, social psychological, public propaganda, and power perspectives: topics include political assassinations, election fraud, threats of terrorism, 9/11, and permanent war.

SOCI 375 SOCIOLOGICAL THEORY (4)

A critical examination of the writings of major classical and contemporary 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)

A critical sociological analysis of the political processes in the United States and the world. In-depth coverage of power elite, class dominance and deep state political theories of governmental decision-making. Emphasis on the political globalization of the world including the US/NATO empire of power.

SOCI 381 POPULATION AND SOCIETY (4)

An introduction to problems of population growth and the interrelationships between population and social organization. Discusses concepts related to the measurement and explanation of historical and contemporary trends in aging, birth rates, marriage, divorce, mortality, and migration/immigration.

SOCI 382 SOCIAL MOVEMENTS AND COLLECTIVE BEHAVIOR (4)

Social movements are a significant source of social change in modern societies. This course analyzes the structure and dynamics of social movements, with attention to the roles of organizations, resources, leadership, recruitment, commitment, values, ideology, political culture, and counter movements. Case studies will emphasize the civil rights, women's rights, and environmental movements in the United States.

SOCI 383 SCIENCE, TECHNOLOGY, AND SOCIETY (4)

An introduction to the social study of science and technology. Focuses on the transformative impacts of technologies on society, as well as related political and cultural values. Critical examination of innovations such as the industrial revolution, information technology, biotechnology, sustainable development, and the scientific process itself.

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.

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.

SOCI 425 URBAN SOCIOLOGY (4)

Examines cities and metropolitan areas, including the social consequences of processes of urbanization and urbanism. Emphasis on the social structural, cultural, and social psychological characteristics of urban life; spatial, economic and political trends; and possible solutions to inequalities and planning challenges.

SOCI 431 SOCIOLOGY OF RELIGION (4)

Study of world religions (Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism), tribal beliefs, and American sects and denominations. Theories of religious development, values, change, and effects on society. Satisfies GE Area C2 (Literature, Philosophies, Values).

SOCI 434 CINEMA AND SOCIETY (4)

A critical application of major sociological concepts, such as race, gender, class, and sexuality to popular and independent film. Includes discussion of how films affect the framing of social issues and societal and cultural norms.

SOCI 440 SOCIOLOGY OF REPRODUCTION (4)

An exploration of sociological perspectives on human reproduction. Topics may include gendered constructions of reproduction, the social implications of reproductive technologies, historical and contemporary perspectives on normal pregnancy, childbirth and infant feeding, and the politics of reproductive justice. Cross-listed with WGS 440.

SOCI 443 SOCIAL POLICY IN THE 21ST CENTURY (4)

Examination of social policy issues (poverty, health, employment, and family) and the social, political, and economic contexts that influence the content and processes of policy development and implementation. Social policies will be explored at micro-, meso-, and macro- (national, and international) levels.

SOCI 445 SOCIOLOGY OF CHILDHOOD AND ADOLESCENCE (4)

Examines childhood and adolescence in various historical and social contexts. Explores children's agency, how institutions socialize and control youth and social problems confronting young people. Critically evaluates strategies for conducting research about, with and by youth.

SOCI 449 SOCIOLOGY OF POWER (4)

A structural analysis of the origins, development and applications of power. A comparative historical analysis of the institutions of power leading to contemporary systems of private capital, the trans-national capitalist class, and police/military states. Included also is a review of community mobilizations by people successfully challenging structures of power.

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. Cross-listed 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.

SOCI 461 SOCIAL WELFARE AND SOCIAL WORK (4)

Examines contemporary social welfare and services. Discussion of welfare market (government, private sector, nonprofit) and economic market institutions and social services. Overview of social services issues impacting families as well as persons who are unemployed, disabled, sick, or poor. Recommended for students considering social work, counseling, or human services.

SOCI 463 ORGANIZATIONS AND SOCIETY (4)

Sociological analysis of organizations and their social environment. Introduction to key theories, concepts, methods, and research on organizations in society.

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.

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.

SOCI 482 SOCIOLOGY OF ENVIRONMENT (4)

This service-learning course examines environmental justice, fairness and equity on local-to-global scales; relationships of society to the nonhuman world and analytical critiques of nature-society dualisms; and environmental policy and impacts of local-to-global economics, including the green economy and jobs. Meets Sociological Experience requirement for majors.

SOCI 485 ORGANIZATIONS AND EVERYDAY LIFE (4)

Use of organizational ethnographies and other qualitative research on organizations to illustrate application of organizational theories and perspectives to settings and circumstances likely to be encountered in everyday social life. Includes assessment of organizational ethnography as a research method.

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 for up to 8 units, but only 4 units total of SOCI 490, 493, and 495 may be used toward the major or minor. 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 for up to 8 units, but only 4 units total of SOCI 490, 493, and 495 may be used toward the major or minor. 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 up to 8 units, but only 4 units total of SOCI 490, 493, and 495 may be used toward the major or minor.

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 SPECIAL TOPICS (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. Required for majors. Open only to Sociology majors that have applied for graduation.

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 or minor. 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.

Spanish (SPAN)

SPAN 101 BASIC SPANISH, FIRST SEMESTER (4)

Spanish for beginners. Elementary oral expression and fundamentals of grammar; cultural readings and beginning practice in composition. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

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, SECOND SEMESTER (4)

Spanish for beginners, second level. Elementary oral expression and fundamentals of grammar; cultural readings and practice in composition. Prerequisite: SPAN 101 or equivalent. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

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. 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. Prerequisite: SPAN 102 or equivalent. Satisfies GE, category C3 (Comparative Perspectives and Foreign Languages).

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. Prerequisite: SPAN 201 or equivalent. Satisfies GE, category C3 (Comparative Perspectives and Foreign Languages).

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 students' proficiency to the advanced level. Course will highlight selected points of grammar structure and form in the context of meaningful engagement with the language. Offered each semester. Prerequisite: Spanish 202. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

SPAN 300H ADVANCED SPANISH LANGUAGE FOR NATIVE/HERITAGE SPEAKERS (4)

SPAN 300H is designed for native/heritage speakers of Spanish with communicative competence in speaking and understanding Spanish but little formal schooling in the language. SPAN 300H draws on the student's bilingual linguistic and cultural resources to build the knowledge, self-confidence and engagement to successfully use Spanish in academic settings. The course fulfills GE area C3.

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. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

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 study of short forms of literature with the objective of increasing vocabulary, reading for greater understanding, and content analysis. Introduction to concepts and principles of literary analysis (structure, character development, social context, point-of-view, discourse). Offered each Fall semester. Prerequisite: SPAN 202. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

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, readings, discussion, and writing. Offered each Fall semester. Prerequisite: SPAN 300. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

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. Offered each Spring semester. Prerequisite: SPAN 300. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

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. May be repeated once for credit.

SPAN 400 SPECIAL TOPICS IN LINGUISTICS (4)

Topics in Spanish linguistics, which may include sociolinguistics, discourse analysis, historical linguistics, and applied linguistics. Prerequisite: SPAN 304, or permission of instructor. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages). May be repeated for credit.

SPAN 401 PENINSULAR LITERATURE (4)

A detailed study of representative authors, genres, periods, or regions. Requires discussion in class and a term paper. Offered each Fall semester. Prerequisites: all 300-level classes or permission of instructor. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages). May be repeated for credit.

SPAN 402 LATIN AMERICAN LITERATURE (4)

A detailed study of representative authors, genres, periods, or regions. Requires discussion in class and a term paper. Offered each Fall semester. Prerequisites: all 300-level classes or permission of instructor. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages). May be repeated for credit.

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. Offered every other Spring semester. Prerequisites: all 300-level classes or permission of instructor. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages).

SPAN 427 SPANISH TEACHING METHODOLOGIES (4)

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. Prerequisites: junior-level 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 (extensive portfolio or research paper), presented in a public setting or a scheduled class presentation, and serving as an exit assessment for graduation. Offered each Fall semester. Prerequisites: completion of all 300-level classes and one class at the 400-level. May be repeated for credit.

SPAN 491 SEMINAR IN LITERATURE (4)

Capstone seminar focusing on a representative theme in the field of literature. Requires student discussion and participation. Requires completion and presentation of a final project (extensive portfolio or research paper), presented in a public setting or a scheduled class presentation, and serving as an exit assessment for graduation. Offered each Spring semester. Prerequisites: completion of all 300-level classes and one class at the 400-level. Satisfies GE Area C3 (Comparative Perspectives and Foreign Languages). May be repeated for credit.

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. May be repeated once for credit.

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. May be repeated once for credit.

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 once for credit when topics vary.

Theatre Arts & 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 Area C1 (Applied Arts Combining Studio and Theory).

THAR 105 TECHNICAL THEATRE WORKSHOP (1)

A production class in which students receive credit for backstage and technical work in plays and dance concerts directed by faculty members and guest artists. May be repeated 6 times for credit.

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 5 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.

THAR 116 ACTING STYLES: COMEDY IMPROVISATION (1)

Class will focus on a particular acting style, e.g. comedy, commedia del arte, farce, or improvisation. May be taken 4 times for credit.

THAR 120A ACTING FUNDAMENTALS (1)

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 teach basic concepts for acting. May be taken 3 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. Special emphasis is placed on scene study to teach basic acting concepts and stage presence. Open to non-majors and Theatre minors. Recommended for singers. First of a seven-course sequence for Acting Concentration majors. May be taken 3 times for credit.

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 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 160A HUMANITIES LEARNING COMMUNITY (4)

THAR 160 A/B is a year long course, which features weekly lectures and small seminars. It delves deep into the nature of dance, theatre, and live performance, and asks the student to explore the nature of creativity itself. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

THAR 160B HUMANITIES LEARNING COMMUNITY (4)

THAR 160 A/B is a year long course, which features weekly lectures and small seminars. It delves deep into the nature of dance, theatre, and live performance, and asks the student to explore the nature of creativity itself. It constitutes a Humanities Learning Community (HLC) for any first-year student. The learning objectives of the HLC will satisfy A3 (Critical Thinking) and C3 (Comparative Perspectives and/or Foreign Languages) GE Areas.

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 repeated for credit.

THAR 199 STUDENT-INSTRUCTED COURSE (1-3)

May be repeated for credit.

THAR 202 INTRODUCTION TO THE HISTORY OF DRAMA AND DANCE: ORIGINS TO 1800 (4)

First of a two course sequence, 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. May be taken independently from THAR 203. The course relates the theatre's past to how theatre is practiced today. Satisfies GE Area 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 the 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. May be taken independently from THAR 202. Satisfies GE Area C1 (History of the Fine Arts).

THAR 210 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 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. Prerequisites: THAR 120B or equivalent or consent of Director of the Acting Program. Open to THAR sophomores, juniors and seniors.

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 120B and 220A or equivalent and consent of instructor.

THAR 224 ON CAMERA: ACTING & PRODUCTION (2)

Acting and performing in front of the camera, although similar to theater, is distinctive in approach and technique. This course is an introduction to film and TV acting and offers the experience of working in single camera acting techniques and understanding the relationship between the camera and the performance. The course also teaches production skills in camera use and operation, and sound recording. May be taken two times for credit. Prerequisite: THAR 120B and THAR 220A or by consent of the Director of the Acting Program.

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. Prerequisite: THAR 230 (or corequisite) 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 4 times for credit. Prerequisite: THAR 161 or consent of instructor.

THAR 273 LITERATURE AND PERFORMANCE: CRITICAL AND CREATIVE READINGS (4)

This course explores the relationship between literature and performance, reading and rendition, the interaction between the literary skills of close reading, embodied reading, and possible productions of these readings on the page, stage or screen. Satisfies GE Area C2. Only one course numbered 273 in the Arts & Humanities will be considered for credit. Prerequisite: completion of GE Category A2 (Engl 101 or ENGL 100B) required.

THAR 275 CONTEMPORARY PLAYS AND PLAYWRIGHTS (3)

This class is an exciting and dynamic way to explore contemporary American play writing and its 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 politics. May be repeated for credit.

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 Area C1 (History of the Fine Arts). For juniors and seniors only (Also available as periodic trips to New York). May be taken 2 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 6 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 6 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 6 times for credit. By audition or consent of instructor.

THAR 304 PRODUCTION DRAMATURGY (1-3)

This course teaches practical, hands-on rehearsal dramaturgy as practiced in the professional theatre. Students are assigned to work closely on a production in the department season, and implement story analysis, in-depth research, and information design to help shape the production. Key elements of dramaturgical work include concept work with the director, research for cast, program notes, outreach talks, study guides, and other possible outcomes based on the production's needs. May be repeated for credit.

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. May be repeated for credit.

THAR 310B INTERMEDIATE DANCE BLOCK (2-5)

Continuation of THAR 310A. Prerequisites: THAR 310A and consent of instructor. May be repeated for credit.

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. Prerequisites: THAR 120B, 220A, 220B, 145A, 145B, ENGL 339. May be repeated once for credit.

THAR 320B INTERMEDIATE ACTING BLOCK (5)

Continuation of THAR 320A. See description above. Prerequisites: THAR 320A or equivalent and consent of instructor. May be repeated once for credit.

THAR 321A INTERMEDIATE TECHNICAL BLOCK/FOUNDATIONS (2)

Technical concentration students participate in the foundations, script analysis, and design projects. Prerequisites: THAR 143A and B, THAR 144A and B, THAR 244, and consent of instructor.

THAR 321B INTERMEDIATE TECHNICAL BLOCK (2)

Technical concentration students participate in the foundations, script analysis, and design projects. Prerequisites: THAR 143A and B, THAR 144A and B, THAR 244, THAR 321A, and consent of instructor. May be repeated once for credit.

THAR 322A 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 twice for credit. Prerequisites: THAR 120B or equivalent 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 twice for credit. Prerequisites: THAR 120B, THAR 220A or 322A or equivalent, and 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 headshot needs. 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. 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. 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 3 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. Prerequisite: THAR 203 or consent of instructor. May be taken out of sequence.

THAR 371A HISTORY OF DANCE A (3)

Survey of the 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 the history of theatrical dance in the 20th century, including global influences on the most recent dance forms. Prerequisite: THAR 371A or consent of instructor.

THAR 373 DANCES OF THE WORLD (4)

Examination of dance as cultural expression in diverse global dance forms. This course focuses on ways in which social, ritual, and theater dance styles create and reflect cultural identity, define tradition and embrace innovation, and intersect in a global world. Satisfies upper-division GE Area C3.

THAR 374 THEATRE OF THE WORLD (4)

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. This course is required for General Theatre Degree majors and also satisfies upper-division GE Area C3.

THAR 375 RACE, GENDER, AND PERFORMANCE (3)

This course explores how contemporary theater artists construct cultural identity, with a particular focus on gender, sexuality, race, and ethnicity. Students engage in both written analysis and performance work. Topics covered include culturally specific modes of ritual, belief, and performance; representation of mixed-race identities; and oppressive and resistant strategies in casting and production.

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 377 PLAYWRITING II (3)

Stage writing for more experienced playwrights. Students will experiment with lengthier forms and new methods for first drafts. Work is performed in an end-of-term festival. Prerequisite: THAR 376 or permission or instructor.

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 model 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 379 RESEARCH PRACTICE FOR THEATRE AND DANCE (3)

This course teaches professional research methodology as a means to artistry in the creation of dance and theatre, with applications to performance, design, criticism, history, and dramaturgy. Research avenues include creative and biographical material on key artists, historical and cultural context, locating imagery (print, digital, multimedia), sound/music sourcing, and materials specific to unique production needs. The course addresses best practices in information competence and focuses on research as an art as much as a pragmatic skill. May be taken twice for credit.

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. 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. May be taken 3 times for credit.

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-level 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. May be repeated for credit.

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 320A and 320B or equivalent. THAR 320 and THAR 420 are taught concurrently. May be repeated once for credit.

THAR 420B ADVANCED ACTING BLOCK (2-5)

Continuation of THAR 420A. Prerequisites: THAR 320A, 320B and 420A, or equivalent, and consent of instructor. May be repeated once for credit.

THAR 421A ADVANCED TECHNICAL BLOCK/FOUNDATIONS (2)

Technical concentration students participate in the foundations, script analysis, and design projects. Prerequisites: THAR 143A and B, THAR 144A and B, THAR 244, THAR 321A, THAR 321B, and consent of instructor.

THAR 421B ADVANCED TECHNICAL BLOCK/FOUNDATIONS (2)

Technical concentration students participate in the foundations, script analysis, and design projects. Prerequisites: THAR 143A and B, THAR 144A and B, THAR 244, THAR 321A, THAR 321B, THAR 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.

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 have 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.

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 3 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 6 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, lighting, or set or costume construction, in a commercial environment where the evaluation of the work is under professional rather than faculty supervision. 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. May be repeated for credit.

THAR 499 INTERNSHIP: THEATRE MANAGEMENT (1-4)

The student will gain practical experience in various management areas of the theatre. Individual internships may include public relations, publicity, programming, scheduling, box office management, funding, sales, and budgeting. The unit value will be determined by each internship. May be repeated for credit.

University Courses (UNIV)

UNIV 50 WRITING SKILLS (0)

This course focuses on developmental and learning skills in writing, including language mechanics, sentence patterns, paragraph patterns, spelling, and 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 (1-3)

Designed to foster a supportive learning community, provide mentoring, and 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 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. To satisfy GE Areas A3 and C3, students must take UNIV 150B the following semester.

UNIV 150B 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 Areas A3 and C3 when taken immediately after UNIV 150A.

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 takes students through an exploration of leadership and students' roles and responsibilities as active citizens. It achieves this goal through an extensive examination of self, working with and understanding others, and ultimately, creating positive change in one's community. The course provides the critical elements of analytical and intellectual thought, and careful examination and reflection of core issues in the practice of leadership. These objectives will be achieved through open discussion, self-assessment, experimental exercises, and analytical observation of real-life leadership practice. Course satisfies GE Area E (The Integrated Person).

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 cross-listed 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 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)

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 Area D1.

WGS 280 WOMEN'S BODIES: HEALTH AND IMAGE (4)

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 health advocacy, gendered representations, women's health movements, the gender politics of medical research, and sexual and reproductive health. Satisfies GE Area E.

WGS 285 MEN AND MASCULINITY (4)

This course examines construction of masculinity across axes of race, sexuality, class, nation, and ability. Utilizing a multidisciplinary perspective, this course addresses various theories of masculinity and masculinity's impact on peoples lives in areas such as relationships, media representation, work, culture, development, and health. Satisfies GE Area 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 302 QUEER STUDIES LECTURE SERIES (1)

A weekly lecture series offering presentations and discussions of ethical, literary, activist, intellectual, and artistic approaches to society and culture from lesbian, gay, bisexual, transgender, and queer perspectives. The lectures are open to the community. May be repeated for credit. Satisfies GE Area C2.

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 with different topic.

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. Originates in Psychology. Cross-listed 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 Area 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. Cross-listed as HIST 345.

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. Cross-listed as AMCS 370.

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 a 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 Area 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 of organizations, resources, leadership, recruitment, commitment, values, ideology, political culture, and counter movements. 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 counter movements, 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 255, 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. May be repeated for credit.

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 405 PSYCHOLOGY OF GENDER (4)

Explores gender through a social psychological perspective. Topics include gender socialization, the structural function of gender stereotypes, masculinity, and gender discrimination. Course originates in the Psychology Department and is cross-listed as PSY 405.

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. Prerequisite: WGS 255, WGS 280, WGS 285, WGS 350, or WGS 375.

WGS 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. Prerequisites: course restricted to WGS Majors and Minors. Course originates in CCJS, and is cross-listed as CCJS 430.

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. Cross-listed as SOCI 440.

WGS 449 GENDER AND SEXUALITY IN LATIN AMERICA (4)

This course examines changing definitions, institutions, and behaviors related to gender, sexuality, and the family in Latin America from indigenous civilizations to contemporary societies. Topics include the transition from European colonies to nation-states, and the social, economic, and political changes in Latin America. Course originates in History Department and is cross-listed as HIST 449.

WGS 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. May be repeatable once for credit. This course is a cross-list with ENGL 451.

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. Cross-listed as HIST 447.

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 255, WGS 280, WGS 285, WGS 350, or WGS 375.

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. May be repeated for credit.

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. May be repeated for credit.

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).