### Course Descriptions

#### American Indian Education

**UPPER DIVISION**

**AIE 330. History of Indian Education** (3). From first contact with Europeans to contemporary times. Emphasis: how federal policy shaped educational policy for American Indians. [DCG-d.]

**AIE 335. Social & Cultural Considerations** (3). How social and cultural factors affect educational experiences of American Indian students attending mission, BIA boarding, or public schools. Apparent learning problems. [DCG-d.]

**AIE 340. Instructional Practices in American Indian Education** (3). Analyze and implement developmental theory, pedagogical models, and indigenous knowledge systems. [Pre-requisite: Completion of all other minor requirements: AIE 330, AIE 335; (CD 269, CD 253, or CD 255); (NAS 340, NAS 345, AIE 330 or AIE 580). DCG-d.]

**AIE 380. Special Topics** (1-3). Topics of current interest in education, American Indian health, and tribal professional issues. [Rep.]

**AIE 499. Independent Study** (1-3). Directed study, reading, conference, research on selected problems in American Indian education.

**GRADUATE**

**AIE 580. Special Topics** (1-3). Topics of current interest in education, American Indian health, and tribal professional issues. [CR/NC. Rep.]

Please see courses.rotations.humboldt.edu for five-year planned course offerings.

#### Anthropology

**LOWER DIVISION**

**ANTH 103. Biological Anthropology** (3). Introduction to human evolution and adaptation through scientific principles, evolutionary theory, genetic inheritance, nonhuman primates, fossil record, forensics, and evolutionary medicine. Not intended for most science/natural resource majors. [Weekly: 2 hrs lect. 3 hrs lab. GE B.]

**ANTH 104. Cultural Anthropology** (3). World’s diverse cultures. Richness of human life in different times and places. Multicultural nature of today’s world. [GE D.]

**ANTH 302. Anthropology of Religion** (3). Theoretical perspectives and modes of analysis of religious belief systems and practices. Focus: preliterate and peasant religions, including ritual, magic, and symbols systems. [DCG-n, GE D.]

**ANTH 305. Human Evolutionary Health** (3). How the biology, behavior, diet, strategies, and experiences of our ancestors are reflected in and affect us today; examine human biocultural diversity within the context of evolutionary history. [Rec: LD GE Area B: Life Forms. DCG-n, GE B.]

**UPPER DIVISION**

**ANTH 307. World Heritage & Archaeology** (3). Studies of diverse human values and social systems embedded in cultures of a world region through investigations in archaeology and cultural anthropology. [Rep for each different region offered. DCG-n, GE D.]

**ANTH 310. Theory & History in Anthropology** (4). Examines the shifting paradigms driving anthropological theories and ethnographic research from the foundations of the discipline to the present. [Pre-requisite: ANTH 104; ANTH 103(C) or ANTH 105(C). ANTH 210 (C).]
ANTH 316. Anthropology & Development [4].
Traditional cultures and their economies. How these societies have adjusted to world economy. Analyze social costs/benefits of economic development.


ANTH 318. Ethnography [4]. Problems and techniques of describing culture and representing the “other”: Critical look at the process and politics of descriptions anthropologists craft. [Pre-requisite: ANTH 104].

ANTH 328. Social Anthropology Lab [1-4]. Training in research techniques, including field investigations, appropriate for various topical areas of social and cultural anthropology. [Concurrent enrollment required for certain courses. Rep.]

ANTH 329. Selected Topics in Social Anthropology [1-4]. Seminars provide fresh anthropological perspective on topics such as activism, art, community, environment, film, food, folklore, health, media, medicine, migration, politics. Rep.

ANTH 330. Method & Theory in Biological Anthropology [4]. Introduces major research areas within biological anthropology, including their fundamental theories, scientific concepts, and methods of data collection and analysis. [Pre-requisite: Lower Division GE Area B Life Forms.]

ANTH 331. Paleoenthropology [4]. Evolutionary theory, the behavior, ecology, and morphology of human ancestors, and the emergence of our species. This course is framed by the major debates and rivalries within the discipline. [Pre-requisite: Lower Division GE Area B Life Forms.]

ANTH 332. Skeletal Biology and Forensics [4]. Intensive study of human osteology and skeletal biology, including techniques for creating biological profiles and estimating age, sex, stature, trauma, and disease; application to legal investigations and human rights. [Pre-requisite: Lower Division GE Area B Life Forms.]

ANTH 333. Primate Adaptation & Evolution [4]. Nonhuman primate evolution and adaptation; what makes primates unique mammals; models for big evolutionary questions; systematics; anatomy; behavioral ecology and strategies of extant primates; biogeography; primate origins; adaptive radiation; fossils. [Pre-requisite: Lower Division GE Area B Life Forms.]

ANTH 334. Anthrology, Ecology & Conservation [4]. Interrelationships between humans and the environment, with an eye to conservation. Topics such as: ecology of human and nonhuman primate habitats; biogeography, biodiversity, biotic interactions; globalization; population growth; climate change. [Pre-requisite: Lower Division GE Area B: Life Forms.]

ANTH 338. Biological Anthropology Lab [1]. This lab course focuses on developing laboratory methods and analytical skills used in biological anthropology, while introducing the basics of comparative human anatomy and physiology.

ANTH 339. Special Topics in Biological Anthropology [1-4]. Seminars on topics such as: advanced bioanth methods, evolutionary theory, human osteology, functional/evolutionary anatomy, primate evolution, ecology, conservation, nutrition, medical anthropology, epidemiology, epigenetics, zooarchaeology, taphonomy and bioarchaeology. [Pre-requisite: Lower Division GE Area B Life Forms.]

ANTH 340. Language & Culture [4]. Scope and variety of linguistic research. Emphasis on cross-cultural comparison and relation of languages to culture.

ANTH 341. Anthropological Linguistics [4]. Introduces formal practice of anthropological linguistics. Structure of human languages; language variation and change; acquisition and meaning. Methodologies include phonetics, phonemics, morphology, and syntax. [Pre-requisite: ANTH 104 (C)].

ANTH 350. Method & Theory in Archaeology [4]. Roles of theory and scientific method in reconstructing past cultures, culture process, and change. [Pre-requisite: ANTH 105 or IA.]

ANTH 351. Archaeological Materials Analysis [4]. This course will serve as a hands-on introduction to interpreting artifacts from sites. It will cover phases of analysis including: defining problem, attributes, cataloguing data, analyzing data, and interpreting results.

ANTH 352. Experimental Archaeology [4]. This course will introduce students to experimental archaeology, or the scientific manner in which archaeologists engage in controlled experiments in order to better understand life in the past.

ANTH 353. Archaeology of Warfare [4]. This course will explore the origins/causes/consequences of warfare. We will gain an understanding of the range of variation in which warfare and human societies have influenced one another.

ANTH 354. Cultural Resource Management [4]. Vocational-oriented introduction to applied archaeology, Ethical, legal, and technical aspects of conserving prehistoric and historic cultural resources of the US.

ANTH 357. Field Archaeology [1-6]. Field experience in local area or in summer field school. Content varies: surface survey, mapping, or excavation. May involve placement as volunteer with federal or state agency. [Rep.]

ANTH 358. Archaeology Lab [1-3]. Archaeology lab activities. [Rep.]

ANTH 359. Special Topics in Archaeology [1-4]. Seminars in selected subfields (concentrations or theory): environmental archaeology, geoarchaeology, archaeoastronomy, zooarchaeology, historical archaeology, ethnography. [Check with faculty for content. Rep.]


ANTH 390. World Regions Cultural Seminar [4]. Culture, values, and social interaction in cultures of a world region (North America, Latin America, Oceania, Asia, Africa). Analyze cultural integration, contact, change, and development in historical and contemporary contexts. [Rep.]

ANTH 394. Regional Survey of North American Archaeology [4]. Intensive survey of archaeology in a North American region from the Paleoindian to Spanish contact and methods used to reconstruct this past. Regions vary by semester.


ANTH 410. Anthropology Capstone [4]. Capstone seminar on contemporary anthropological theory designed to prepare students for an academic or applied career using their anthropology degree. Final course projects may reflect students’ sub-disciplinary interests. [Pre-requisite: ANTH 310.]

ANTH 482. Anthropology Internship/Lab Research [2]. Engages students at HSU anthropology labs, local museums, community organizations, government agencies, and other institutions to enhance students’ knowledge of applied anthropology contexts, methodologies, institutional cultures, and work environments. [Rec: ANTH 210. Rep.]

ANTH 483. Anthropology Teaching & Leadership [2]. Exploration of pedagogy for teaching and leadership within and beyond anthropology; students actively engage in teaching and/or leadership roles as an integral component of the course. [Pre-requisite: ANTH 210; sophomore standing or above. Rec: ANTH 103, ANTH 104, ANTH 105. Rep.]

ANTH 485. Senior Seminar [1-4]. Advanced topics with relevance for the entire anthropology discipline. [Check with faculty for course content and prerequisites. Rep.]

ANTH 490. Senior Thesis [1-4]. Supervised experience formulating research proposals and writing research reports. [Pre-requisite: IA. Rep.]

ANTH 495. Field Projects in Anthropology [1-4]. Supervised field research. [Rep.]

ANTH 499. Independent Study [1-4]. Selected topics for advanced students. [Pre-requisite: IA. Rep.]

GRADUATE

ANTH 618. Qualitative Methods & Analysis [1-3]. Gain experience in qualitative research methods and analysis (participant observation, interviews, artifact and qualitative data analysis). Students learn to collect and analyze qualitative data as well as present research results. [Pre-requisite: ANTH 670 and ANTH 671.]
ANTH 621. Anthropology & Globalization [1-3]. Examines fractured nature of globalization in diverse political economies, with focus on cultural transformation and resistance, changing paradigms of ‘development’ and indigenous critiques. [Local, regional, and global markets and institutions.]

ANTH 637. Applied Biological Anthropology [1-3]. In-depth study of modern approaches and growing fields of interest across biological anthropological subfields, such as genetics, stable isotope analysis, paleopathology, nutrition and foraging ecology, and functional morphology. [Pre-requisite: enrollment in anthropology MA program.]

ANTH 654. Cultural Resources Management [1-3]. In-depth exploration of skills needed to function in a professional cultural resource management (CRM) environment. Includes historical development of CRM, contemporary regulatory framework, project planning, proposal writing, archival research, project management, and reporting. [Pre-requisite: enrollment in applied anthropology MA program.]

ANTH 670. Introduction to Applied Anthropology [2]. Introduction to anthropological perspectives, methods, theories and practices applied to human and environmental problems in academic, professional and global contexts; evaluation and debate of current issues; development of research interests. [Pre-requisite: enrollment in applied anthropology MA program. Co-requisite: ANTH 671.]

ANTH 671. Methods in Applied Anthropology [3]. Intensive overview of methods and materials used within applied archaeological, biological, and cultural anthropology. Topics include ethnographic data collection, structured observation, interviewing, excavation, lab techniques, materials/artifact/skeletal analysis, and data management. [Pre-requisite: enrollment in applied anthropology MA program. Co-requisite: ANTH 670.]

ANTH 672. Theory in Applied Anthropology [3]. Connects anthropological theory and practice in order to address human problems in concrete settings. Develop critical evaluation of and effectively communicate about problems and interactions between humans and their environments. [Pre-requisite: enrollment in applied anthropology MA program.]

ANTH 673. Anthropology Careers & Management Strategy [3]. In-depth examination of domains in which anthropological principles, theories, and methods are applied, intensive development of professional-level skills; written communication, and portfolio: strategic management of applied projects and their outcomes. [Pre-requisite: ANTH 671, enrollment in applied anthropology MA program.]

ANTH 674. Research Project Design [3]. Guided preparation of research proposals or grant applications, with a focus on student initiative and responsibility. Theoretical and methodological topics include defining questions, designing fieldwork, proposal evaluation criteria, and peer review. [Pre-requisite: ANTH 671, enrollment in applied anthropology MA program.]


ANTH 679. Applied Anthropology Region [1-3]. Holistic examination of applied anthropology projects in context. Critical analysis of interplay of factors contributing to the complex reality confronting communities and professionals. Regions and sub-disciplines vary with each offering [Rep once.]

ANTH 680. Graduate Seminar [1-4]. Intensive study; special topics. [Rep.]

ANTH 681. Advanced Research Training [1-4]. Supervised work in ongoing faculty research project. Acquire familiarity with theory construction, research training, data collection, and analysis. [Rep.]

ANTH 682. Anthropology Internship/Field Placement [1-3]. Engages students with the work of research libraries, museums, community organizations, government agencies, and other institutions to enhance students’ knowledge of sources, research methodologies, institutional cultures, and work environments. [Pre-requisite: ANTH 671, enrollment in applied anthropology MA program.]

ANTH 689. Thesis/Project [1-6]. Thesis/project research and writing, peer review, and presentation of thesis or project for committee evaluation. [CR/NC. Rep up to 6 units.]

ANTH 691. Comprehensive Exam [3]. Work toward completion of comprehensive exam with guidance from faculty. Comprehensive exams are generally completed during students’ final semester in MA program. [CR/NC.]

ANTH 695. Field Research [1-4]. Supervised field research. [Rep.]

ANTH 699. Independent Study [1-4]. Directed study of selected problems, issues, and theoretical/analytical concerns. [Rep.]

ART 100. Global Perspectives in Art [3]. Designed for the non-art major; this course explores contemporary art from around the world. The social, political, and cultural contexts in which the art was produced is explored. [Does not apply toward art studio, art history, or art education majors/minors. DCG-n. GE C.]

ART 103A. Prehistoric to Medieval Art [3]. First of a two-part survey of world art history. Covers art and architecture from Europe, Africa, Asia and the Americas from prehistory through the middle ages. [GE C.]

ART 103B. Renaissance to Contemporary Art [3]. Second of a two-part survey of world art history. Covers art and architecture from Europe, Africa, Asia and the Americas from 1400CE to the present day. [GE C.]

ART 104A. Ancient Art [3]. Prehistoric, Mesoamerican, Egyptian, Greek, and Roman art. [GE C.]

ART 104C. Medieval Art [3]. Early Christian, Byzantine, early medieval, Romanesque, and Gothic art. [GE C.]

ART 104F. Renaissance Art [3]. Italian and Northern European artists during the Renaissance. [GE C.]

ART 104G. Baroque Art [3]. Rubens, Rembrandt, and other artists, 1600-1750. [GE C.]

ART 104H. 19th Century Art [3]. European art from the neoclassical to the post-impressionist periods. [GE C.]


ART 104J. American Art [3]. Survey of art covering major artists, stylistic movements, and cultural trends within the borders of the US from the Colonial Period to WWII. [DCG-GE C.]

ART 104K. Africa, Oceania, the Americas [3]. African, Native American, and Oceanic art. Various approaches to, and concepts of, art in these cultural regions. [DCG-n. GE C.]

ART 104M. Latin American Art [3]. History of art and architecture of Mexico, Central America, South America, and the Caribbean from 1500 BCE to the present. Considers the social, political, and cultural contexts in which this art was produced. [DCG-n. GE C.]

ART 104N. Asian Art [3]. Surveys the visual arts of India, China, and Japan in the context of each country’s diverse religious, cultural and political histories. [DCG-n. GE C.]


ART 105C. 2D Foundations [3]. Concepts of line, texture, value, shape, color, and composition in the context of 2-dimensional space. Discussion of the nature of visual perception including illusions and cultural influences on perception. [GE C.]

ART 105D. 3D Foundations [3]. Introduction to materials, techniques and concepts of organizing forms in three dimensions. Discussion of 3D design principles and history in relation to arts, architecture, products and prototype design. [GE C.]

ART 106. Painting I [3]. Training in the fundamentals of painting: color, composition, and technical issues. Develop visual principles through various subject matter. [Rec: ART 105B and ART 105C or IA. GE C.]

ART 107. Printmaking I [3]. Introduction to the contemporary practices and aesthetics of printmaking. Concentration on basic relief, intaglio, monotype and/or lithography methods. [Rec: ART 105B and ART 105C. GE C.]

sustainability-focused sustainability-related; activ activity; (C) may be concurrent; coreq corequisite(s); CR/NC mandatory credit/no credit; DA dept approval; disc discussion:
ART 108. Graphic Design I (3). Introduction to principles, tools, and methodologies of graphic design. Introduction to industry-standard software including Adobe Illustrator, InDesign, and Photoshop within the context of visual problem-solving. [GE C.] 

ART 109. Sculpture I (3). Introduction to sculpture and three-dimensional thinking and vocabulary. Techniques include fabrication in steel, fibers and wood, reduction in stone or plaster and found objects. Presentation of correct tool usage and safety issues. [GE C.] 

ART 112. Scientific Drawing I (3). Development of skills in the observation and accurate rendering of scientific subjects. 

ART 122. Life Drawing I (3). Study of the form of the human figure from direct observation. Includes study of basic anatomy of interest to the artist. [Pre-requisite: ART 105B or IA.] 


ART 273. Illustration I (3). Introduction to traditional media illustration workflow, concepts, and materials and techniques. [Rec: ART 105B.] 


ART 289. Ceramics I (3). Development of basic forming and glazing skills, an understanding of visual form, and creative problem solving. 

**UPPER DIVISION** 

ART 301. Topics in Western Art History (3). Topics in western art history from antiquity to the present. [Rep. GE C.] 

ART 301M. Topics in Western Art History Depth Experience (1). Selected topics in western art history. Explores course topics in greater detail through a combination of seminar meetings, writing assignments, and presentations. [Co-requisite: ART 301. Rep.] 

ART 302. Topics in Global Art History (3). Topics in non-western art history from antiquity to the present. [Rep. DGG or GE C.] 

ART 302M. Topics in Global Art History Depth Experience (1). Selected topics in non-western art history. Explores course topics in greater detail through a combination of seminar meetings, writing assignments, and presentations. [Co-requisite: ART 302. Rep.] 

ART 303. Global Contemporary Art (3). This course explores global contemporary art and theory (post-1970). Emphasis is placed on understanding major trends as well as theoretical models so that students can generate their own informed analysis. [Recommended Preparation: ART 103B. DGG or GE C.] 

ART 303M. Global Contemporary Art Depth Experience (1). This course explores global contemporary art and theory in greater detail through a combination of seminar meetings, writing assignments, and presentations. [Co-requisite: ART 303. Rec: ART 104I.] 

ART 304. Topics in American Art (3). Topics in American art history, pre-contact to the present. [Rep. DGG or GE C.] 

ART 304M. Topics in America Art Depth Experience (1). Topics in American art history, pre-contact to the present. Explores course topics in greater detail through a combination of seminar meetings, writing assignments, and presentations. [Co-requisite: ART 304. Rep.] 

ART 307. Arts Integration in the Elementary Classroom (3). This course introduces prospective elementary teachers to the processes of creating, critiquing, and historically and culturally contextualizing visual arts methods and traditions for integration in the elementary (K-5) classroom. Coursework will prepare students for the development of California Arts Standards (CAS)-based lesson plans for integration in California schools. [UD GE C.] 

ART 312. Drawing II (3). Further development of formal, technical, and conceptual skills. Introduction of color drawing media. Emphasis on drawing as a tool for the visual communication of ideas. [Pre-requisite: ART 105B; Rec. ART 105C. Rep.] 

ART 324. Drawing III (3). Build on skills and concepts explored in prerequisite courses. Develop an aesthetically cohesive series of drawings informed by individual interests. [Pre-requisite: ART 112 or ART 273 or ART 321 or ART 325 or IA. Rep.] 

ART 325. Life Drawing II (3). Continued study of the form of the human figure from direct observation. Exploration of the ways in which figurative art can be used to communicate ideas. [Pre-requisite: ART 122 or IA. Rep.] 


ART 329. Painting III (3). Further develop individual intuition and vision. Apply, understand, and compare concepts, attitudes, and methods of traditional and contemporary approaches to painting. [Rec: ART 326 or IA. Rep.] 

ART 330. Printmaking: Studio Topics (3). Further development of formal, technical, and conceptual skills. Emphasis on larger scale prints, color printing and combinations of print techniques. Rotating concentration on one or two print processes. [Pre-requisite: ART 107 or IA. Rep.] 

ART 333. Printmaking Portfolio Development (3). Continued development of print skills to create personally expressive and content-driven artwork. Course explores intensive study of intaglio, relief, monotype, lithography, and/or new processes. [Pre-requisite: ART 330 or IA. Rep.] 

ART 337. Photography: Studio Topics (3). In-depth exploration of photographic tools and processes that build upon a basic knowledge of camera functions and analog and/or digital processes. Topics may include: alternative non-silver darkroom processes, digital negatives, large format cameras, and studio lighting. [Pre-requisite: ART 250 or ART 251. Repeatable.] 


ART 340. Graphic Design II (3). Continued investigation into visual communication with emphasis in typography, layout and design, and information architecture. [Pre-requisite: ART 103. Rep. twice.] 

ART 343. Graphic Design: Portfolio Development (3). Prepare for entry into professional practice through the development of a market-ready portfolio and work on complex problems. Topics alternate between print and web design. [Pre-requisite: ART 340. Rep.] 

ART 345. Sculpture: Studio Topics (3). In-depth exploration of sculptural philosophies and processes that build on sculptural knowledge. Topics such as: installation, performance, earth/land works, public art, photographing 3D work, ephemeral, conceptual will be explored. [Pre-requisite: ART 103. Rep. with IA.] 


ART 351. Ceramics: Low Fire (3). Further development of forming and glazing skills associ-

ART 353. Off-Campus Studies in Art History [1-9]. Visit museums, archaeological monuments, collections. [Pre-requisite: 6 units of art history or IA. Rep.]

ART 354. Problems in Art History [1-4]. Special topics.


ART 357B. Curriculum & Development Through Art Education I [3]. Examines the relationship between art and the development of children and adolescents. Discuss current theory and practice in art education. Art education majors only. Beneficial to complete SED 210/410 before this class. Preferably, take fall semester of your junior year.

ART 357C. Curriculum & Development Through Art Education II [3]. Further development in curriculum planning. Students develop a docent program for participating schools and create an educational CD-ROM. Art education majors only. Beneficial to complete SED 210 before this class. Preferably, take spring semester of your junior year. [Pre-requisite: ART 357B.]

ART 359. Ceramics: Portfolio Development [3]. Capstone course for art majors. Development and refinement of professional practices related to visual arts. [Senior standing. Art majors only.]

ART 400. Selected Topics in Art [3]. Selected topics in art to be determined by program need and student interest. Topics vary. [Rep 3 times.]


ART 491A. Teaching Assistant — Studio [3]. This course provides an introduction to university-level teaching. Under the guidance of a master teacher, students learn curriculum development and will assist the instructor in the studio classroom. [Upper division art majors only. Rec: advanced-level standing in their media area. CR/NC. Rep.]

ART 491B. Teaching Assistant — Art History [3]. This course provides an introduction to university-level teaching. Advanced art history students, under the guidance of a master teacher, learn curriculum development as it pertains to the art history classroom. [Upper division art majors only. Rec: advanced-level standing in art history. CR/NC. Rep.]

ART 491C. Teaching Assistant — Art Education [3]. This course provides an introduction to university-level teaching. Under the guidance of a master teacher, students learn curriculum development, as it pertains to the art education classroom. [Pre-requisite: ART 357B and ART 357C. Upper division art majors only. Rec: advanced-level standing in their media area. CR/NC. Rep.]

ART 494. B.F.A. Practicum in Studio Art [4]. Cross-disciplinary seminar/lab. Production of a cohesive body of work that demonstrates perceptual acuity and conceptual understanding at a professional level. Required participation in critiques, discussions and readings. [Pre-requisite: ART 437 and senior standing in the BFA program.]

ART 496. Seminar in Art [3]. Selected problems. [Pre-requisite: at least 24 lower and upper division art units. or IA. Rep.]

ART 497S. Service Learning & Art Education I [3]. Integrates art education theory and practice with service learning concepts in concert with a practicum in the field — forty-five hours of participation assistant teaching in Community Partner visual arts programs. [Pre-requisite: ART 357B and ART 357C. Upper division art education majors only.]

ART 498S. Service Learning & Art Education II [3]. Integrates art education theory and practice with service learning concepts in concert with a practicum in the field — forty-five hours of teaching and related activities in Community Partner visual arts programs. [Pre-requisite: ART 497S. Upper division art education majors only.]

ART 499. Directed Study [1-6]. Program and hours arranged with staff. [Rep.]


ART 480. Selected Topics in Art [3]. Selected topics in art to be determined by program need and student interest. Topics vary. [Rep 3 times.]

ART 499. Directed Study [1-6]. Program and hours arranged with staff. [Rep.]

ARTS 100. Argonauts of Human Life [3]. An anthropological perspective on human life, HSU major and career choices, and ways of navigating a multicultural, global, and digital society. College success skills will be developed in this course. [E-LD.]

AHSS 101. The Stories We Tell [3]. Explore how the arts impact and influence understanding. Hands-on experience in music, film, and studio art to explore physical, socio-cultural, and emotional development in relationship to the broader community. [E-LD.]

AHSS 102. Humboldt Peoples & Places [3]. Surveys the history of the people and places of Humboldt County. Analysis of political, economic, social, intellectual events, and the interactions among the diverse populations that reside here. [E-LD.]

AHSS 103. Your Voice Your Story [3]. Designed for AHSS students to help you find yourself and your major; learn about others and local environment, and master strategies for success in college, your career, and life. [E-LD.]

AHSS 104S. Global Meets Local in Humboldt [3]. Are we “global”? Study the politics, culture, and economics of Humboldt County and the differences individuals make in our communities and the world. Service learning component. College success skills developed. [E-LD.]

AHSS 106. Humboldt in Popular Media [3]. Preparation to be knowledgeable participants in a contemporary, complex media environment; describe, analyze, and critique media forms and content; craft media reflections through written, audio, and visual storytelling. [E-LD.]

AHSS 108. Nature, Culture, & Food [3]. Interdisciplinary examination of cultural perspectives on nature linked to social and environmental issues, emphasizing food systems and social change. College success skills will be developed in this course. [DCG-d; E-LD.]

AHSS 109. Bilingual Experience in California [3]. Best practices from a bilingual perspective to be successful on campus and in life. Improve your Spanish, get involved, and explore university agencies and resources. Taught in English and Spanish. [Rec: Intermediate Spanish language abilities or Heritage Speaker of Spanish. E-LD.]


AHSS 180. Selected Topics in Arts & Humanities [1-3]. Interdisciplinary topics. [Lect/lab as appropriate. Rep.]

AHSS 201. Evolution, Creation, & the Robot Apocalypse [3]. Are science and religion enemies, partners, or strangers? Galileo, Newton,
Biology

LOWER DIVISION

BIOL 102. Human Biology [3]. The human animal as a biological entity: structure, function, health and disease, evolution and behavior. Not intended for majors in science, natural resources, or kinesiology. [Weekly: 3 hrs lect, GE B]

BIOL 102L. Human Biology Lab [1]. Laboratory focusing on human anatomy, physiology, and genetics. Not intended for majors in science, natural resources, or kinesiology. [Corequisite: BIOL 102. Weekly: 3 hrs lab. GE B]


BIOL 105. Principles of Biology [4]. Fundamental processes of life. Structure and function of cells, genetics, evolution, and ecology. [Prerequisite: CHEM 107 or CHEM 109 with a grade of C- or higher. Weekly: 3 hrs lect, 3 hrs lab. GE B]

BIOL 180 / BIOL 180A / BIOL 180L. Selected Topics in Biology [1-3]. Topics of current interest supplemental to established lower division curricular offerings. [Prerequisite: IA. Rep.]

BIOL 189. Supplemental Instruction [1]. Collaborative work for students enrolled in introductory biology. [CR/NC. Rep.]

BIOL 210. Medical Microbiology [4]. Classification, physiology, and pathogenesis of human disease caused by bacteria, protozoa, fungi, and viruses. Theories of diagnosis, treatment, immunity, and prophylaxis. Lab training in cultivation, identification, diagnosis. [Weekly: 3 hrs lect, 3 hrs lab. Pre-requisite: BIOL 104 or BIOL 105 with a grade of C- or higher.]

BIOL 255. Marine Biology [3]. The study of life in marine environments (kelp beds, rocky shores, salt marshes, coral reefs, deep sea). Emphasis on marine organisms and the processes that structure marine communities and ecosystems, their productivity and conservation. [Prerequisite: [OCN 109 if taken prior to fall 2015] or OCN 109 and OCN 109L / BIOL 105 or BOTT 105 or ZOOL 110. Weekly: 2 hrs lect, 3 hrs lab.]

BIOL 280 / BIOL 280L. Selected Topics in Biology [1-3]. Topics of current interest supplemental to established lower division curricular offerings. [Prerequisite: IA. Rep.]

BIOL 301. History of Biology [3]. How key ideas in biology developed from antiquity to present. Sociocultural influences on biology, effects of biological discoveries on society. Intended for non-majors. Cannot be used to satisfy major or minor requirements in the Department of Biological Sciences. [Prerequisite: completed lower division GE science. Weekly: 3 hrs lect. GE B.]

BIOL 304. Human Genetics [3]. Heredity in humans. Sexuality/reproduction; nature and activities of genes and chromosomes; behavioral genetics; genetic disorders; modern biomedical genetics. Intended for non-majors. Cannot be used to satisfy major or minor requirements in the Department of Biological Sciences. [Prerequisite: completed lower division GE science. GE B.]

BIOL 305. Social Behavior & Biology [3]. Social behavior and biology of animals, including humans. Social grouping, communication; sexual and parental behavior; reciprocity; altruism; aggression and dominance. Intended for non-majors. Cannot be used to satisfy major or minor requirements in the Department of Biological Sciences. [Prerequisite: completed lower division science GE. DGCh. GE B.]

BIOL 306. California Natural History [3]. Human interaction with the natural world as seen by biologists. Identify plants or animals and habitats of northern California. Intended for non-majors. Cannot be used to satisfy major or minor requirements in the Department of Biological Sciences. [Prerequisite: completed lower division science GE. Weekly: 2 hrs lect, disc. 3 hrs lab/field trip. GE B.]

BIOL 307. Evolution [4]. Properties and differentiation of populations. Population genetics; mechanisms of species formation; and macroevolution. [Prerequisite: BIOL 340. Weekly: 3 hrs lect, 1 hr disc. GE B.]

BIOL 308. Environment & Culture: How People Transformed a Continent [3]. How different cultures have altered ecological systems in the U.S. From the influence of Native Americans on ecosystems to how expansion of European colonists and contemporary culture effects our environment. Intended for non-majors. Cannot be used to satisfy major or minor requirements in the Department of Biological Sciences. [Prerequisite: completed lower division science GE. GE B.]

BIOL 330. Principles of Ecology [4]. Major ideas shaping modern ecology: population regulation, competition, predation, ecosystem energetics, mathematical models, and nutrient cycling. Role of biological and physical factors in developing community structure. [Prerequisite: BIOL 105; STAT 108 or STAT 108I or STAT 109; BOTT 105 or ZOOL 110; all with grades of C- or higher. Weekly: 3 hrs lect, 3 hrs lab.]

BIOL 335. Field or Laboratory Problems [1-2]. Individual work in field or lab research. [Prerequisite: IA. Rep once.]

BIOL 340. Genetics [4]. Principles of heredity, nature and function of genetic material, with quantitative analyses; genetic constitution of populations. [Prerequisite: BIOL 105 and [STAT 108 or STAT 108I or STAT 109 or CHEM 341]; all with grades of C- or higher. Weekly: 3 hrs lect, 3 hrs lab.]

BIOL 350. Cell Biology [3]. Study of the structure and function of cells with emphases in biochemistry, molecular biology, and physiology, and methods used to address relevant questions in the field. [Prerequisite: BIOL 340 and [PHYX 106 or PHYX 109].

BIOL 369. Professional Writing in the Life Sciences [4]. Writing scientific papers for publication. Theses, journal articles, reviews, grant applications, technical reports. [Weekly: 2 hrs lect, 2 hrs activ.]

BIOL 380 / BIOL 380L. Selected Topics in Biology [1-3]. Topics of current interest supplemental to established upper division curricular offerings. [Prerequisite: IA. Rep.]

BIOL 399. Supplemental Work in Biology [1-3]. Directed study for transfer student whose prior coursework is not equivalent to corresponding HSU courses. [Department and instructor approval required. Rep once.]

BIOL 412. General Microbiology [4]. Natural history and importance of bacteria, archaea, and viruses. Structure, growth, metabolism, genetics, taxonomy, diversity pathogenesis and applied aspects of microorganisms. [Prerequisite: BIOL 340 with a grade of C- or higher. Weekly: 2 hrs lect, 6 hrs lab.]

BIOL 418. Marine Microbiology [3]. Biology, behavior and function of microorganisms in diverse marine habitats, roles in ecological processes. Laboratory: isolation, molecular and ecological approaches to microbial processes. [Prerequisite: BIOL 340 with a grade of C- or higher. Weekly: 2 hrs lect, 3 hrs lab.]

BIOL 430. Intertidal Ecology [3]. Ecological principles as applied in coastal marine habitats; rocky shores, sandy beaches, bay flats, and nearshore waters. Numerous field trips; one weekend trip. Individual and group studies a major part of lab work. [Prerequisite: BIOL 330 and ZOOL 314, or their equivalents; all with a grade of C- or higher. Weekly: 2 hrs lect, 3 hrs lab.]

BIOL 433. Microbial Ecology [3]. This course explores the biology, behavior, and function of microorganisms in natural environments with attention to their role in ecologically and environmentally significant processes. [Must co-enroll in BIOL 433. Prerequisite: BIOL 412 or (BIOL 340 and BIOL 330). Weekly: 2 hrs lect, 3 hrs lab. One weekend fieldtrip. Service fee.]

BIOL 433D. Microbial Ecology Discussion [1]. This discussion explores the biology, behavior, and function of microorganisms in natural environments [to be taken in conjunction with BIOL 433 for credit]. [Prerequisite: BIOL 412 or (BIOL 340 and BIOL 330).]

BIOL 434 / BIOL 534. Population & Community Ecology [4]. The study of the structure and distribution of populations and communities. Topics include population viability modeling, metapopulation dynamics, mark-recapture techniques, species interactions, trophic dynamics,
assembly rules, biodiversity, and conservation issues. [Pre-requisite: BIOL 330 or WLDF 301. Weekly: 3 hrs lect, 3 hrs lab.]

BIOL 438. Field Ecology [4]. A capstone experience in field ecology for advanced undergraduates majoring in Biology with an Ecology emphasis and a preparatory experience for graduate students entering advanced studies in ecology. [Pre-requisite: BIOL 330 with a grade of C- or higher. Weekly: 2 hrs lect, 6 hrs lab/fieldtrip.]

BIOL 440. Molecular Genetics Lab [2]. Experiments in modern and classical genetics, using a variety of organisms. [Pre-requisite: BIOL 340 or equivalent with a grade of C- or higher.]


BIOL 450. Cell Biology Laboratory [2]. Experiments in modern and classical cellular and molecular biology, cellular physiology, and biochemistry of cells using cell culture models. [Pre-requisite: BIOL 350 with a grade of C- or higher.]

BIOL 480 / BIOL 480L. Selected Topics in Biology [1-3]. Topics in current advances as demand warrants. [Pre-requisite: IA. Rep once with different topic and instructor.]

BIOL 482. Supervised Internship [1-12]. Students implement the theory and practice of their major working for a public agency or private firm/organization. [Pre-requisite: IA. Rep twice.]

BIOL 484. Current Topics in Biology [1]. The latest biological research examined through weekly seminar presentations by biologists. [CR/NC. A maximum of one unit of this course may be counted toward a major in the biological sciences. Rep.]


BIOL 498. Marine Biology Capstone Research [2]. Independent research conducted under faculty supervision. [Pre-requisite: BIOL 255, BIOL 330, ZOOL 314, senior standing in Marine Biology program.]


GRADUATE

BIOL 533. Microrgan Ecology [3]. This course explores the biology, behavior, and function of microorganisms in natural environments with attention to their role in ecologically and environmentally significant processes. [Must co-enroll in BIOL 533D. Pre-requisite: BIOL 412 or (BIOL 340 and BIOL 330). Weekly: 2 hrs lect, 3 hrs lab. One weekend fieldtrip. Service fee.]

BIOL 533D. Microbial Ecology Discussion [1]. This discussion explores the biology, behavior, and function of microorganisms in natural environments (to be taken in conjunction with BIOL 533

lecture and lab). [Pre-requisite: BIOL 412 or (BIOL 340 and BIOL 330).]

BIOL 534 / BIOL 434. Population & Community Ecology [4]. The study of the structure and distribution of populations and communities. Topics include population viability modeling, metapopulation dynamics, mark-recapture techniques, species interactions, trophic dynamics, assembly rules, biodiversity, and conservation issues. [Pre-requisite: BIOL 330 or WLDF 301. Weekly: 3 hrs lect, 3 hrs lab.]

BIOL 544. Stem Cell Biology [2]. Stem cell biology, maintenance, differentiation, and applications to science and medicine. Includes extensive review and analysis of primary scientific literature. Discussion topics will include regenerative medicine, science policy, and ethics. [Letter grade only. Pre-requisite: BIOL 450 with a grade of C- or higher and senior standing or higher. Rec: BIOL 440, ZOOL 476 and (CHEM 434 or CHEM 438).]


BIOL 550. Systematics [3]. Detect, describe, and explain biological diversity. Explore evolutionary, numerical, and cladistic approaches to classifying organisms and assessing their relationships. [Pre-requisite: upper division survey courses in animals or plants or IA. Rec: BIOL 307.]


BIOL 556. Transmission and Scanning Electron Microscopy [4]. Transmission and scanning electron microscopy theory and technique. Preparation of materials, operation of electron microscopes, conduct an EM-based independent research project utilizing both systems. [Pre-requisite: IA required, BOT 105, BIOL 105, ZOOL 110.]

BIOL 580 / BIOL 580L. Selected Topics in Biology [1-3]. Topics on current advances as demand warrants. [Pre-requisite: grad standing and IA. Lect/lab as appropriate. Rep once.]

BIOL 597. Methods in Laboratory Instruction [2]. Develop a "toolkit" of strategies and techniques to support student learning. Newly hired teaching associates in the Department of Biological Sciences are strongly encouraged to take this course. Course meets pre-semester for two-day immersion and weekly discussion. [CR/NC. Pre-requisite: Graduate Standing.]

BIOL 683. Introduction to Graduate Studies [1]. Orientation to research opportunities, plan and develop master’s project. Beginning grad students should enroll at earliest opportunity. [Pre-requisite: acceptance into master’s program in biology. Weekly: 1 hr seminar/recitation.]

BIOL 684. Introduction to Graduate Research [1]. Orientation to research opportunities, funding, and planning. Develop and present a research proposal with peer review. [Pre-requisite: BIOL 683 or classified grad standing in biology.]


CREDENTIAL/LICENSURE

BIOL 700. In-Service Professional Training in Biology [1-3]. Directed studies for biology professionals for transferring advanced or specialized instruction, especially those leading to credentialing and certification. [Pre-requisite: IA. Rep once.]

Botany

LOWER DIVISION

BOT 105. General Botany [4]. Structure, function, reproduction, life cycles, and phylogenetic relationships of major plant groups. Relationships of plants to other organisms and to human activities. [Weekly: 3 hrs lect, 3 hrs lab. GE B.]

BOT 198. Supplemental Instruction [1]. Collaborative work for students enrolled in introductory botany. [CR/NC. Rep.]

UPPER DIVISION

BOT 300. Plants & Civilization [3]. Plants that have played important roles in our economic, social, and cultural development. Evolutionary and morphological aspects of edible, medicinal, and psychoactive plants. Intended for non-majors. Cannot be used to satisfy major or minor requirements in the Department of Biological Sciences. [Pre-requisite: completed lower division life science. GE.]

BOT 310. General Plant Physiology [4]. Plant growth, development, reproduction, metabolism, photosynthesis, soil/water relations, inorganic nutrition, and translocation. Quantitative analysis of physiological functions. [Pre-requisite: BIOL 105, BOT 105, and PHYX 105, or their equivalents. All with a grade of C- or higher: Weekly: 2 hrs lect, 6 hrs lab.]


BOT 330. Plant Ecology [2]. Principles governing structure and dynamics of plant populations and communities. Topics include community sampling, interspecific interactions, population viability analysis, and conservation issues. [Pre-requisite: BIOL...
BOT 330L. Plant Ecology Lab [1]. Apply concepts and methods from BOT 330. [Pre-requisite: BOT 330 (C).]

BOT 350. Plant Taxonomy [4]. Identify ferns, gymnosperms, and flowering plants. Recognize families and key plants in the local flora. [Pre-requisite: BOT 105 with a grade of C- or higher. Weekly: 2 hrs lect, 6 hrs lab or field trip.]

BOT 354. Agrostology [4]. Taxonomy, identification, and relationships of grasses of North America. [Pre-requisite: BIOL 105 and BOT 105, or their equivalents. Weekly: 2 hrs lect, 6 hrs lab.]


BOT 358. Biology of the Microfungi [2]. Morphology, genetics, classification, ecology, and economic importance of yeasts and molds. Emphasis on isolation, culture, and lab techniques. [Pre-requisite: BOT 105 with a grade of C- or higher or IA. Weekly: 1 hr lect, 3 hrs lab.]

BOT 359. Biology of the Ascomycetes & Basidiomycetes [2]. Morphology, anatomy, classification, genetics, ecology, physiology, and economic importance of ascomycetes and basidiomycetes. [Pre-requisite: BOT 105 with a grade of C- or higher or IA. Weekly: 1 hr lect, 3 hrs lab or fieldwork.]

BOT 360. Biology of the Fleshy Fungi [2]. Systematics, ecology, toxicity, biological interactions, and culturing of mushrooms, polyopores, chanterelles, boleti, and puffballs. Emphasis: Northern California fungi. [Pre-requisite: BOT 105 with a grade of C- or higher or IA.]

BOT 360L. Biology of the Fleshy Fungi Lab [2]. [Pre-requisite: BOT 360 (C) or IA. Weekly: 6 hrs lab, fieldwork.]


BOT 394. Forest Pathology [3]. Biology of diseases affecting trees in the forest and forest nursery. Emphases: fungi, mistletoes. [Pre-requisite: BOT 105 with a grade of C- or higher or IA. Weekly: 1 hr lect, 6 hrs lab or fieldwork.]

BOT 399. Supplemental Work in Botany [1-3]. For transfer student whose prior coursework is not equivalent to corresponding courses at HSU. Directed study. [Department approval required. Rep on.]

BOT 458. Pollination Biology [3]. Pollinator diversity and behavior; plant mating systems; coevolution. Basic lab and field methods. Develop plans for senior thesis. [Pre-requisite: BIOL 330 with a grade of D or higher; plus any taxonomy course. Weekly: 2 hrs lect, 3 hrs lab.]

GRADUATE

BOT 521. Paleobotany [3]. Principles of reconstructing past terrestrial landscapes, environments, and plant communities. Techniques for finding, analyzing, and interpreting fossil evidence. [Pre-requisite: BOT 105, GEOL 109; plus at least one of the following: FDR 130, FOR 131, BOT 350, GEOL 332, GEOL 306 or IA.]

BOT 522 / BOT 322. Developmental Plant Anatomy [4]. Plant structure and development, emphasis on seed plants; cells, tissues, and organs. Cell fate determination tissue patterning. Descriptive anatomy and molecular mechanisms. Applications of plant anatomy. Primary literature surveys, scientific communication. [Pre-requisite: BOT 105 and BIOL 340 (C).]


BOT 580 / BOT 580L. Selected Topics in Botany [1-3]. Topics on current advances as demand warrants. [Pre-requisite: grad standing or IA. Rep once.]

Business Administration

LOWER DIVISION

BA 105. Critical Thinking in Organizations [3]. Critical thinking and decision-making in organizations. Approach, solve, and communicate solutions to organizational issues systematically. Participate in stimulating debates, classroom simulations, and real-world research that bring topics to life. [GE A.]

BA 106. Advocating for Sustainability [3]. Course will provide an understanding of sustainability issues, discovering what you are passionate about and modifying behaviors regarding consumption, work, living decisions, etc. to become well-informed strong advocates for change. [GE D.]

BA 106D. Advocating for Sustainability - Additional Depth [1]. Additional depth by analyzing sustainability initiatives/reporting in businesses. [Co-requisite: BA 106.]


BA 202. Personal & Family Financial Management [3]. Important financial concepts/skills needed over a lifetime. Topics covered range from education funding, budgeting, banking, saving, smart spending, investing, income taxation, mortgages, credit analysis, leases, insurance, stocks, bonds, and financial planning. (LD GE E.)


BA 252. Management Accounting [4]. Introduction to accounting information system used for internal decision making within organizations, which include planning, operational control, and performance evaluation. [Pre-requisite: BA 250 (including spreadsheet skills). Weekly: 4 hrs lect.]

UPPER DIVISION

BA 304 / PSYC 304. Business Psychology [3]. Critically examines the psychological foundation of business by looking at how business agents think, feel and act in various situations and how managers make decisions. [GE D.]

BA 304D. Business Psychology - Additional Depth [1]. The psychological foundation of business will be examined by taking a closer look at how consumers think feel and act in various situations and how managers make decisions in complex situations. How business psychology influences financial markets and corporate behavior. [Pre-requisite: Business major; sophomore standing or greater. Co-requisite: BA 304.]

BA 310. Business Law [4]. Agencies, administrative regulations, partnerships, corporations, security regulations, labor and employment, antitrust, property, insurance, international, professional liability. Law case studies. [Pre-requisite: BA 210 or IA.]

DCC diversity & common ground; d domestic; n non-domestic; GE general ed; IA instructor approval; lect lecture; prereq prerequisite; rep recommended preparation; rep repeatable for credit

2021-2022 Humboldt State University Catalog Business Administration 233
BA 322. Business Analytics (4). Explore basic data analytics concepts, techniques and tools used in the process of data-driven business decision-making and strategy, drawing real examples from different functional areas in business. [Pre-requisite: MATH 104 or MATH 104i or STAT 108 or STAT 108i or equivalent; business administration majors.]


BA 360. Principles of Finance (4). Basic skills for analyzing financial data. Time value of money; techniques and ratios commonly used in financial analysis. [Pre-requisite: MATH 104 or MATH 104i or STAT 108 or STAT 108i or equivalent; business administration majors.]

BA 370. Principles of Management (4). Theory, behavior, production and operations, and interpersonal communication in organizations: large or small, profit or nonprofit, domestic or international.


BA 422. Financial Data Analytics & Econometrics (4). Introduction to basic data analytics concepts, techniques, and tools for financial and economic applications. It covers topics from computer programming and data analysis, econometrics, financial economics, mathematical optimization, and probability models. [Pre-requisites: MATH 104 or MATH 104i or STAT 108 or STAT 108i or BA 322 and junior standing or above.]

BA 430. Introduction to New Ventures (4). Planning, start up, sources of capital, location, form, budgeting, record keeping, marketing, management.

BA 431. Global E-Commerce Entrepreneurship (4). Learn to identify market opportunities for e-commerce businesses and analyze international locations. Develop a plan for an online business that can be operated from anywhere in the world. [Pre-requisite: BA 370.]

BA 432. Leading Sustainable Ventures (4). This course bridges the practical and theoretical in pursuit of leading an economically, socially, and environmentally sustainable venture. The tools explored are relevant to entrepreneurs and managers of existing organizations. [Pre-requisite: BA 370 with grades of C- or higher.]

BA 433. Service Venture Management (4). Service industry businesses comprise an increasingly large proportion of global and domestic economic activity. Gain the unique tool-set required to effectively lead a service venture. [Pre-requisite: BA 370; Rec: BA 105.]

BA 437. Entrepreneurial Analytics & Technology (4). Explore the measurement and analytics of key metrics in business. Develop skills for data-driven decision making in small and entrepreneurial businesses. Focus on technology and computer applications. [Pre-requisite: BA 250 [C] and BA 322.]

BA 438. Applications in Entrepreneurship (4). Study entrepreneurial strategy and implementation using contemporary forms of business planning. [Pre-requisite: senior standing.]

BA 439. New Venture Consulting (4). Complete a consulting project and business plan with a new venture. Class meetings and field work each week. [Pre-requisite: senior standing. Weekly: 4 hrs. lect./disc.]

BA 441. Retailing & Services Marketing (4). Following a case, discussion, and hands-on format, the course introduces students to retailing in a technology-rich environment and marketing from a service-dominant perspective. [Pre-requisite: BA 340 and sophomore standing or greater.]

BA 445. Marketing Communications (4). Comprehensive examination of marketing communication activity and its environment; topics discussed include targeting, positioning, objectives setting, budgeting, sales promotion, personal selling, advertising, and public relations. [Pre-requisite: BA 340 or equivalent.]

BA 446. Marketing Research (4). Study and application of primary and secondary marketing research through group work or local organizations. Activities include survey design and execution, data entry and analysis, report preparation and presentation. [Pre-requisite: BA 340 AND either (MATH 104 or MATH 104i and BA 120) or (STAT 108 or STAT 108i) or BA 322 and junior standing or above.]

BA 447. E-Commerce / E-Marketing Strategy (4). Through interactive discussions, group activities and individual assignments, students will explore e-commerce and e-marketing concepts to understand how Internet has altered buying and selling of goods and services today. [Pre-requisite: BA 340 and sophomore standing or greater.]

BA 448. Consumer Behavior (4). Study of how organizations design and modify marketing strategies by understanding changing consumer lifestyles and attitudes in a multicultural world, and the resulting consumer behaviors in the global marketplace. [Pre-requisite: BA 340 with a grade of C- or higher.]

BA 449. Macromarketing (4). Examines the relationship between marketing and society. Topics include technology, ethics, materialism, globalization, sustainability. The course is multicultural and multidisciplinary. [Pre-requisite: BA 340 and junior standing or above.]

BA 450. Intermediate Financial Accounting (4). This course helps students develop knowledge of accounting concepts, standards, and procedures by examining complex issues related to the measurement and reporting of income, current assets, and current liabilities. [Pre-requisite: BA 252 [C] or equivalent.]


BA 452. Cost Accounting, Planning & Control (4). In-depth study of four basic cost accounting systems used to determine costs to produce a product or provide a service, and manage the production process. Lecture with spreadsheet projects. Required for accounting option. [Pre-requisite: BA 252.]

BA 453. Tax Accounting (4). Introduction to the U.S. federal income tax system. Topics include: history, logic, regulations, and/or reporting schedules. Preparation of individual returns. Primarily for accounting concentration. [Pre-requisite: BA 450 [C].]

BA 454. Financial Statement Auditing (4). Introduction to the U.S. auditing standards and procedures applicable to an organization's financial statements and financial accounting system. Primarily for accounting concentration. [Pre-requisite: BA 450.]

BA 455. Governmental & Nonprofit Accounting (4). This course covers accounting principles applicable to state and local governments and other nonprofit organizations, fund accounting procedures, and analysis and interpretation of financial statements of governmental and nonprofit entities. [Pre-requisite: BA 450.]

BA 456. Accounting Ethics (4). Application of ethical concepts within the financial services industry. Exploration of ethical reasoning models, as well as codes of professional conduct standards applicable to practicing accountants. [Pre-requisite: BA 210, BA 252; sophomore standing or greater.]

BA 460. Responsible Investment Management (4). Traditional and modern approaches. Sources/uses of information, alternative investment instruments, capital markets. Valuation of securities and portfolios under risk through technical/fundamental analyses and portfolio-statistical models. [Pre-requisite: BA 360.]

BA 462. Corporate Finance & Valuation (4). Apply principles and techniques to financial decision making and policy formulation. Case study/analytical approach. Short-term asset management, financial forecasting, capital expenditure, and capital structure policies. [Pre-requisite: BA 360.]

BA 466. Entrepreneurial Finance (4). Framework to evaluate a new start-up idea. Forecasting financial statements, scenario and simulation analysis to evaluate alternative strategies, assess financial needs, assess risk and expected cash flows. [Pre-requisites: BA 360.]

BA 469. Financial Risk Management (4). Pricing and use of financial derivatives, including options, forwards, futures, swaps and credit derivatives in risk management. Focus on applications of risk management tools within corporations and financial institutions. [Pre-requisites: BA 360.]

BA 470. Organization & Management Theories (4). How generic management process applies to all types of organizations (profit, not-for-profit, manufacturing, service, corporate, single-
promote strategic sustainability. Information used
admission to MBA program.
accounting, economics, finance, and statistics; 
requisite: undergraduate foundation courses in 
economic and management paradigms. [Pre-
organizations, sustainability frameworks, business 
effectively using advanced statistical techniques 
current research, managing large data sets, and 
satisfies the dynamic needs of communities in the 
21st century. In this hands-on course, we re-
imagine marketing management through cutting 
edge perspectives on shared value creation. [Pre-
requite: MBA 605, MBA 610, graduate stand-
MBA 640. Financial Management for Sus-
tainable Growth [4]. Research and analyze se-
veral viewpoints on financial management for 
long-term sustainable growth for the enterprise. 
Contemporary theoretical and institutional devel-
lopments in finance; implications for decision 
making and policy formation. [Pre-
requite: MBA 605, MBA 610, MBA 620.]
MBA 650. Designing Sustainable Organiza-
tions [4]. Organizations are affected by technol-
y, other organizations, national cultures, and 
social and economic conditions. Analyze and de-
sign structures that create sustainable shared 
value for the enterprise. [Pre-
requite: MBA 605, graduate stand-
MBA 675. Sustainability/Ethics [4] Su. Eth-
cical theories and implications for individuals and 
organizations, as applied to organizational ethics, 
environmental regulations and frameworks, 
global ethics issues based on regional imbalances, 
and intergenerational ethics and sustainability 
issues. [Pre-
requite: MBA 650, graduate stand-
MBA 679. Strategic Analysis [4] Su. Synthe-
sizing management, marketing, finance, production, 
and other functions into unified strategies for 
organizations [local, national, international]. [Pre-
requite: MBA 630, MBA 640, MBA 650. Co-
requite: MBA 692.]
MBA 680. Selected Topics in Business Ad-
ministration [1-4]. Open to grad students with IA. 
MBA 682. Business Internship [1-4]. Supervised 
experience in business, governmental, or service 
agencies. Apply graduate-level, business-relevant 
techniques to analysis, evaluation, and strategic manage-
ment of organizations. [Co-
requite: MBA 679. Rep two.
MBA 699. Independent Study [1-4]. Research 
work. Open to grad students with consent of 
MBA director.

Chemistry

Chemistry majors and minors must earn a 
minimum grade of C in all chemistry courses.

LOWER DIVISION

CHEM 100. From Stars to Rocks: Being a 
Scientist in the 21st Century [3]. Introduction 
to the impact of astronomy, chemistry, physics, 
and geology on student life and society, practical 
aspects of the study of the disciplines and associ-
cated careers from different perspectives. [E-LD]

CHEM 107. Fundamentals of Chemistry [4]. 
Terminal course. Fundamental concepts and 
applications of general and inorganic chemistry. 
[Letter grade only. Weekly: 3 hrs lect, 3 hrs lab. 
Pre-
requite: math placement category I, II, or 
III. GE B.]

CHEM 109. General Chemistry I [5]. Fundamen-
tal concepts: chemical foundations, stoichiometry, 
chemical reactions, gases, thermodynamics, 
atomic theory, bonding, liquids, solutions. For stu-
dents in science, engineering, and related majors. 
[Letter grade only. Pre-
requite: CHEM 109 with a grade of C or 
higher: Weekly: 3 hrs lect, 6 hrs lab.]

CHEM 110. General Chemistry II [5]. Funda-
tmental concepts: kinetics; equilibrium; acids 
and bases; acid-base, solubility, and complex ion 
equilibria; entropy and free energy; electrochem-
istry; qualitative analysis. For students in science, 
engineering, and related majors. [Letter grade 
only. Pre-
requite: CHEM 109 with a grade of C or 
higher: Weekly: 3 hrs lect, 6 hrs lab.]

CHEM 128. Introduction to Organic Chemistry 
[3]. An introductory course in organic chemistry 
for natural resource majors. Topics will include struc-
ture and bonding, nomenclature, and 
common functional groups and their reactivity. 
[Pre-
requite: CHEM 107. Weekly: 2 hrs lect, 
3 hrs lab.]

CHEM 198. Supplemental Instruction [1]. Col-
laborative work for students enrolled in chemistry. 
[CR/NC. Rep.]

CHEM 228. Brief Organic Chemistry [4]. For 
majors in biological science/natural resource 
areas. Nomenclature, physical properties, syn-
thesis, and reactions of compounds represent-
ing major functional group categories. Reaction 
 mechanisms emphasized. [Letter grade only. 
Pre-
requite: CHEM 107 with a grade of C or 
higher or CHEM 110 with a grade of C or higher: 
Weekly: 3 hrs lect, 3 hrs lab.]

UPPER DIVISION

CHEM 308. Alchemy [3]. Inquiry into materials, 
methods, and processes of alchemy from per-
spectives of alchemist, contemporary chemistry. 
[GE B.]

CHEM 310. Inorganic Chemistry [3]. Advanced 
concepts: nuclear properties, molecular symme-

CHEMISTRY

Department of Chemistry

Courses in the Department of Chemistry are designed to provide fundamental knowledge and skills in the field of chemistry. The curriculum is intended to prepare students for a variety of careers in science, engineering, and related fields. Students enrolled in chemistry courses may count those courses toward the requirements for the major in chemistry. [Letter grade only. Pre-
requite: CHEM 109 with a grade of C or 
higher: Weekly: 3 hrs lect, 6 hrs lab.]

MBA 699. Independent Study [1-4]. Research 
work. Open to grad students with consent of 
MBA director.

Chemistry

Chemistry majors and minors must earn a 
minimum grade of C in all chemistry courses.

LOWER DIVISION

CHEM 100. From Stars to Rocks: Being a 
Scientist in the 21st Century [3]. Introduction 
to the impact of astronomy, chemistry, physics, 
and geology on student life and society, practical 
aspects of the study of the disciplines and associ-
cated careers from different perspectives. [E-LD]

CHEM 107. Fundamentals of Chemistry [4]. 
Terminal course. Fundamental concepts and 
applications of general and inorganic chemistry. 
[Letter grade only. Weekly: 3 hrs lect, 3 hrs lab. 
Pre-
requite: math placement category I, II, or 
III. GE B.]

CHEM 109. General Chemistry I [5]. Fundamen-
tal concepts: chemical foundations, stoichiometry, 
chemical reactions, gases, thermodynamics, 
atomic theory, bonding, liquids, solutions. For stu-
dents in science, engineering, and related majors. 
[Letter grade only. Pre-
requite: CHEM 109 with a grade of C or 
higher: Weekly: 3 hrs lect, 6 hrs lab.]

CHEM 110. General Chemistry II [5]. Funda-
tmental concepts: kinetics; equilibrium; acids 
and bases; acid-base, solubility, and complex ion 
equilibria; entropy and free energy; electrochem-
istry; qualitative analysis. For students in science, 
engineering, and related majors. [Letter grade 
only. Pre-
requite: CHEM 109 with a grade of C or 
higher: Weekly: 3 hrs lect, 6 hrs lab.]

CHEM 128. Introduction to Organic Chemistry 
[3]. An introductory course in organic chemistry 
for natural resource majors. Topics will include struc-
ture and bonding, nomenclature, and 
common functional groups and their reactivity. 
[Pre-
requite: CHEM 107. Weekly: 2 hrs lect, 
3 hrs lab.]

CHEM 198. Supplemental Instruction [1]. Col-
laborative work for students enrolled in chemistry. 
[CR/NC. Rep.]

CHEM 228. Brief Organic Chemistry [4]. For 
majors in biological science/natural resource 
areas. Nomenclature, physical properties, syn-
thesis, and reactions of compounds represent-
ing major functional group categories. Reaction 
 mechanisms emphasized. [Letter grade only. 
Pre-
requite: CHEM 107 with a grade of C or 
higher or CHEM 110 with a grade of C or higher: 
Weekly: 3 hrs lect, 3 hrs lab.]

UPPER DIVISION

CHEM 308. Alchemy [3]. Inquiry into materials, 
methods, and processes of alchemy from per-
spectives of alchemist, contemporary chemistry. 
[GE B.]

CHEM 310. Inorganic Chemistry [3]. Advanced 
concepts: nuclear properties, molecular symme-
try, bonding, metallic and ionic solids, acids and bases, oxidation-reduction, non-aqueous media, chemistry and organometallic compounds of the representative elements. Letter grade only. Pre-requisite: CHEM 110 with a grade of C- or higher.


CHEM 324. Organic Chemistry I (3). First semester of a one-year sequence. Chemical bonding, chemical structure, spectroscopy, physical properties, stereochemistry, reaction mechanisms, and synthesis. Pre-requisite: CHEM 110 with a grade of C- or higher. Co-requisite: CHEM 324L.

CHEM 324L. Organic Chemistry I Laboratory (2). First semester of a year-long sequence. Laboratory techniques, library skills, and synthesis. Pre-requisite: CHEM 110 with a grade of C- or higher. Co-requisite: CHEM 324. Weekly: 6 hrs lab.

CHEM 325. Organic Chemistry II (3). Second semester of a one-year sequence. Chemical bonding, chemical structure, spectroscopy, physical properties, stereochemistry, reaction mechanisms, and synthesis. Pre-requisite: CHEM 324 and CHEM 324L, with a grade of C- or higher. Co-requisite: CHEM 323 and CHEM 325L.

CHEM 325L. Organic Chemistry II Laboratory (2). Second semester of a year-long sequence. Laboratory techniques, spectroscopy, library skills, unknown analysis, and synthesis. Pre-requisite: CHEM 324, CHEM 324L both with a grade of C- or higher. Co-requisite: CHEM 325. Weekly: 6 hrs lab.

CHEM 330. Molecular Modeling (3). Apply molecular modeling and computational chemistry methods (semiempirical, ab initio, and density functional) to problems in organic and inorganic chemistry, biochemistry, and molecular biology. Pre-requisite: CHEM 228 or CHEM 325 (C); CHEM 325L (C). Weekly: 2 hrs lect, 3 hrs lab.

CHEM 341. Quantitative Analysis (5). Principles and methods of classical chemical analysis. Introduction to instrumental methods. For chemistry majors and others who require a rigorous treatment of solution equilibria and training in precise quantitative lab techniques. [Pre-requisite: CHEM 110 with a grade of C- or higher. Weekly: 3 hrs lect, 6 hrs lab.]

CHEM 341L. Quantitative Analysis Laboratory (2). Principles and methods of classical chemical analysis. Introduction to instrumental methods. For chemistry majors and others who require a rigorous treatment of solution equilibria and training in precise quantitative lab techniques. [Pre-requisite: CHEM 110 with a grade of C- or higher. Weekly: 2 hrs lect, 2 hrs activ.]

CHEM 361. Physical Chemistry I (3). Application of quantitative mathematical methods to fundamental chemical systems: equilibrium thermodynamics and chemical kinetics. Pre-requisite: CHEM 341(C); PHYS 107 or PHYS 21(C); MATH 210 or MATH 215; all with grades of C- or higher. Weekly: 2 hrs lect, 2 hrs activ.

CHEM 362. Physical Chemistry II (3). Application of quantitative mathematical methods to fundamental chemical systems: quantum theory, spectroscopy, and statistical thermodynamics. [Pre-requisite: CHEM 324; CHEM 324L. CHEM 361 all with a grade of C- or higher. Weekly: 2 hrs lect, 2 hrs activ.]

CHEM 363. Physical Chemistry II Lab (2). Experimental application of quantitative mathematical methods to fundamental chemical systems: laboratory investigations in equilibrium thermodynamics, chemical kinetics, quantum theory, spectroscopy, and statistical thermodynamics. Pre-requisite: CHEM 341 with a grade of C or higher and CHEM 362 (C). Weekly: 6 hrs lab.

CHEM 370. Earth System Chemistry (3). Chemistry of the earth, including elemental cycling and speciation in the environment, the impact of man on biogeochemical processes, and the effects of climate change on the chemical/physical interactions occurring within and between the atmosphere, hydrosphere, and biosphere. Pre-requisite: CHEM 107 or CHEM 110 with a grade of C- or higher.

CHEM 399. Supplemental Work in Chemistry (1-3). Directed study for transfer student whose prior coursework is not equivalent to corresponding courses at HSU. Pre-requisite: Department approval required. Rep.

CHEM 410. Inorganic Chemistry II (3). Advanced concepts: chemistry and organometallic compounds of the transition metals, the lanthanoids, and the actinoids; reaction mechanisms; catalysis; solid state chemistry. Pre-requisite: CHEM 310. Offered alternate years.

CHEM 410L. Inorganic Chemistry II Laboratory (2). Advanced laboratory and instrumentation techniques: synthesis, characterization, and reactions of inorganic and organometallic compounds. Pre-requisite: CHEM 310 with a grade of C- or higher and CHEM 410 (C). Weekly: 6 hrs lab. Offered alternate years.

CHEM 434. Biochemistry I (3). First semester lecture of a one-year sequence. Biochemical energetics, introductory metabolism, nature and mechanism of action of enzymes. Pre-requisite: CHEM 110, any calculus course, CHEM 228 or CHEM 325 and CHEM 325L all with a grade of C- or higher.

CHEM 434L. Biochemistry I Laboratory (2). First semester of a year-long sequence. Laboratory techniques. Must be taken concurrently with CHEM 434. Pre-requisite: CHEM 228 or (CHEM 325 and CHEM 325L). Co-requisite: CHEM 434. Weekly: 6 hrs lab.


CHEM 438. Introductory Biochemistry (4). Brief course in biochemistry. The chemistry of amino acids, proteins, nucleic acids, lipids and carbohydrates. Includes enzyme kinetics, bioenergetics, structure and function of biological membranes, discussion of common laboratory methods. Pre-requisite: CHEM 228 or (CHEM 325 and CHEM 325L) with a grade of C- or higher. Weekly: 3 hrs lect, 1 hr disc.


CHEM 485. Seminar in Chemistry (1). Seminar presentations on current chemistry topics by majors with senior standing in chemistry. Capstone course. All chemistry majors are encouraged to attend. Pre-requisite: senior standing. Rep.


GRADUATE


Child Development

Pre-requisite courses must be passed with a minimum grade of C-.

LOWER DIVISION

CD 109Y. American Sign Language: Level I (3). Basic receptive and expressive communication skills using hands, upper body, and facial expressions. Orientation to deaf and hard-of-hearing communities. Only meets lower division GE requirements if CD 109Z is taken also.

CD 109Z. American Sign Language: Level II (3). Expand basic ASL skills, both receptive and expressive. Emphasis on "functions" or communicative purposes of people's interactions. Study deaf culture comparing hearing and deaf communities. Pre-requisite: CD 109Y or IA. GE C.

CD 180. Topics in Child Development (1-9). Introductory level content. CR/NC. Rep up to 9 units.

CD 209. Middle Childhood Development (3). Development of family/social context. Focus on children 7-12 years old. Biological and environmental influences determining normative and individual development. Interpret theories and research. [GE E]

CD 211. Perspectives: Professional Development (3). Investigation of employment alternatives, professional organizations and resources, and strategies for professional development and employment. 3 hrs per week field observation and participation may be required.

CD 211S. Perspectives: Professional Development (3). Investigation of employment alternatives, professional organizations and resources,
and strategies for professional development and employment. 3D hours of service learning required over the course of the semester.

CD 251. Children, Families & Their Communities [3]. Examination of the evolution of family roles and functions in the United States focusing on the relationships between family and the community. Application of selected families theories and discussion of family of diversity impacts.


CD 257. Supervised Work with Children I [4]. Build relationships and communication skills as a foundation for guidance. Create safe and healthy learning environments in a group setting. [Pre-requisite: CD 209 or CD 255 (C). Weekly: 3 hrs lect, 3 hrs lab.]

CD 280. Topics in Child Development [1.5-3]. Topics requiring background in the field. Oral and/or written communication. [Rep up to 9 units. CR/NC.]

CD 310. Perspectives: History & Theory [3]. History and theory with respect to US families and the institutions that serve them. Intellectual paradigms examined and related to sociocultural context and child development practices. [Pre-requisite: CD 251 and CD 209 or CD 253. CD 255. DCG-d.]


CD 355. Language Development [3]. Milestones in speech and language development from birth through adolescence. Theory; factors influencing acquisition and competency; language delays/disorders and their assessment and intervention. [Pre-requisite: CD 209 or CD 253 or CD 255.]

CD 356. Curriculum Development for Early Childhood [3]. Plan developmentally appropriate curriculum for early childhood programs (preschool through 3rd grade). Apply cognitive developmental theory to classroom. Plan activities; select equipment and materials; prepare goals and objectives. [Pre-requisite: CD 209 or CD 255.]

CD 357. Early Literacy [3]. Review principles. Analyze theoretical approaches to facilitating literacy. Examine literary resources. [Pre-requisite: CD 209 or CD 255.]

CD 358. Supervised Work with Children II [4]. Analyze and implement a constructionist approach with children. Developmental theory; role of adult in facilitating learning; interactive environments; group dynamics. [Pre-requisite: CD 257 or IA. Weekly: 3 hrs lect, 3 hrs lab.]

CD 362. Children & Stress [3]. Impact of major childhood stressors (divorce, blended families, death, illness, natural disasters) on development. Coping mechanisms and stress disorders. Stress prevention strategies, treatment. Implications for service professionals. [Pre-requisite: CD 352 (C), and CD 209 or CD 253 or CD 255.]

CD 366. Exceptional Children & Their Families [3]. Historical aspects, terminology, factors having an impact on family dynamics, legislation, and intervention models. [Pre-requisite: CD 255, and CD 209 or CD 253 or CD 255.]

CD 380. Topics in Child Development [5-8]. In-depth discussion of midlevel topics introduced in the Child Development Curriculum. such as new CD matrix requirements. [Pre-requisite: (C) CD 209 or CD 253 or CD 255 or CD 350. Upper division status recommended. Rep up to 9 units. CR/NC.]

CD 446. Structure & Content of Children's Thinking [3]. Current models for understanding intellectual processes in children. Apply models to thinking/learning processes in liberal arts content areas. Focus on children 5-12. [Pre-requisite: CD 354 (C), and CD 209 or CD 255. Weekly: 2 hrs seminar; 2 hrs lab.]

CD 464. Atypical Child Development [3]. Develop cognitive, social, motor, and communication skills in handicapped and at-risk children (0-6 years). Risk factors, family concerns, public policy, intervention. [Pre-requisite: CD 354 (C).]

CD 467. Working with Culturally Diverse Families [3]. Family attitudes, goals, and practices impacted by gender, social class, ethnicity, racial membership. Sensitize self to personal perspectives on diversity. Seminar format. [Rec: CD 352 or PSYC 303 or SOC 306. Must have junior standing or greater. DCG-4.]

CD 467S. Working with Culturally Diverse Families [3]. Family attitudes, goals, and practices impacted by gender, social class, ethnicity, racial membership. Sensitize self to personal perspectives on diversity. Seminar format. 20 hours of service learning required over the course of the semester. [Rec: CD 352 or PSYC 303 or SOC 306. Must have junior standing or greater. DCG-4.]

CD 469. Contemporary Issues in Child Development [3]. Define issues, trace historical antecedents, recognize underlying assumptions, organize relevant facts, draw warranted conclusions. Seminar format. [Pre-requisite: CD 310; junior standing or greater.]

CD 479. Policy Analysis & Advocacy [3]. Analyze public/private policies affecting families. Methods of influencing family policy development. [Pre-requisite: junior standing or greater; completed core in child development or family studies minor.]

CD 480. Selected Topics [5-3]. Focus on current issues. [Pre-requisite: IA; upper division status recommended. Rep.]

CD 482. Directed Field Experience/Internship [1-4]. Supervised community field work integrating theory into practice. [CR/NC. Arrange prior to semester enrolled. Rep once.]

CD 499. Directed Study [1-4]. Directed readings and assignments approved by instructor. [Rep.]

GRADUATE

CD 580. Special Topics in Child Development [1-3]. [Pre-requisite: grad standing. IA. Rep up to 9 units.]

Chinese Studies

LOWER DIVISION


CHIN 105L. Chinese Laboratory Level I [1]. Self-directed, subscription-based online language course.

CHIN 106. Chinese Level II [4]. Students develop basic conversational skills and beginning proficiency in reading and writing Mandarin Chinese. Authentic linguistic and cultural contexts may include music, dance, Chinese philosophy, and the history of idioms. [Rec: CHIN 105, GE C.]

CHIN 106L. Chinese Laboratory Level II [1]. Self-directed, subscription-based online language course.

CHIN 107. Chinese Level III [4]. Intermediate Mandarin Chinese language and cultures. Authentic linguistic and cultural contexts may include historical idioms, philosophy, religion, multicultural festivals and lifestyles in China, calligraphy, current events, and China-U.S. relations. [Rec: CHIN 106 or equivalent. DCG-n. GE C.]

CHIN 107L. Chinese Laboratory Level III [1]. Self-directed, subscription-based online language course.

CHIN 109. Introduction to Chinese Studies [3]. This course employs historical, philosophical, comparative, and interdisciplinary approaches to study Chinese cultures and societies in global and local contexts. [Rep. DCG-n. GE Area GE D.]

and contrast cultural and ethnic groups in China, and Chinese and U.S. worldviews, religion, education, and economy. [Rec: CHIN 107 or equivalent. DCG-d; GE C]

CHIN 307L. Chinese Laboratory Level IV [1]. Self-directed, subscription-based online language course.

CHIN 280. Special Topics [1-4]. This lower division seminar intends to provide language and cultural background knowledge to students and to encourage interaction between students and instructor/invited guest speakers and among the students themselves. [Rep.]

UPPER DIVISION

CHIN 396. Chinese Film Seminar [1]. This seminar presents and discusses three films from China, in Mandarin with English subtitles. [Rep up to 3 units. CR/NC.]

CHIN 480. Undergraduate Seminar [1-4]. Special topics in Chinese language, literature, history, and culture. [Rep.]

CHIN 499. Directed Study [1-4]. Directed readings and assignments approved by instructor. [Rep.]

Communication

These courses at one time had an SC prefix (Speech Communication).

LOWER DIVISION

COMM 100. Fundamentals of Speech Communication [3]. Introductory course. Develop oral communication abilities for functioning effectively in various settings. Fundamental communication theory. [GE A.]

COMM 103. Critical Listening & Thinking [3]. From listener’s consumer’s perspective, apply reasoned inquiry in evaluating marketplace communication. [GE A.]

COMM 105. Introduction to Human Communication [3]. Perceptual effects, verbal/nonverbal codes, and dynamics of interpersonal, group, and organizational communication. [GE D.]


COMM 110. Intercollegiate Speech & Debate [1-3]. Prepare for intramural/intercollegiate forensics. [Rep.]

COMM 213. Interpersonal Communication [3]. Discuss and apply concepts/theories relating to self and self/other communication.


COMM 222. Intercultural Communication [4]. Develop skills for communicating in various settings with people from different cultural backgrounds. [Pre-requisite: COMM 105 (C). DCG-d.]

COMM 235 / ANTH 235 / CRGS 235 / PSCI 235 / SOC 235. Act to End Sexualized Violence [1]. Analyze how sexualized violence impacts communities and operates as social control; learn to recognize victim-blaming, promote survivor-centered responses, foreground enthusiastic consent, and take action to transform our campus community. [CR/NC.]

COMM 280. Selected Topics in Speech Communication [1-4].

UPPER DIVISION


COMM 309B / WS 309B. Gender & Communication [3]. Critique relationship of gender to communication as viewed from perspectives of sciences, social sciences, and arts/humanities. [DCG-d; GE C, GE D.]


COMM 315. Communication and Social Advocacy [4]. Study of communication strategies utilized to create and resist social change in the context of historical/contemporary social movements. Possible topics: civil rights, suffrage movement, environment, animal rights. [Pre-requisite: COMM 100 or equivalent. DCG-d.]

COMM 319. Communication Research [4]. Social scientific and humanistic research methods. [Pre-requisite: COMM 105 (C) or IA.]


COMM 404. Theories of Communication Influence [4]. How communication influences human thought and behavior. Theories of argumentation and persuasion in various communication contexts. [Pre-requisite: COMM 105 (C) or IA.]

COMM 411. Organizational Communication [4]. Interpersonal, small group, and systemic communication in organizations. Improve skills; increase understanding of communication process. Substantial independent work with instructor supervision. [Pre-requisite: COMM 105 (C) or IA.]

COMM 414. Rhetorical Theory [4]. Major communication theories, from classical period to present, using rhetorical perspective. [Pre-requisite: COMM 105 (C) or IA.]

COMM 415. Communication Theory [4]. Multidisciplinary survey of theories from perspective of social sciences. [Pre-requisite: COMM 105 (C) or IA.]

COMM 416. Social Advocacy Theory & Practice [3]. Explores theories, models, and case studies pertaining to the study of social advocacy. [Pre-requisite: COMM 315 (C).]


COMM 426. Adolescent Communication [4]. Strategies of adolescents from diverse cultural backgrounds. Develop communication skills useful in working with them.

COMM 472. Convention Experience [1]. Purposeful attendance and thoughtful analysis of experience attending a regional or national academic communication convention. [Pre-requisite: COMM 105 (C) or IA. Rec: COMM 319. Communication majors/minors only. Rep 3 times; multiple enrollments in term.]


COMM 490. Capstone Experience [2]. Under guidance, complete and present senior project and finalize assessment portfolio. [Recommended before enrolling: COMM 105.]

COMM 495. Field Experiences in Speech Communication [1-6]. Either propose and develop a project (under direction of instructor) or perform supervised research on a project initiated by a professor. [Pre-requisite: IA. Rep.]

COMM 499. Directed Study [1-4]. Individual study on selected problems. Hours TBA. [Rep.]

Computer Science

Prerequisite courses must be passed with a minimum grade of C.

LOWER DIVISION

CS 100. Critical Thinking with Computers [3]. Apply critical thinking skills studying human and computer parallels, computer technology and methodology, and program development. [GE A.]

CS 111. Computer Science Foundations 1 [4]. Introductory programming covering problem decomposition, control structures, simple data structures, testing, and documentation. Students design and implement a number of programs. [Pre-requisite: MATH 101 (C) or MATH 101I (C) or MATH 102I (C).]

CS 112. Computer Science Foundations 2 [4]. Object-oriented programming, focusing on classes, instances, methods, encapsulation, inheritance, overloading, multiple inheritance, and exception handling. [Pre-requisite: CS 111. Weekly: 3 hrs lect, 2 hrs lab.]
CS 211. Data Structures [4]. Introduction to classic data structures and algorithms. Performance comparisons, big-O notation, trade-offs, arrays, linked lists, recursion, sorting, stacks, queues, trees, graphs, and hash tables. [Pre-requisite: CS 112 and MATH 253.]

CS 232. Python Programming [3]. Introduction to the Python language. Idiomatic language features such as lists, dictionaries, tuples, and sets. Use of Python classes and modules to accomplish complex tasks. [Pre-requisite: CS 111 or IA.]

CS 235. Java Programming [3]. Object-oriented programming; event handling; abstract windowing toolkit; applets, applications; Java database connectivity, applications programming interface and Java doc. [Pre-requisite: CS 112. Lecture/lab.]

CS 237. Bioinformatics Programming [3]. Introductory course on using software tools to solve biological problems. Students collaboratively model genomic and/or proteomic data with scripting and statistical languages. [Pre-requisite: CS 111 and BIOL 105.]

CS 243. Architecture [4]. Introduction to computer architecture including assembly language, computer arithmetic, performance measures, datapath, control, pipelining, and memory/storage design. [Pre-requisite: CS 112 and MATH 253. Lecture/lab.]

CS 279. Introduction to Linux [4]. Introduces the UNIX/Linux family of operating systems. Basic commands, utilities, system structures, scripting and tools are explored. Elements of system administration are presented. [Pre-requisite: CS 111. Lecture/lab.]

CS 280. Selected Topics in Computing [1-3]. Special topics in computer science. [Courses with this number have only freshman/sophomore prerequisites, excluding CS 243 and CS 312. Rep.]

CS 280L. Selected Topics in Computing [1-2]. Special topics in computer science. [Courses with this number have only freshman/sophomore prerequisites, excluding CS 243 and CS 312. Rep.]

UPPER DIVISION


CS 312. Algorithms [4]. Introduction to algorithmic thinking. Recurrence and solution techniques, fundamental algorithms including graph algorithms, algorithm design techniques, balanced trees, performance trade-offs. [Pre-requisite: CS 211; STAT 108 (C) or STAT 108i (C), and MATH 105 or MATH 109.]

CS 325. Database Design [4]. Introduction to database design and implementation. Relational model, entity-relationship model and diagrams, converting a model to a schema, elementary Structured Query Language (SQL). normalization. [Pre-requisite: CS 112; or GSP 270 and (CS 111 or CS 232 or GSP 318).]


CS 346. Telecommunications & Networks [4]. Introduction to the fundamentals of telecommunication and to the structure, implementation, and theoretical underpinnings of computer networking. [Pre-requisite: CS 243 and STAT 108 or STAT 108i.]


CS 444. Robotics [4]. A project-based introduction to robotic systems and software that controls them, including gearing, mechanics, AI control systems, and problem solving with robots. [Pre-requisite: CS 211 and STAT 108 or STAT 108i.]

CS 449. Computer Security [4]. Introduction to central concepts of computer security on networked systems. Topics include threats, cryptography, authentication, operating systems in security, legal and privacy issues. [Pre-requisite: CS 345.]

CS 458. Software Engineering [4]. Introduction to software engineering principles and methodologies in the context of a semester-long software team project. [Pre-requisite: CS 238 and CS 374.]

CS 461. Computational Models [4]. An introduction to the Chomsky hierarchy, automata, Church-Turing Thesis, computability, NP-completeness, and information theory. [Pre-requisite: CS 312, MATH 253, and MATH 105 or MATH 109.]

CS 480. Advanced Topics in Computing [1-3]. Advanced topics in computer science. [Pre-requisite: CS 211, sophomore standing or greater. Rep.]

CS 480L. Advanced Topics in Computing [1-2]. Advanced topics in computer science. [Pre-requisite: CS 211, sophomore standing or greater. Rep.]

CS 482. Internship [1-4]. Supervised experience in business, governmental, or service agencies, matching theory with practice. [CR/NC. Pre-requisite: IA. Weekly: 3 hrs per unit of credit.]

CS 489. Directed Study [1-4]. Individual study on selected topics. Open to advanced students with consent of faculty sponsor and Department approval required. [Rep by topic for a maximum of 12 units; multiple enrollments in term.]

CS 499. Directed Study [1-4]. Directed study and research. [Pre-requisite: CS 232 or CS 374.]

UPPER DIVISION

CRIM 125. Introduction to Criminology and Justice Studies [3]. Introduction to field of criminology and social justice conceptual framework; theoretical perspectives and methods; contemporary crime policy issues: individual to societal.

CRIM 225. Inequalities/Criminalization [4]. Examines the intersections of crime and inequality within families, communities, and nations. [Pre-requisite: CRIM 125.]

CRIM 225S. Inequalities/Criminalization [4]. Examines the intersection of crime and inequality within families, communities, and nations. The course includes experiential education that connects students to local responses to social justice issues. [Pre-requisite: CRIM 125.]

CRIM 280. Special Topics [1-4]. Special topics in criminology and justice. [Rep. with different topics.]

UPPER DIVISION

CRIM 325. Law and Society [4]. Examines creation and maintenance of systems of law and social control. Focus on courts, surveillance, policing, informal and formal mechanisms of social control impacting individuals to societies. Writing-intensive course. [Pre-requisite: CRIM 225 or CRIM 225S and junior standing or greater.]

CRIM 362. Gender, Sexualities and Crime [4]. Examines how beliefs about gender and sexuality intersect with the ways that crime happens and is treated in and out of the criminal justice system.


CRIM 420. Drugs and Society [4]. Why are some drugs legal while others are illegal? Explore social and historical processes shaping drug policy and the causes and consequences of the use and abuse of consciousness-altering substances. [Pre-requisite: CRIM 225 or CRIM 225S or SOC 222S; junior standing or greater.]

CRIM 430. Law and Dissent [4]. Law and social change. Law as technology of criminalizing and co-opting social movements. Mechanisms for appealing to State for rights and recognition. Civil disobedience, policing protests, and political prisoners. [Pre-requisite: CRIM 225 or CRIM 225S or SOC 222S; junior standing or greater.]


CRIM 432. Punishment and Justice in Cross-National Perspective [4]. Comparative examination of punishment and justice from primitive to contemporary societies and cross-culturally. Focus is on structural forces and impacted communities. [Pre-requisite: junior standing or greater.]

DGF diversity & common ground; d domestic; n non-domestic; GE general ed; IA instructor approval; lect lecture; prereq prerequisite; rec recommended preparation; rep repeatable for credit
CRIM 455. Policing Bodies: A Biopolitical History of Race, Riots and Surveillance [4].
Examines the evolution of policing in direct relation to the social, political, and economic tensions of different historical moments. [Pre-requisite: CRIM 225 or CRIM 225S or SOC 225S; junior standing or greater.]

Critical Race, Gender & Sexuality Studies

LOWER DIVISION

CRGS 108. Power/Privilege: Gender & Race, Sex, Class [3]. How gender is shaped by race, class, and sexuality. Analyze relations of power and privilege within contemporary U.S. society. [DCG-d. GE D.]


CRGS 235 / ANTH 235 / COMM 235 / PSCI 235 / SOC 235. Act to End Sexualized Violence [1]. Analyze how sexualized violence impacts communities and operates as social control; learn to recognize victim-blaming, promote survivor-centered responses, foreground enthusiastic consent, and take action to transform our campus community. [CR/NC]

CRGS 280. Selected Topics in Critical Race, Gender, and Sexuality Studies [1-4]. [Rep.]

CRGS 303, 313 / EDUC 313. Community Activism [3]. Develop organizational and activist skills, understand how social change occurs, link theory to concrete organizing practice in the community. Course blends critical analysis of organizing theories/methods with hands-on projects. [DCG-d.]

CRGS 321. Trans* Lives and Theory [3]. Intro to trans* lives and theory utilizing intersectional and multicultural approach. Topics include: trans* experiences; theories of trans* identity; gender and diagnosis; gender justice; trans* feminism and coalition building.

CRGS 330. Women of Color Feminisms [3]. Resistance and activism of women of color in US relative to race/sex/gender/class oppressions; intersectional analysis, theory in the flesh, womanism, feminism. Rotating focus: Chicana, Black, Indigenous, Asian-American, transnational feminisms. [Pre-requisite: CRGS 108 (C) or ES 105 (C) or WB 106 (C) or WS 107 (C).]

CRGS 360. Race, Gender & U.S. Law [4]. How are race, gender, and sexuality constructed and regulated in U.S. law? How have activists challenged such regulations? Discussion of slavery, misrepresentation, eugenics, birth control, marriage, welfare, and affirmative action. [DCG-d.]


CRGS 430. “Queer” Across Cultures [3-4]. Explores diversity of categories and meanings of sexuality, sex, and gender across cultures. Analyzes transformation due to colonialism, nationalism, and economic and cultural globalization. Explores intersections with race, class, nation.

CRGS 480. Selected Topics in Critical Race, Gender, and Sexuality Studies [1-4]. [Rep.]

CRGS 482. Internship [1-3]. Supervised internship in organization or institution. Workplace cultures; policy development/review; plan implementation. May lead to community service project. [Pre-requisite: CRGS 108 or ES 105 or ES 106 or WS 106 or WS 107.]

CRGS 485. Professional Development [1]. Majors link their experiences and knowledge with tools for obtaining entry-level positions; internships; graduate and professional program admission. Self-care strategies; resume, cover letter; CV, and statement of purpose writing workshop. [Pre-requisite: CRGS 108, CRGS 313 (C), CRGS 330 (C), CRGS 360 (C), CRGS 390 (C), CR/NC]

CRGS 491. Mentoring [1-2]. Advanced majors gain experience as teaching assistants working with a diverse body of students. [Pre-requisite: IA. Rep.]

UPPER DIVISION

CRGS 313 / EDUC 313. Community Activism [3]. Develop organizational and activist skills, understand how social change occurs, link theory to concrete organizing practice in the community. Course blends critical analysis of organizing theories/methods with hands-on projects. [DCG-d.]

CRGS 321. Trans* Lives and Theory [3]. Intro to trans* lives and theory utilizing intersectional and multicultural approach. Topics include: trans* experiences; theories of trans* identity; gender and diagnosis; gender justice; trans* feminism and coalition building.

CRGS 330. Women of Color Feminisms [3]. Resistance and activism of women of color in US relative to race/sex/gender/class oppressions; intersectional analysis, theory in the flesh, womanism, feminism. Rotating focus: Chicana, Black, Indigenous, Asian-American, transnational feminisms. [Pre-requisite: CRGS 108 (C) or ES 105 (C) or WB 106 (C) or WS 107 (C).]

CRGS 360. Race, Gender & U.S. Law [4]. How are race, gender, and sexuality constructed and regulated in U.S. law? How have activists challenged such regulations? Discussion of slavery, misrepresentation, eugenics, birth control, marriage, welfare, and affirmative action. [DCG-d.]


CRGS 430. “Queer” Across Cultures [3-4]. Explores diversity of categories and meanings of sexuality, sex, and gender across cultures. Analyzes transformation due to colonialism, nationalism, and economic and cultural globalization. Explores intersections with race, class, nation.

CRGS 480. Selected Topics in Critical Race, Gender, and Sexuality Studies [1-4]. [Rep.]

CRGS 482. Internship [1-3]. Supervised internship in organization or institution. Workplace cultures; policy development/review; plan implementation. May lead to community service project. [Pre-requisite: CRGS 108 or ES 105 or ES 106 or WS 106 or WS 107.]

CRGS 485. Professional Development [1]. Majors link their experiences and knowledge with tools for obtaining entry-level positions; internships; graduate and professional program admission. Self-care strategies; resume, cover letter; CV, and statement of purpose writing workshop. [Pre-requisite: CRGS 108, CRGS 313 (C), CRGS 330 (C), CRGS 360 (C), CRGS 390 (C), CR/NC]

CRGS 491. Mentoring [1-2]. Advanced majors gain experience as teaching assistants working with a diverse body of students. [Pre-requisite: IA. Rep.]

Dance

LOWER DIVISION


DANC 103T. Ballet II Skills Maintenance [1]. In conjunction with DANC 110. Students will continue to maintain dance technique. [Pre-requisite: IA. Rep.]

DANC 120. Jazz Dance Styles I [2]. Techniques and choreography for beginners. [Rep.]

DANC 120T. Jazz Styles I Skills Maintenance [1]. Beginning jazz techniques and choreography. Offered in conjunction with DANC 120. Students will continue to maintain dance technique. [Pre-requisite: IA. Rep.]

DANC 240. African Dance [1]. Learn dances, songs, and rhythms from various African regions and peoples. Experience African dance as prayer, celebration, a healing power; a demonstration of community, a joyful release of energy, and as an ecstatic connection to the universe. [Rep.]

DANC 243. Tap Dance [1]. A study of tap dance and rhythmic patterned movements at the beginning level. Historical perspective and terminology will be included. [Rep.]

DANC 245. Middle Eastern Dance [1]. A study of the ancient and ever-evolving Middle Eastern dance art form with a strong focus on Egyptian styles. May also include American Cabaret and Tribal styles and examples of contemporary influences on traditional Middle Eastern Dance. [Rep.]

DANC 247. Mexican Folklórico Dance [1]. Exploration of traditional Mexican dances and the historical and social context in which they are performed. Students will perform and become aware of dance terminology, steps, and style. [Rep.]

DANC 352. Bodyworks (3). A somatic, self awareness and expressive movement class. Using Eastern and Western movement practices, students will enhance general wellness, physical skills, and mind/body connections while gaining tools for life long discovery. [Repeatable one time.]


DANC 289. Choreography I [1]. Exploration of improvisational dance techniques at the beginning level as a performance tool for the development of choreography. Completed solos, duets, and/or trios will be presented. Required for dance majors and minors. [Pre-requisite: DANC 103 (C) or DANC 110 (C) or DANC 120 (C) or IA. Co-requisite: DANC 288. Rep.]

UPPER DIVISION

DANC 303. Dance in World Cultures [3]. Multi-ethnic approach to dance as a key to cultural understanding. Discover and appreciate dance as a traditional, social, and artistic expression of world peoples. Required for dance studies majors and minor. [Weekly 2 hrs lect; 2 hrs act. Rep. DCG-n. GE C.]

DANC 310. Ballet II [2]. For those at the intermediate level of ballet technique. [Pre-requisite: DANC 110 or IA. Rep.]

DANC 310T. Ballet II Skills Maintenance [1]. Intermediate level of ballet technique. Offered in conjunction with DANC 110. Students will continue to maintain dance technique. [Pre-requisite: IA. Rep.]

DANC 110T. Ballet I Skills Maintenance [1]. Beginning level of ballet technique. Offered in conjunction with DANC 110. Students will continue to maintain dance technique. [Pre-requisite: IA. Rep.]
**Economics**

**DCG diversity & common ground; d domestic, n non-domestic; GE general ed; IA instructor approval; lect lecture; prereq prerequisite; rec recommended preparation; rep repeatable for credit**

**LOWER DIVISION**

**ECON 104. Contemporary Topics in Economics** [1]. Analyze contemporary issues, including multicultural issues. Employ principles of microeconomics, macroeconomics, and the economics of discrimination and public choice. Economics role as a social science assisting in understanding causes, effects, and possible policies for current problems. [GE D]  


**ECON 210L. Supplemental Instruction** [1]. Supplemental instruction for ECON 210. Structured activities, problem sets, experiments, games, and review sessions geared toward helping students understand content, improve problem-solving skills, and enhance performance in ECON 210.  

**ECON 280. Special Topics in Economics** [1-4]. Supplemental activities for ECON courses. [Rep with different courses, multiple enrollments in term.]  

**UPPER DIVISION**


**ECON 305D. International Economics & Globalization — Additional Depth** [1]. Additional depth of content for ECON 305. Students receive single grade for combined four units of ECON 305 and ECON 305D. [Pre-requisite: ECON 210. Co-requisite: ECON 305.]  


**ECON 308. History of Economic Thought** [3]. From Greeks/Romans to modern times. Changing thought on enduring questions of efficiency and justice. Great debates over trade, price control, socialism, and limits to growth, as reflected in works from Plato to Marx, Keynes, and Kuznets. Economics and business administration majors MUST co-enroll in ECON 308D. [GE E]  

**ECON 308D. History of Economic Thought — Additional Depth** [1]. Additional depth of content for ECON 308. Students receive single grade for combined four units of ECON 308 and ECON 308D. [Pre-requisite: ECON 210. Co-requisite: ECON 308.]  


**ECON 310L. Supplemental Instruction** [1]. Structured activities, problem sets, experiments, games and review sessions geared toward helping students understand content, improve problem-solving skills, and succeed in ECON 310. [CR/NC.]  

**ECON 311. Intermediate Macroeconomics** [4]. Critique macroeconomic models, including macrodynamics and the microeconomic foundation of macroeconomic theory. Fiscal and monetary policy impacts on income, employment, interest rates, economic growth, inflation. [Pre-requisite: completed GE math or higher; ECON 210.]  

**ECON 322. Economic History of the U.S.** [3]. Trace development of American economy and underlying economic, legal, and social institutions. Interaction among economic, social, and political conditions. Critique conventional wisdom on economic interpretation of historical issues, such as the revolution, Civil War, and slavery. Full-time legislature-mandated requirement in US history. Economics and business administration majors MUST co-enroll in ECON 322D.  

**ECON 323D. Economic History of the U.S. — Additional Depth** [1]. Additional depth of content...
for ECON 323. Students receive single grade for combined four units of ECON 323 and ECON 323D. [Pre-requisite: Co-requisite: ECON 323.]


ECON 423. Environmental & Natural Resources Economics (3). Apply economic principles to public policies and management of natural resources (water, air, fisheries, forestry). Benefit/cost and economic impact analyses. Economics and busines administration majors MUST co-enroll in ECON 423D.


ECON 470S / ECON 570S. Sustainable Rural Economic Development (4). Role of development practitioner: Analyze rural economic development theory and strategies required for sustained growth and job creation consistent with community values. Local speakers; cases; field trip; service-learning component.


EDUC 489. Directed Study [1-4]. Open to grad students with IA.

Education

See also Educational Leadership, Elementary Education, Liberal Studies/Elementary Education, Secondary Education or Special Education.

LOWER DIVISION

EDUC 101. Creando Raices: Identity, Community Building and Social Justice (3). Develop skills related to community building and engagement from a social justice perspective. Apply the knowledge and experiences you bring to connect with the HSU campus and local community. Explore discourses and definitions of citizenship and social justice, community building initiatives, related majors and programs, and career opportunities. Learn how to be successful in life, community organizing and college. [E-LD]

EDUC 110. Introduction to Education [1]. Contemporary issues and problems.

EDUC 180. Special Topics [5-4]. Topics of current interest. [Rep.]

EDUC 285. Technology Skills for Educators [3]. Introduces computer novice to wide variety of computing topics and terminology in preparation for teaching career: Hands-on activities develop basic skills in many common computer applications. [CR/NC.]

EDUC 480. Special Topics Economics [1-4]. Topics of current interest. [Rep.]

EDUC 490. Capstone Experience [2]. Students produce a culminating project, normally in the form of a portfolio of the student’s work, under supervision of a faculty member in economics. [Pre-requisite: Senior standing; economics major; business administration: economics majors only. Rep.]

EDUC 499. Directed Study [1-4]. Open to grad students with IA.

GRADUATE

ECON 550. Economics of Energy & Climate Policy [4]. Economics of energy markets and regulatory institutions. Climate-change policies and impacts. Economic tools for reducing greenhouse-gas emissions. Economic analysis of energy efficiency and renewable energy projects. [Pre-requisite: MATH 101 or MATH 101I or MATH 102 or equivalent (C, grade standing.]

ECON 570S / ECON 470S. Sustainable Rural Economic Development (4). Role of development practitioner: Analyze rural economic development theory and strategies required for sustained growth and job creation consistent with community values. Local speakers; cases; field trip; service-learning component.


GRADUATE

EDUC 580. Special Topics [5-4]. Topics of current interest. [Rep.]

EDUC 610. Education in Society [3]. Prepares educational leaders who understand the purposes of education in a democracy and the competing social, economic, and political values that affect education and schooling in the United States.

EDUC 620. Pedagogy: Practice & Research (3). Interplay between educators’ experience and thinking, educational theories; questions about methodologies, and actions educators take to investigate them as they foster their own professional development.

EDUC 645. Academic Writing in Education (2). This course, taken in conjunction with EDUC 655 which focuses on the fundamentals of doing academic research, assists students in learning to write about their research utilizing an academic voice. [Co-requisite: EDUC 655]


EDUC 680. Special Topics [5-4]. Topics of current interest. [Rep.]


EDUC 690. Thesis [1-3]. Restricted to students in education grad program. [CR/NC. Rep.]

EDUC 692. Master’s Project [1-3].

EDUC 699. Independent Study [5-3]. Selected problems. [Pre-requisite: grad standing and IA. Rep.]
Elementary Education


EDL 645. Personnel Administration & Supervision (3). Issues related to school personnel procedures, from employment to retirement. Supervision of instruction, employee evaluation, collective bargaining.

EDL 646. The Principal: Leader & Administrator (3). Role and responsibilities of principal. Leadership concepts, decision making techniques, school organization, community relations, school climate, curriculum administration, and categorically funded projects.

EDL 647. Practicum: Diversity Issues & School Administration (2). Class assessment of contemporary issues most important for future school administrators.

EDL 648. Legal & Fiscal Aspects of School Administration (3). California Education Code and significant court cases. State and federal funding of schools. California funding formulas; school and district budgeting procedures. Court decisions and case analyses.

EDL 649. Ethics & School Administration (1). Review personal, institutional, and community values. Clarify their conflict and impact on school administration and leadership.

EDL 660. Technology & School Management (2). School administrator’s role/responsibility in providing leadership in computer technology and improved delivery and management of educational programs. Media technology for the instructional program.

EDL 680. Special Topics (1-5). [Rep.]

EDL 694. Elementary School Administration Fieldwork (3). This is a course required to learn and develop skills to become a school administrator. The fieldwork hours supply candidates with practical, actual experience in the elementary setting. [Repeatable one time.]

EDL 695. Secondary School Administration Fieldwork (3). This is a course required to learn and develop skills to become a school administrator. The fieldwork hours supply candidates with practical, actual experience in the secondary setting. [Prerequisite: 5 years of full time teaching experience. Repeatable once.]


EDL 710. Direct Experience with Children (1). Field experience with K-8 students. Prospective teachers assigned placements to observe/participate in public school classrooms and maintain log. Minimum 45 hours required. Meets prior fieldwork experience admission requirement for EED credential program. [CR/NC. Co-requisite: EED 310.]
ENGL 102. Composition and Rhetoric A (3). First semester of year-long course emphasizing analytical reading, critical thinking, and rhetoric. Writing developed through workshop, collaboration, reflection, and revision. Introduction to research. Preparation for ENGL 103. Culminates in semester project. [CR/NC. GE A.]

ENGL 103. Composition and Rhetoric B (3). Second semester of year-long writing course. Emphasizes rhetorical knowledge, writing in multiple genres, critical thinking, and writing as a socially situated practice. Writing workshop, research, collaboration, and revision. Culminates in writing portfolio. [Pre-requisite: ENGL 102. GE A.]

ENGL 104. Accelerated Composition and Rhetoric (3). Accelerated writing course emphasizing rhetorical knowledge, writing in multiple genres, critical thinking, and writing as a socially situated practice. Writing workshop, research, collaboration, and revision. Culminates in writing portfolio. [GE A.]

ENGL 104S. Accelerated Composition and Rhetoric (3). Honing academic writing and reading skills. Emphasis on research strategies, synthesis, critical reading, rhetorical distinctions. Workshop, lecture, and collaborative learning. Final assessment based on writing portfolio. Incorporates Service Learning pedagogy. [GE A.]

ENGL 105. Literature, Media, and Culture (3). Study written, visual, and musical genres, with an emphasis on understanding their role as texts in culture. Develop skills and understanding as a thoughtful reader, viewer, and listener. [GE C.]

ENGL 107. Critical Writing (3). Explore the relationship between language and logic; identify fallacies of argument; and craft traditional, multimodal and multimediated arguments in context of current social, economic, political, and environmental discourse. [Pre-requisite: ENGL 102 or ENGL 103 or ENGL 104 or ENGL 104S. GE A.]

ENGL 110. Developing Academic Literacy Lab (1). Individualized and small group support and instruction for students concurrently enrolled in any of the following courses. [Co-requisite: ENGL 102 or ENGL 103 or ENGL 104 or ENGL 104S. CR/NC. Rep.]

ENGL 120. Introduction to the English Major (4). Aims and methods of literary scholarship and criticism, to prepare for upper division work. Recommended first course in the major. One of four units is individualized instruction on assigned topics. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]  

ENGL 180. Special Topics in English (1-4). Topics in literature, culture, and language not covered in regularly scheduled classes.

ENGL 200. Academic Writing & Revision Workshop (3). Revising ENGL 103/ENGL 104 assessment portfolio. Workshop, lecture, critical reading of student texts. Students failing ENGL 103/ENGL 104 portfolio must complete ENGL 200 to fulfill GE. Students failing 200 portfolio must repeat 200. [Pre-requisite: grade of RP in ENGL 103, ENGL 104 or ENGL 104S.]

ENGL 211. Introduction to Creative Writing (4). Learn craft principles for multiple genres of creative writing: including poetry, fiction, and creative nonfiction. Gain awareness of literary conventions and writing workshop practices. Practice a range of techniques for generating and revising texts. [Weekly two 2-hr periods plus conferences. Rep.]

ENGL 215. Information Literacy and Writers Seminar (2). Directed and collaborative seminar to enhance mastery of writing, critical reading, and research and information literacy. [Rep once.]

ENGL 220. Literature, Identity and Representation (4). How social identities are created through language and texts; how categories of identity (gender, sexuality, race, nation, class, ethnicity, etc.) are central to the study of literature. [Pre-requisites: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 225. Introduction to Language Analysis (4). Examination of the nature of human language, including its formal structure, usage, and variation. Emphasizes applications to the study of literature, literacy and social identity. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 230 - ENGL 231. Survey of British Literature (4 - 4). Within chronological periods designated below, courses organized around major figures, topics, or genres to reveal lines of influence and development. [Rep.]

ENGL 232. Survey of American Literature (4). Analyze multi-ethnic U.S. poetry, fiction, drama, essay and autobiography from slave narratives to the present. Discuss literary texts in social, political and historical contexts, including formations of individual and national identity, definitions of “American” and “citizen”, and constructions of race, gender, genre, family, borders, war, art, and resistance. [DCG4.]

ENGL 240. World Literature (4). Read and discuss significant works of literature in translation. Topics vary: themes, genres, historical periods, major figures. [Rep.]

ENGL 280. Special Topics (1-4). Topics not covered in regularly scheduled courses. [Rep; multiple enrollments in term.]

ENGL 305. Postcolonial Perspectives: Literature of the Developing World (3). Read/discuss modern writing from Latin America, Asia, Africa, Central Europe, Middle East. Fiction, drama, poetry, essays [historical, political, anthropological], documentary films, videostories. [DCG-4. GE C.]

ENGL 306. Contemporary Texts (3). Selected texts from the 20th and 21st centuries in variable genres, forms and media, from traditional texts to graphic novels, film and new media. [GE C.]

ENGL 308BC / WS 308BC-C. Women in Literature (3). Works by women and men. How literature in various historical periods reflects cultural conditions and attitudes about women. How feminist movement relates to these issues. [DCG. ENGL 308B (domestic); ENGL 308B-C (non-domestic). GE C.]

ENGL 311. Environmental Writing (4). Write, analyze, and critique texts that explore questions of environmental justice. Quality writing considered for publication in Toyon: Multilingual Journal of Literature and Art. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 314. Creative Writing: Nonfiction (4). Write, analyze, and critique student nonfiction. For upper-division students. Quality writing considered for publication in Toyon: Multilingual Journal of Literature and Art. [Pre-requisite: ENGL 211 or IA.]

ENGL 315. Creative Writing: Fiction (4). Write, analyze, and critique student fiction. For upper-division students. Quality writing considered for publication in Toyon: Multilingual Journal of Literature and Art. [Pre-requisite: ENGL 211 or IA.]

ENGL 316. Creative Writing: Poetry (4). Write, analyze, and critique student poetry. For upper-division students. Quality writing considered for publication in Toyon: Multilingual Journal of Literature and Art. [Pre-requisite: ENGL 211 or IA.]

ENGL 318. Rhetoric for Writers (4). Examines principles of rhetoric, including how culture shapes and is shaped by language. Emphasizes rhetorical traditions and practices. Students apply rhetorical theories to their analysis and creation of text. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 319. Digital Rhetorics & Writing (4). Explores technology-mediated communication and digital rhetorics in informal culture. Examine and apply rhetorical theory to multimodal texts. Exploration and production of websites, interactive media, games, and digital presentations. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 320. Practical Criticism (4). Write critical essays about literature based on close readings of poetry, short stories, drama. Normally requires in-class writing, discussion of texts and student papers, and one highly polished essay per week. [Pre-requisite: ENGL 120 or ENGL 220.]

ENGL 323. Children’s Literature (3). Close study and evaluation of literature for children. For teachers, prospective teachers, parents. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 325. History of the English Language (4). Indo-European origins to the present. Social, cultural, and historic events affecting it. One of four units is individualized instruction on assigned topics. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 326. Language Study for Teachers (4). English phonetics, phonology, morphology, and syntax. Apply these fields to language arts instruction, including spelling, reading, composition, and other language skills. One of four units is individualized instruction on assigned topics. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]


ENGL 342. Special Topics in Shakespeare [4]. Instructor selects Shakespeare plays related by genre, chronology, or theme. [Pre-requisite: ENGL 320. Rep.]

ENGL 344. Young Adult Literature [3]. Study and respond to selected works appealing to young people. For teachers or prospective teachers of literature in secondary school. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 350. Topics in British & Postcolonial Literatures [4]. Examine specific themes, genres, historical periods, or figures. Topics vary. [Repeatable.]

ENGL 360. Special Topics in Literature [4]. Themes, genres, major figures, or movements. Not limited to British or American literature. Topics vary. [Rep.]

ENGL 370 / ENGL 570. Topics in the Literature of Power and Place [4]. Study writers, theories, and representations of place in relation to issues of power with regard to class, ethnicity, gender, and/or sexuality. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S. Rep once.]

ENGL 406. Contemporary Composition: Tradtional Studies & Digital Practice [4]. Current theories/methods of teaching writing, and current technology for studying and teaching in the English discipline. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 417. Second Language Acquisition [3]. Compare/contrast first and second language acquisition. Assess factors affecting the learning of a second language: interference of first language, structure of second, personality characteristics, age, cultural attitudes. [Pre-requisite: ENGL 225 or ENGL 326 or ENGL 326 or equivalent (G)].


ENGL 422. Advanced Research Writing [4]. Write, analyze, and critique a variety of genres. Learn strategies for advanced research and writing in a range of disciplines, including business, science, social science, art, and the humanities. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 424. Communication in Writing I [3]. Critical reading and writing of various modes of prose. Writing process of children and how writing tasks can be accessible to developing minds. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 426. Communication in Writing II [3]. Practice various modes of writing. Train in critical response to, and evaluation of, student writing. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

ENGL 435. Introduction to English as a Second/Foreign Language [4]. Examines who studies second/foreign languages and why; overviews historical and common language teaching methods and techniques; discusses teaching speaking, listening, reading, writing, grammar, vocabulary, and sociopolitical ramifications.

ENGL 436. Integrating Language & Content in English Instruction [3]. A practical course on how to teach content and language simultaneously (content-based instruction, CBI) to students who are still learning English. Examines rationales and various CBI methods, techniques, and lessons. [Pre-requisite: ENGL 435.]

ENGL 450. Tutoring Developing Writers [2]. Needs of culturally and ethnically diverse students and learning disabled. Intensive practical experience responding to writing with a variety of approaches. [CR/NC. Rep.]

ENGL 460. Literary Editing and Publishing (Toyon) [4]. Study and gain hands-on experience in the practice of literary editing, including manuscript selection, layout, design, and production. Produce an issue of the Toyon: Multilingual Journal of Literature and Art and learn about histories, trends, and opportunities in literary publishing. [Rep. Not repeatable for major credit.]

ENGL 461. Professional Concerns in Writing & Editing [4]. Practice professional skills in literary writing and editing. Learn to propose projects and seek funding support. Gain experience in arts administration. Work to increase the circulation of Toyon: Multilingual Journal of Literature and Art. [Rec. ENGL 460. Rep.]


ENGL 465C / ES 465C / WS 465C. Multicultural Issues in Literature/Languages [4]. Themes, genres, figures, theories, or movements in literary or linguistics study in relation to issues of ethnicity and/or gender. [Pre-requisite: ENGL 320. Rep. DCG-d.]

ENGL 480. Special Topics [1-4]. Topics not covered in regularly scheduled courses. [Rep.]

ENGL 482. Internship in Teaching Writing, Literature, or Linguistics [2]. Supervised practice teaching in a college setting. [Pre-requisite: senior standing and IA. Rep once.]

ENGL 490. Senior Project Seminar [2]. Culmination of the major. [Pre-requisite: senior standing. CR/NC.]

ENGL 499. Directed Study [1-4]. For advanced students with IA. [Rep.]

ENGL 536. Problems in Form, Genre, Media [4]. Cultural analysis in U.S. and beyond, represented in various modes, e.g. law/literature of slavery and resistance, transnational narratives, multicultural queer narratives, pastoral genre in U.S. and Britain. [Rep.]

ENGL 548. Reading Historically [4]. Intensive study of topics in historicist reading, including Black Britain, economic theories and the novel, Virginia Woolf and history, etc. [Pre-requisite: acceptance into English MA program or IA. Rep.]

ENGL 560. Special Topics in Literature [4]. Topics vary; themes, genres, major figures, or movements. Not limited to British or American literature. [Pre-requisite: acceptance into English MA program or IA. Rep.]

ENGL 570 / ENGL 370. Topics in the Literature of Power and Place [4]. Study writers, theories, and representations of place in relation to issues of power with regard to class, ethnicity, gender, and/or sexuality. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S and acceptance into English MA program or IA. Rep once.]

ENGL 580. Special Topics Seminar [1-3]. Study of literature or study and practice of various kinds of writing. When offered as workshop, units do not fulfill degree requirements. [Pre-requisite: acceptance into English MA program or IA. Rep.]

ENGL 581. Practicum in Teaching Writing (3). Designed for graduate teaching associates in English during their first semester teaching. Provides information, support, theoretical grounding, dialogue, and practice in writing instruction. [Pre-requisite: IA. Rec. ENGL 406, ENGL 450, ENGL 612.]

ENGL 600. Graduate Studies Introduction [4]. Approaches to literary and cultural studies, composition, pedagogy, language studies. Research and scholarship in the discipline. Planning and writing a thesis. Avenues for publishing, for teaching, for pursuing the Ph.D. [Pre-requisite: acceptance into English MA program or IA.]

ENGL 605. Cultural Studies Introduction [4]. Cultural studies as academic practice. History of the field, affiliations with other interdisciplinary areas; practical applications; relationship between aesthetics and politics. [Pre-requisite: acceptance into English MA program or IA.]

ENGL 611. Reading and Writing Pedagogy I [4]. Theoretical and practical tools for improving literacy skills in the classroom. Common reading and writing practices, theories and principles of assignment design, response to student work, identifying diverse learning needs. [Pre-requisite: acceptance into English MA program or IA.]

ENGL 612. Theory of Rhetoric and Composition [4]. In-depth overview of modern composition studies (1950 to the present), also contemporary rhetoric as it impacts best practices of university-level writing instruction. [Pre-requisite: acceptance into English MA program or IA.]
ENGL 614. Teaching ESL Reading and Writing [4]. Explores the theory, research, and practice of teaching second language (L2) reading and writing, relationship between first and L2 reading and writing, and common challenges in L2 reading and writing. [Pre-requisite: acceptance into English MA program or IA.]

ENGL 615. Digital Humanities: Public History, Archives, & Scholarly Communication [4]. Provides broad training and professional development in curating, archiving, exhibiting, critiquing, and publishing materials across a range of media. Histories, methodologies, tools, and debates of digital humanities. [Pre-requisite: acceptance into English MA program or IA.]

ENGL 618. Linguistic & Rhetorical Approaches to Writing [4]. Advanced study of rhetorical theory and linguistic methodologies. Emphasizes application of theory to writing and the teaching of writing. [Pre-requisite: ENGL 329 (or equivalent) and acceptance into English MA program or IA.]

ENGL 620. Seminar in Critical Theory [4]. Concentrated study of a topic in critical theory and cultural analysis, e.g. critical legal studies, postcolonialism and globalization, aesthetics and politics, gender and sexuality, ecocriticism. [Pre-requisite: acceptance into English MA program or IA.]

ENGL 635. Introduction to English as a Second/Foreign Language [4]. Examines who studies second/foreign languages and why; overviews historical and common language teaching methods and techniques; discusses teaching speaking, listening, reading, writing, grammar, vocabulary, and sociopolitical ramifications [Pre-requisite: acceptance into English MA program or IA.]

ENGL 681. Internship in Teaching Literature [2]. Supervised practice in college, high school, elementary school, or community setting. [Pre-requisite: ENGL 600, a grad literature seminar; acceptance into English MA program or IA. Repeat once.]

ENGL 682. Internship in the Teaching of Writing [2]. Supervised practice in college, community college, high school, elementary school, or community setting. [Pre-requisite: acceptance into English MA program or IA. See department. Repeat.]

ENGL 684. Internship in Teaching ESL [2]. Supervised practice with English as a second language learners in college, language institute, community college, high school, or community setting. [Pre-requisite: ENGL 417, ENGL 635, and acceptance into English MA program or IA. Repeat.]

ENGL 890. Master’s Project [1-4]. Culmination of MA degree; project demonstrating advanced achievement in language, literature, literary criticism, creative writing, or teaching of writing. [Pre-requisite: acceptance into English MA program or IA. Repeat.]

ENGL 894. Field Experience: Observe and Reflect [4]. A course for students in the Master’s International Program. Requires an extensive descriptive and reflective journal based on experience teaching overseas with the Peace Corps. [Pre-requisite: acceptance into English MA program or IA.]

ENGL 895. Critical Analysis of Field Experience [2]. The culminating activity for students in the Master’s International Program. Requires the writing of an essay based on the student’s experience teaching overseas. [Pre-requisite: acceptance into English MA program or IA.]

ENGL 899. Independent Study [1-4]. Open to students acceptance into English MA program with IA. [Rep.]

Environment & Community

GRADUATE

EC 610. Environment & Community Research [3]. Exploration of frameworks for understanding “environment” and “community” and diverse approaches to social science environment and community research. Development of skills necessary for critical knowledge consumption and production.

EC 615. Graduate Colloquium [1]. Environment and Community MA graduate students develop, share, and present work related to their thesis or project. Also linked with the Environment and Community Program’s Speaker Series.

EC 620. Economic-Political Dimensions [3]. Provides analytical frameworks for understanding the role of political and economic institutions, discourses, organizations, and movements. Variable topics. Repeatable with different content. [Rep 6 times.]

EC 630. Socio-Cultural Dimensions [3]. Provides understanding of race/ethnicity, class, gender place, and culture, including their social construction and varied intersections. Variable topics. Repeatable with different content. [Rep 5 times.]

EC 640. Ecological Dimensions [3]. Provides a basic understanding of at least one ecological process or cycle within the context of human-environment relationships. Variable topics. Repeatable with different content. [Rep 3 times.]

EC 680. Special Topics [1-3]. Intensive study of a special topic related to environment and community relationships. Repeatable 4 times with different content. [Rep 3 times.]

EC 690. Master’s Thesis or Project [1-6]. Individual work on thesis or project required for M.A. in Social Science degree. [Rep twice for a maximum of 18 units.]

EC 691. Comprehensive Exam [3]. Comprehensive exam for the Master’s degree in Social Science. Students, with their advisor’s approval, may elect to take a comprehensive exam instead of completing a thesis or project for their culminating experience. [CR/NC.]

EC 695. Field Research [1-3]. Field investigation of issues and/or phenomena related to a student’s culminating experience. [Rep 5 times for a maximum of 9 units.]

Environmental Resources Engineering

LOWER DIVISION

ENGR 115. Introduction to Environmental Resources Engineering [3]. Case studies in water quality, water resources, energy resources, and geotechnical resources. [Pre-requisite: MATH 101T (C) or MATH 102 (C) or MATH 103 (C). Open to environmental resources engineering majors. Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 210. Solid Mechanics: Statics [3]. Particle and rigid body equilibrium; vector concepts; equivalent systems of forces; centroids; moments of inertia, friction. [Pre-requisite: MATH 109 or completed Calculus I. Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 211. Solid Mechanics: Dynamics [3]. Kinetics and kinematics of particles; work and energy, impulse and momentum; kinematics and plane motion of rigid bodies. Engineering design applications. [Pre-requisite: MATH 110, ENGR 210, ENGR 215 (C). For engineering majors, this is prerequisite to PHYX 211. Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 215. Introduction to Design [3]. Engineering design process, including critical analysis of problems, teamwork, Internet, word processing, spreadsheets, computer-aided drawing, engineering design applications. [Pre-requisite: ENGR 115, and MATH 109 or completed Calculus I (C). Open to environmental resources engineering majors. Weekly: 2 hrs lect, 3 hrs lab.]


ENGR 280. Selected Topics in Engineering [1-3]. Selected topics offered at the lower division level as demand warrants. Lect/lab as appropriate. [Pre-requisite: vary with topics. Rep with different topics.]

ENGR 299. Directed Study [1-3]. Directed (independent) undergraduate study or research at the lower division level. [Rep: multiple enrollments in term.]

UPPER DIVISION

ENGR 305. Appropriate Technology [3]. Engineering technology principles. Energy, waste disposal, food production technologies. Lab exercises involve working systems at Campus Center for Appropriate Technology. [Pre-requisite: PHYX 106 or PHYX 109 or ENST 123 (2 units, each unit must be a different topic). Rec: lower division science GE. Not allowed for credit toward engineering major: Weekly: 2 hrs lect, 3 hrs lab. GE B.]

ENGR 308. Technology & the Environment [3]. Environmental and resource-related case studies applying technology to supply society’s needs and demands. [Pre-requisite: completed sustainability-focused; sustainability-related; activ activity; (C) may be concurrent; coreq corequisite(s); CR/NC mandatory credit/no credit; DA dept approval; disc discussion;
lower division science GE. Weekly: 2 hrs lect, 2 hrs activity. GE B.)

\[ \text{ENGR 313. Systems Analysis} \] [3]. Microeconomics, systems analysis, and math modeling in environmental resources, allocation, linear and nonlinear optimization. Case studies in resource management. Engineering design applications. [Pre-requisite: MATH 1210, ENGR 115, ENGR 225. Weekly: 2 hrs lect, 3 hrs lab.]

\[ \text{ENGR 322. Environmental Data Modeling \& Analysis} \] [4]. Introduction to probability theory, probabilistic models, and stochastic processes. Parameter estimation and model evaluation for environmental systems models with applications in environmental engineering. [Pre-requisite: MATH 210 and ENGR 325 [C]. Weekly: 3 hrs lect, 3 hrs lab.]

\[ \text{ENGR 325. Computational Methods for Environmental Engineering II} \] [3]. Introduction to numerical methods for environmental engineering analysis, design and resource management using the Fortran programming language. [Pre-requisite: ENGR 225 and MATH 110. Weekly: 2 hrs lect, 3 hrs lab.]

\[ \text{ENGR 326. Computational Methods for Environmental Engineering III} \] [3]. Numerical methods for linear and differential equations used in environmental engineering analysis, design and resource management problems. [Pre-requisite: ENGR 325, and ENGR 331 or ENGR 333. Weekly: 2 hrs lect, 3 hrs lab.]


\[ \text{ENGR 331. Thermodynamics \& Energy Systems I} \] [3]. Thermodynamics’ 1st and 2nd laws, thermodynamic properties of materials, thermodynamic processes, system and control volume analysis; application to energy systems. [Pre-requisite: CHEM 110, MATH 210 and ENGR 211. Weekly: 2 hrs lect, 3 hrs lab.]

\[ \text{ENGR 333. Fluid Mechanics} \] [4]. Fluid properties; fluid statics; flow concepts; control volume analysis; continuity; energy and momentum concepts; boundary layer concepts; drag theory; flow measurements; flow in pipes, ducts, open channel flow; dimensional analysis and similarity. Engineering design applications. [Pre-requisite: ENGR 211, ENGR 325, MATH 210. Weekly: 3 hrs lect, 3 hrs lab.]

\[ \text{ENGR 351. Introduction to Water Quality} \] [4]. Analytical methods for water quality assessment. Physical, chemical, and biological factors of water quality. Introduction to environmental risk assessment and water/wastewater treatment processes. ERE majors are strongly encouraged to complete this course before starting their 400-level ENGR courses. [Pre-requisite: ENGR 115, CHEM 110, BIOL 105. Weekly: 3 hrs lect, 3 hrs lab.]

\[ \text{ENGR 371. Energy Systems \& Technology} \] [3]. Introduction to key topics and technologies associated with modern energy systems. Covers principles of thermodynamics and electricity and their application to energy systems. [Pre-requisite: MATH 105, CHEM 107 or CHEM 103, PHYS 107 or PHYS 211.]

\[ \text{ENGR 399. Supplemental Work in Engineering} \] [1-3]. Directed study for transfer student whose prior coursework isn’t equivalent to corresponding courses at HSU. [Department approval required. Rep; multiple enrollments in term.]

\[ \text{ENGR 410. Environmental Health \& Impact Assessment} \] [3]. Legislative and regulatory foundations for Environmental Impact Statements and their preparation, life cycle principles, sustainability, professional ethics, risk analysis, collecting data and evaluating its adequacy and accuracy, interpreting data, and predicting impacts associated with proposed activities. Engineering aspects of communicable disease control and exposure to toxic materials. [Prerequisites: ENGR 351, ENGR 440 [C]. Corequisite: ENGR 313.]


\[ \text{ENGR 418. Applied Hydraulics} \] [3]. Pipe networks; transient pipe flow; open channel flow; irrigation, drainage, and flood control; numerical methods for hydraulic analysis. Engineering design applications. [Pre-requisite: ENGR 326 and ENGR 333. Weekly: 2 hrs lect, 3 hrs lab.]

\[ \text{ENGR 421. Advanced Numerical Methods for Engineers I} \] [3]. Finite difference and finite element methods for linear and nonlinear partial differential equations; simulation of flow, mass and energy transport in environmental systems; large scale parameter estimation methods. Engineering design applications. [Pre-requisite: ENGR 313 and ENGR 326. Weekly: 2 hrs lect, 3 hrs lab.]

\[ \text{ENGR 434. Air Quality Management} \] [3]. Nature, causes, and effects of air pollution; air quality standards, their measurement and control; Gaussian Plume model; particulate and gaseous pollutant control devices. Engineering design applications. [Pre-requisite: CHEM 110, ENGR 416[C]. Weekly: 2 hrs lect, 3 hrs lab.]


\[ \text{ENGR 440. Hydrology I} \] [3]. Hydrologic cycle; math models of rainfall runoff; surface and ground water hydrology; probabilistic design concepts.

\[ \text{ENGR 441. Hydrology II} \] [3]. Rainfall runoff processes; infiltration and groundwater vadose zone; water quality models and operational (stochastic) hydrology; groundwater quality. Engineering design applications. [Pre-requisite: ENGR 440. Weekly: 2 hrs lect, 3 hrs lab.]

\[ \text{ENGR 443. Groundwater Hydrology} \] [3]. Groundwater and vadose zone hydrology; well hydraulics; introduction to groundwater planning, management, and remediation; large-scale flow and mass transport simulation models. [Pre-requisite: ENGR 416 [C] and ENGR 440 [C]. Weekly: 2 hrs lect, 3 hrs lab.]

\[ \text{ENGR 445. Water Resources Planning \& Management} \] [3]. Engineering applications of economics, risk analysis, and mathematical simulation and optimization models to water resource planning. Multiobjective and sequential decision problems in reservoir operation and water quality management. Engineering design applications. [Pre-requisite: ENGR 440. Weekly: 2 hrs lect, 3 hrs lab.]

\[ \text{ENGR 448. River Hydraulics} \] [3]. River morphology; water and sediment transport; channel formation; river restoration. Design applications. [Pre-requisite: ENGR 416 [C], ENGR 440 [C]. Weekly: 2 hrs lect, 3 hrs lab.]

\[ \text{ENGR 452. Drinking Water Treatment Engineering} \] [3]. Drinking water treatment systems: physico-chemical processes, reactor kinetics, applications to the design of specific water treatment operations. Engineering design applications. [Pre-requisite: ENGR 416.]

\[ \text{ENGR 453. Wastewater Treatment Engineering} \] [3]. Wastewater treatment systems; bench-scale treatment operations. Engineering design applications. [Pre-requisite: ENGR 416 [C]. Weekly: 2 hrs lect, 3 hrs lab.]

\[ \text{ENGR 455. Engineered Natural Treatment Systems} \] [3]. Use and design of free surface constructed wetlands and vegetated gravel beds for treating wastewater. For design engineers and wetland scientists involved in the planning, sizing, designing, and/or management of wetlands used to treat a wide range of wastewater problems. [Pre-requisite: ENGR 351, ENGR 416 [C] and ENGR 440 [C] or IA.]


\[ \text{ENGR 473. Building Energy Analysis} \] [3]. Thermodynamics applied to energy analysis of buildings. Heating and ventilating systems; lighting; building envelopes; process loads. Analyze campus buildings. Engineering design applications. [Pre-requisite: ENGR 326, ENGR 331, ENGR 333, PHYS 211. Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 478. Electricity Grids & Distributed Renewable Energy [3]. Foundations and topics in the design and operation of electric power systems (the Grid), integrating renewable electricity generation with the grid, and distributed energy systems with generation, storage, and demand-side management. [Prerequisite: ENGR 322, ENGR 331, PHYX 315, and ENGR 326 (C). Open to ERE majors. Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 480. Selected Topics in Engineering [1-3]. Offered as demand warrants. Lect./lab as appropriate. [Prerequisite: vary with topic. Rep with different topics.]

ENGR 481. Selected Topics with Engineering Design [3]. Selected topics as demand warrants. [Prerequisite: ENGR 332. Rec: varies by topic. Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 492. Capstone Design Project [3]. Culminating ERE design experience based on knowledge gained from previous coursework. Application of the engineering design process to develop a system, process or management plan to solve a significant, open-ended ERE problem. [To be taken final senior semester within 16 units of graduation]. Open to senior and grad level ERE students only. Pre-requisite: ENGR 313, ENGR 322, ENGR 326, ENGR 330, ENGR 331, ENGR 333, ENGR 351, PHYX 211.]


ENGR 498. Directed Design Project [1-3]. Directed (independent) application of engineering design process to develop a system, process or management plan. May be taken only once for credit. [Prerequisite: IA.]

ENGR 499. Directed Study [1-3]. Directed (independent) undergraduate study or research. [Prerequisite: IA.]

GRADUATE


ENGR 532. Energy, Environment & Society [4]. This interdisciplinary graduate level course emphasizes technical, environmental, and socioeconomic dimensions of energy utilization in contemporary society. Covers technology and policy issues related to conventional and alternative energy resources. [Pre-requisite: graduate standing; working knowledge of introductory physics, chemistry, and statistics; or IA.]

ENGR 533. Energy & Climate Change [4]. This interdisciplinary graduate level course provides a rigorous introduction to the science and policy dimensions of global climate change, as well as the prospects for climate change mitigation. [Pre-requisite: graduate standing and ENGR 532, or IA.]

ENGR 534. Air Quality Management [3]. Nature, causes, and effects of air pollution; air quality standards, their measurement and control; Gaussian Plume model; particulate and gaseous pollutant control devices. Engineering design applications. [Pre-requisite: CHEM 110 and ENGR 416. Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 535. Development Technology [4]. Technologies important in international development, including energy production, habitat design, waste recovery, water acquisition, and agriculture. [Weekly: 3 hrs lect, 3 hrs lab.]


ENGR 543. Groundwater Hydrology [3]. Groundwater and vadose zone hydrology; well hydraulics; introduction to groundwater planning, management, and remediation; large-scale flow and mass transport simulation models. [Pre-requisite: ENGR 416 (C) and ENGR 440 (C). Weekly: 2 hrs lect, 3 hrs lab.]}

ENGR 545. Water Resources Planning & Management [3]. Engineering applications of economics, risk analysis, and mathematical simulation and optimization models to water resource planning; multiobjective and sequential decision problems in reservoir operation and water quality management. Engineering design applications. [Pre-requisite: ENGR 440. Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 548. River Hydraulics [3]. River morphology; water and sediment transport; channel formation; river restoration. Design applications. [Pre-requisite: ENGR 416 (C), ENGR 440 (C). Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 551. Water & Wastewater Treatment Engineering [4]. Water and wastewater treatment systems; bench-scale treatment operations. Engineering design applications. [Pre-requisite: ENGR 351 and ENGR 416; both with passing grades of C. Weekly: 3 hrs lect, 3 hrs lab.]

ENGR 555. Engineered Natural Treatment Systems [3]. Use and design of free surface constructed wetlands and vegetated gravel beds for treating wastewater. For design engineers and wetland scientists involved in the planning, sizing, designing, and/or management of wetlands used to treat a wide range of wastewater problems. [Pre-requisite: ENGR 351, BIOL 105, ENGR 115; or IA.]

ENGR 571. Advanced Thermodynamics & Energy Systems [3]. Continues ENGR 331. Application of 2nd law of thermodynamics; irreversibility, availability, power and refrigeration cycles, combustion, and phase equilibria. Engineering design applications. [Pre-requisite: CHEM 110, PHYX 211, ENGR 331, ENGR 333; all with passing grades of C. Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 573. Building Energy Analysis [3]. Thermodynamics applied to energy analysis of buildings. Heating and ventilating systems; lighting; building envelopes; process loads. Analyze campus buildings. Engineering design applications. [Pre-requisite: ENGR 326, ENGR 331, ENGR 333; all with passing grades of C. Weekly: 2 hrs lect, 3 hrs lab.]


ENGR 577. Solar Thermal Engineering [3]. Analyze and design solar thermal systems. Availability of solar radiation; collector operation; system performance; simulation models. Engineering design applications. [Pre-requisite: ENGR 322, ENGR 331, ENGR 333; all with passing grades of C. Weekly: 2 hrs lect, 3 hrs lab.]

ENGR 680. Selected Topics in Environmental Systems [1-3]. [Rep.]


ENGR 700. Professional Development in Engineering [1-3]. Directed study for engineering professionals desiring advanced or specialized instruction, especially that leading to credentialing/certification. [Pre-requisite: IA. Rep.]

Environmental Science & Management

ESM 105. Natural Resource Conservation [3]. Broad aspects; history of humanity in relation to land use; human populations in relation to resources; history of conservation movement; present day conservation problems. [GE D.]

ESM 108. Environmental Science and Climate Change [3]. Examination of critical thinking and the scientific method; how these intellectual tools have been used to develop an understanding of the global environment; special attention on climate change. [GE B.]

sustainability-focused, sustainability-related; activity; [C] may be concurrent; coreq corequisite(s); CR/NC mandatory credit/no credit; DA dept approval; disc discussion.
ESM 200. Inscape & Landscape [3]. Examines how people view the world, how these worldviews originate, and how they influence our perception of the world around us. [Prerequisites: sophomore standing or above. GE E.]


ESM 230. Environmental Methods [3]. Introduction to quantitative tools for environmental problem solving. Basic modeling skills in the context of topics related to environmental issues associated with air, water, land, /earth, and energy. [Pre-requisite: ESM 105 or GEOG 106] and STAT 109; sophomore standing or greater. Weekly: 2 hrs lect, 3 hrs lab.


ESM 301/GEOG 301. International Environmental Issues & Globalization [3]. Cross-disciplinary examination of economic development, world regions, population trends, resource exploitation, sustainability, impact of resource extraction in key world locations, and increasing global environmental connectivity, integration, and interdependence. [GE D.]

ESM 302. Biodiversity on Earth [3]. Suite of biodiversity around the world and forces that affect it. Origins of this diversity, advantages of variability in the environment for human life, and contemporary challenges to diversity. [GE B.]

ESM 303. Applied Natural History & Ecology [4]. Biotic communities of the north coast of California and the identification, ecology and life history of the organisms living there. Includes basic principles of ecology, field techniques for studying organisms in the wild, and methods of collecting and recording field data. [Pre-requisite: ESM 105 and ESM 230 and STAT 105 or STAT 108 or STAT 109; AND (BOT 105 or BOT 107); sophomore standing or greater.]


ESM 308. Ecotopia [3]. Interdisciplinary study of redwood ecosystem biophysical and cultural characteristics. Guest presentations, disc/activ sessions. [Pre-requisite: lower division GE area B completed. GE B.]

ESM 309B. Environmental Communication [3]. This course is intended for advanced students who want to learn the basic theories, strategies, and techniques used to communicate a body of scientific knowledge to the public in a comprehensible manner. [Pre-requisite: sophomore standing or greater; GE C; GE D.]

ESM 325. Environmental Law & Regulation [3]. Overview of laws, policy, and institutions used to regulate natural resource management and protect the environment. Legal principles; property rights; federal, state, and international environmental legislation; and regulatory authorities. [Pre-requisite: ESM 105. Weekly: 3 hrs lect.]


ESM 351. Environmental Interpretation Field Trip [1]. Visit sites illustrating issues and techniques of natural resources interpretation. [CR/NC. Three-day field trip.]


ESM 355. Principles of Ecological Restoration [3]. Scientific basis for reconstruction of degraded ecosystems. Focus on practices designed to improve ecological structure and function, and meeting societal needs for sustainable and functional ecosystems. [Pre-requisite: BOT 105; SDOL 260; ESM majors; junior standing or greater.]

ESM 360. Introduction to Environmental Planning Methods [3]. Interdisciplinary planning methods. Application of ecological, economic, and social information and analysis for environmental planning from wildlands to working landscapes, rural and urban communities, at site and landscape scales. [Must have sophomore standing or greater. Rec: ESM 105 and ESM 210. Weekly: 2 hrs lect, 3 hrs lab.]

ESM 365. Local Government Planning [3]. History of resource and land-use planning, planning theory, planning processes, and land development in the US. Overview of current land-use planning issues, processes, and techniques with emphasis at the local and regional levels. [Pre-requisite: ESM 360. Weekly: 3 hrs lect.]

ESM 370. Energy, Technology & Society [3]. Interdisciplinary course in energy, the environment, and society. Focuses on energy and climate change, integrating physical, social, and policy dimensions. [Pre-requisite: CHEM 107 or CHEM 109, ESM 230; junior standing or greater.]}


ESM 410. Geospatial Capstone [4]. Bring your multidisciplinary education to bear on real-world issues. Work with clients to apply geospatial methods and technology to environmental and social challenges. Develop professional analytic, communication and presentation skills. [Prereq: ESM 230, GSP 216, GSP 316 and GSP 370; senior standing. Weekly: 3 hours lecture and 2 hours activity.]

ESM 411. Energy & Climate Capstone [4]. Bring your multidisciplinary education to bear on real-world problems. Work with client agencies to evaluate and address critical energy and climate challenges in our community and beyond. [Pre-requisite: ESM 215 and senior standing. Weekly: 3 hours lecture and 2 hours activity.]

ESM 415. Park & Recreation Planning Capstone [4]. Bring your multidisciplinary education to bear on real-world projects, working with client agencies to apply the planning process to parks and natural resource recreation areas. [Pre-requisite: ESM 215 and senior standing. Weekly: 3 hours lecture and 2 hours activity.]

ESM 420. Ecosystem Analysis [3]. Inventory and analysis methods for ecosystems based on systems ecology, sustainability science, and resilience theory. Focus on human impacts and management efforts in local landscapes. [Pre-requisite: ESM 303 or IA. Weekly: 2 hrs lect, 3 hrs lab.]

ESM 425. Environmental Impact Assessment [3]. Legislative/judicial history and current implementation of National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). Practice analyzing and preparing impact assessments for development projects. [Rec: ESM 325. Weekly: 2 hrs lect, one 3-hr lab.]

ESM 430. Natural Resource Management in Protected Areas [3]. Principles/practices managing natural resources in wildland recreation areas. Fire, air; water quality; erosion; endangered species; exotic species control; hazardous features. Case studies. [Pre-requisite: STAT 108 or STAT 109 or STAT 105; ESM 303; upper division standing. Weekly: 2 hrs lect, 3 hrs lab.]

ESM 435. Grant Proposal Writing [2]. Fundamentals of grant proposal writing, from conception of the idea to writing a coherent and persuasive proposal. Combines critical thinking, communication and quantitative reasoning skills, and critical evaluation of proposals. [Weekly: 2 one-hr lect.]

DCG diversity & common ground; d domestic; n non-domestic; GE general ed; IA instructor approval; lect lecture; prereq prerequisite; rec recommended preparation; rep repeatable for credit

2021-2022 Humboldt State University Catalog

Environmental Science & Management 249

ESM 440L. Managing Recreation Visitors Lab [1]. Field trips to state and national parks and forests. [Pre-requisite: ESM 215.]


ESM 453. Environmental Education & Interpretation Capstone [4]. Bring your multidisciplinary education to bear on real-world projects. Work with client agencies to develop interpretive exhibits, panels, and programming, and with local schools to develop science based curriculum. [Pre-requisite: ESM 353, ESM 450; and senior standing. Weekly: 3 hrs lecture and 2 hours activity.]

ESM 455. Ecological Restoration Capstone [4]. Bring your multidisciplinary education to bear on real-world projects. Work with client agencies to apply the restoration process, devise methods and goals for restoration, develop management strategies for restored sites. [Pre-requisite: ESM 303; ESM 355; ESM majors; or senior or graduate standing. Weekly: 3 hrs lecture and 2 hours activity.]


ESM 462. Coastal & Marine Planning [3]. Approaches, policies, and politics related to planning and management in coastal and ocean areas. Consider ways to balance coastal and marine ecosystem conservation with a variety of human uses. [Pre-requisite: ESM 360.]

ESM 471. Spatial Analysis Lab Projects [1]. Intended for students with experience in GIS and/or Remote Sensing who require the facilities and software tools available in the Spatial Analysis Lab for special projects or research. This course does not count towards graduation units. [Pre-requisite: GSP 216 or GSP 270 or GSP 326 or GSP 330 or GSP 370 or GSP 436 or GSP 470 or GSP 570. AU. Rep 3 times.]

ESM 475. Environmental Planning & Policy Capstone [4]. Bring your multidisciplinary education to bear on real-world projects. Apply research skills in response to a community client’s request for assistance with an environmental planning or policy topic. [Pre-requisite: ESM 365; ESM 425 (C); senior or graduate standing. Weekly: 3 hours lecture and 2 hours activity.]

ESM 480. Selected Topics [5-3]. Planning, ecology, administration, law, ethics, or other topics of current interest. [Pre-requisite: IA. Variable format.]

ESM 480L. Selected Topics/Lab [5-3]. Planning, ecology, administration, law, ethics, or other topics of current interest. Lab/field format. Service Fee. [Rep with different topics. May require prereqs.]

ESM 482. Internship [2-3]. Students implement the theory and practice of their major by working for a public agency or private firm/organization. Advanced standing and instructor consent. [CR/NC.]

ESM 499. Directed Study [1-3]. Individualized research/study project. [Pre-requisite: junior/senior standing. Rep.]

GRADUATE

ESM 510. Research Methods in Human Dimensions of Natural Resources [4]. Overview of key quantitative and qualitative research methods related to human dimensions of natural resources. Social science research ethics, design, implementation, and analysis techniques. Practice implementing methods. [Pre-requisite: graduate standing. Weekly: 3 hours lecture and 3 hours lab.]

ESM 555. Applied Ecological Restoration [4]. Project-based course provides graduate students with experience related to the planning, design, implementation, and monitoring of restoration projects, including research techniques. Additional rigor required for graduate students. Prior coursework in ecology, conservation and/or ecological restoration is recommended. [Pre-requisite: graduate standing; IA.]

ESM 580. Selected Topics [1-3]. Interpretation, planning, ecology, administration, law, ethics, other topics of interest. [Rep with different topics.]

ESM 597. Mentoring & Teaching-Associate Training [1-4]. Train in course preparation and delivery. Advanced majors and grad students take this prior to or concurrent with teaching-assistant or teaching-associate assignments. No credit toward graduate degree.

ESM 620. Ecosystems & Society [3]. Exploration of sustainability science based approaches to an integrated understanding of ecosystems and society and implications for ecological and social resilience, adaptation, and transformation. [Pre-requisite: must have graduate standing.] [CR/NC.]

ESM 685. Graduate Seminar [1-3]. Topics of current interest. [Rep.]


ESM 699. Directed Study [1-4]. [Rep.]

Environmental Studies

LOWER DIVISION

ENST 120. Introductory Seminar in Environmental Studies [1]. This seminar introduces the environmental studies major and facilitates thoughtful selection of a “emphasis area.” [Pre-requisite: environmental studies major; senior/graduate standing excluded. CR/NC.]

ENST 123. CCAT Practicum: Variable Topics [1]. Guided learning of appropriate technologies and permaculture systems. Project experience at Campus Center for Appropriate Technology (CCAT). Variable topics may include: green building, urban homesteading, eco-craft, and organic gardening. [CR/NC. Repeatable.]

ENST 155. Topics in Nature/Culture [3]. This course introduces students to the interdisciplinary field of environmental studies by approaching an environmental problem, such as climate change or human-animal relationships, from a variety of disciplinary perspectives.

ENST 280. Special Topics [3]. Special topics in environmental studies. [Rep.]

ENST 295. Power, Privilege & the Environment [4]. Explores the environment as a central element in the reproduction of patterns of power and privilege along lines of race, class, and gender: Examines how environmental conflicts challenge these patterns. [Pre-requisite: ENST 120 and environmental studies major: DCG-d.]

UPPER DIVISION

ENST 395. Environmental Studies Research & Analysis [4]. Introduction to academic research approaches appropriate to environmental studies; includes qualitative, quantitative, and examination of environmental knowledge. [Pre-requisite: ENST 295 and Environmental Studies major.]

ENST 480. Special Topics [3]. Special topics in environmental studies. [Rep.]

ENST 490. Environmental Studies Capstone Experience [4]. Capstone experience for environmental studies majors. Students to apply knowledge of environmental systems to practical problems. Course will entail either group of individual projects. [Pre-requisite: ENST 395, Environmental Studies major with junior standing or above.]

ENST 490S. Environmental Studies Capstone Experience with Service Learning [4]. Capstone experience for environmental studies majors. Students to apply knowledge of environmental systems to practical problems. Course will entail either group of individual projects. [Pre-requisite: ENST 395, Environmental Studies major with junior standing or above.]

ENST 498. Directed Study [1-4]. Assigned reading or research in specific topic. Open to advanced students with IA. [Rep.]

250 Environmental Studies 2021-2022 Humboldt State University Catalog
ES 105. Introduction to US Ethnic Studies [3]. Comparative history of racialized groups in the US, with particular emphasis on the manner in which race, ethnicity, class, and gender inform this history. [DCG-d. GE D or LD GE F.]

ES 106. Introduction to Black Studies [3]. Course examines literature, music, dance, and film produced by people of African descent in the US. Studies race, class, and gender to assess similarities and differences in the Black experience. [DCG-d. GE C or LD GE F.]

ES 107. Chicano/Latin@ Lives [3]. Chicano/Latin@ cultural production and its relationship to US culture; to other US ethnic and racial groups; and to Latin American homelands. Readings focus on writers from various Latin@ groups. [DCG-d. GE C or LD GE F.]

ES 245. Hip Hop & the Black Experience [3]. Utilizes Hip Hop to explore the complexities of America’s system of oppression, privileging the voices of Black people and other oppressed groups as they struggle for political, social, and economic power. [DCG-d.]

ES 280. Selected Topics in Ethnic Studies [1-4]. [Rep.]

UPPER DIVISION

ES 302. Asian American Studies: An Introduction [3]. Discuss the diversity of Asian American experiences, literature, critical thought, and movement-building through a range of authors and genres. Address social, historical, intellectual, and literary contexts, analyze intersections of race, ethnicity, gender, class, sexuality, ability, and nationality. [UD GE F.]

ES 304 / GEOG 304. Migrations & Mosaics [3]. Role of international and internal migrations in shaping American population and society. Examine full range of ethnic mosaics that result from the mixing and clashing of diverse cultures. Put own lifeline in national perspective. [DCG-d. GE D.]

ES 305. African American Cultural History [3]. Within context of American history, analyze African American heritage from its origins through the present. [DCG-d. GE C or GE F.]

ES 306. World Regions Cultural Studies [3]. Culture, values, and social interaction in cultures of a world region [North America, Latin America, Oceania, Middle East, Asia]. [Rep for each different region offered. DCG-d. GE D.]


ES 314. Chicano Culture & Society in America [3]. From establishment of 16th century Spanish frontier settlements, Formation of Mexican regional cultures; status of an American racial/cultural minority. [GE F, DCG-d.]


ES 326. Media & the Politics of Representation [4]. Examines historical and contemporary constructions of race in US media, binary of blackness/whiteness, and representation of various ethnic groups in relation to binary. Analyzes race, class, gender, sexuality, nation. [DCG-d.]


ES 339. Critical Studies in Latin American Film Seminar [1]. This seminar presents and discusses films from the Hispanic world, in Spanish with English subtitles. [CR/NC. Rep 3 times.]


ES 480. Selected Topics in Ethnic Studies [1-4]. [Pre-requisite: two previous courses in ethnic studies or IA. Rep with different topics.]

ES 499. Directed Study [1-3]. Individual study on selected problems. Advanced students only. Take only one ES 499 class per semester and four ES 499 classes during HSU academic career: Both provisions subject to petition. [Pre-requisite: IA.]

GRADUATE


ES 699. Independent Study [1-3], Individual study on selected problems. [Pre-requisite: IA. Rep.]

Film

For courses marked with an asterisk (*), frequency depends on staff resources/student need.

LOWER DIVISION

FILM 102. Introduction to Radio, TV & Film [3]. Major developments from beginnings to the present. [GE C.]

FILM 109. Film Comedy Around the World [3]. This course explores world cultures through the lens of comedy. Comedy reveals power groups, attitudes about gender, ethnicity, race, class, and other social issues. Students will view and discuss films. [DCG-d. GE C.]

FILM 260. Film Festival [2]. Pre-screenings and behind-the-scenes activities for the world’s oldest student-run film festival that will deepen sociopolitical understanding and provide insights to contemporary short films processes, aesthetics, and constructs. [Rep.]

UPPER DIVISION

FILM 305. Art of Film: Beginning to 1950s [3]. Motion picture as popular art. Contributions of individual artists in historical contexts. [GE C.]

FILM 306. Art of Film: 1950s to the Present [3]. Motion picture as popular art. Contributions of individual artists in their historical contexts. [GE C.]

FILM 315. Filmmaking I [4] Introduction to fundamentals of filmmaking using the basic tools of 16mm and digital media. [Rep.]

FILM 317. Art of Film Discussion: Pre 1950s [1]. Motion picture as popular art. Contributions of individual artists in their historical contexts. Film majors and minors to take concurrently with FILM 305. [Co-requisite: FILM 305. Rep. 3 times.]

FILM 318. Art of Film Discussion: Post 1950s [1]. Motion picture as popular art. Contributions of individual artists in their historical contexts. Film majors and minors to take concurrently with FILM 306. [Co-requisite: FILM 306.]

FILM 350. Writing for Film [4] Writing short scripts and treatments for indie experimental, documentary, and narrative films using 3-Act structure and story-craft. Developed scripts and treatments are offered to production courses. [Offered alternate years.]

FILM 360. Science, Environment & Natural History Digital Production [4]. Examines how science, environment, and natural history films are used as a tool of scientific inquiry, discovery, and social change. [Rep. 3 times. Offered alternate years.]

FILM 362. Social Change Digital Production [4]. Examines how social change digital media is a tool that increases awareness and modifies behavior. Develop and produce short digital media social change productions. [Rep. 3 times. Offered alternate years.]

FILM 375. Filmmaking II [4]. Intermediate
course expanding on fundamentals of lighting, cinematography, digital editing and audio field production. Create short fiction and nonfiction films. [Pre-requisite: FILM 315 or IA. Repeatable.]

FILM 378. Film/Digital Production Workshop [1-4]. Special topics in film and/or digital production. Structure and curriculum varies. [Rep.]}

FILM 380. Film Studies [1-4]. * Topics fit needs/interests of class. [Rep.]

FILM 415. Filmmaking III [4]. Advanced course in film completion processes for picture and audio including sound design, color correction, and visual effects. Create short fiction and nonfiction films. [Pre-requisite: FILM 375 or IA. Rep.]

FILM 425. Film Directing & Production Processes [4]. Students examine professional directing practices for the moving image, including production processes every director must master. [Offered alternate years.]

FILM 455. Grant Writing [4]. Fundamental practices of proposal development and grant writing: applicable to all professions. Hands-on activities as grantee and grantor: Emphasis on post-graduation grant writing. Includes working with a fiscal agent. [Rep 3 times. Offered alternate years.]

FILM 455S. Grant Writing [4] Fundamental practices of proposal development and grant writing: applicable to all professions. Hands-on activities as grantee and grantor: Emphasis on post-graduation grant writing. Includes working with a fiscal agent. [Rep 3 times. Offered alternate years.]

FILM 480. Special Topics in Film [1-6]. * Variable topics. Check with Department for upcoming topics. [Rep; multiple enrollments in term.]

FILM 489. Directed Study [1-6]. * Individual work on selected problems in Film. Hours TBA. [Rep; multiple enrollments in term.]

Fisheries Biology

LOWER DIVISION

FISH 260. Fish Conservation & Management [3]. Introduction to fisheries science. Overview of relationships between fish and people, including law and regulatory agencies, management programs, and conservation.

UPPER DIVISION


FISH 311. Fish Physiology [3]. Physiology of lower vertebrate organ systems. Efficient management and culture of the animal as a renewable resource. [Pre-requisite: FISH 310, STAT 109. Weekly: 2 hrs lect, 3 hrs lab.]

FISH 314. Fishery Science Communication [3]. Technical literature; library usage; reporting. Organize/communicate written and oral scientific information. [Pre-requisite: STAT 109 and FISH 310. FISH 310 may be taken concurrently. Weekly: 2 hrs lect, 2 hrs disc.]

FISH 320. Limnology [3]. Lake formation and aging. Physical, chemical, and behavioral relationships between organisms and their environment. [Pre-requisite: CHEM 107 or CHEM 108 or equivalent, and STAT 109.]

FISH 320L. Limnology Practicum [1]. Survey lakes and streams. Survey equipment; analytical instruments: field and lab methods. [Co-requisite: FISH 320. Weekend field trips.]

FISH 335. U.S. & World Fisheries [3]. Location of, and species taken in, commercial fisheries. Their importance to world food supply. Methods of harvest and products marketed. Economic problems of common property resources. [Pre-requisite: IA. Weekly: 2 hrs lect, 3 hrs lab. Some weekend and after-hours field trips required.]

FISH 358. Fisheries Data Analysis [4]. Introduction to quantitative fisheries methods including statistical methods, basic sampling and experimental design, and models for fish growth, recruitment, mortality, and population dynamics. Focus on applications and interpretation. [Pre-requisite: MATH 101 or MATH 101i or MATH 102 or equivalent, and STAT 108 or STAT 108i or STAT 109. Weekly: 3 hrs lect, 2 hrs lab. Rep.]

FISH 370. Aquaculture [4]. Culture and breeding of freshwater and marine fishes, sport and commercial. Operating fresh and saltwater hatcheries. Care and use of fishes as experimental animals. [Pre-requisite: FISH 310 or IA. Weekly: 3 hrs lect, 3 hrs lab.]

FISH 375. Mariculture [3]. Controlled spawning, cultivation, harvesting, processing, and marketing of marine and estuarine algae, invertebrates, and fishes. How laws and regulations, engineering, and economics affect culture on a worldwide basis. Culture of food items used in rearing marine and estuarine species. [Pre-requisite: FISH 310 or ZOOL 314. Lab requires after-hours time at marine lab.]

FISH 380. Techniques in Fishery Biology [3]. Overview of fishery research methods: sampling theory, collection gear; stock identification methods, age and growth, tagging, and estimation of population size. [Pre-requisite: FISH 310 (C) and STAT 109 (C) or IA. Weekly: 2 hrs lect, 3 hrs lab.]

FISH 410. Topics in Advanced Ichthyology [3]. Advanced topics in ichthyology such as phylogeny, zooloogy, fish families of the world, early life history of fish, or biology of particular groups of fish (e.g., sharks and rays). Repeatable with different content. [Pre-requisite: FISH 310. Weekly: 2 hrs lect, 3 hrs lab. Rep 4 times.]

FISH 434. Ecology of Freshwater Fish [4]. Distribution, diversity, and abundance of freshwater and anadromous fish. Covers evolution, life history strategies, behavior, physiology, and interactions between species, including relevance for conservation and management. Focus on local species, particularly Pacific salmon and trout. [Pre-requisite: STAT 109, FISH 310 or IA. Weekly: 3 hrs lect, 3 hrs lab.]

FISH 435. Ecology of Marine Fish [4]. Environmental influences on life history, behavior, growth, and survival of marine and anadromous fishes. [Pre-requisite: FISH 310 and (OCN 109 if taken prior to fall 2015) or OCN 109 and OCN 109L, or IA. Weekly: 3 hrs lect, 3 hrs lab. Some weekend and after-hours field trips.]

FISH 443. Problems in Water Pollution Biology [3]. Nature, scope, magnitude, and significance of water pollution; common pollutant materials; their nature, sources, and effects in natural waters; detection, surveillance, and abatement. [Pre-requisite: FISH 320. FISH 320L or 8 units of upper division biology, one year of chemistry. Weekly: 2 hrs lect, 3 hrs lab.]

FISH 458. Fish Population Dynamics [4]. Classical theory and analysis of exploited fish populations. Mortality, growth, recruitment, and yield models are derived, evaluated, and applied to fishery data. Estimates of survival and population size. [Pre-requisite: MATH 105, STAT 109, and IA. Weekly: 3 hrs lect, 2 hrs computer lab.]

FISH 460. Advanced Fish Conservation & Management [3]. Overview of theoretical and practical constraints of fish conservation and management with focus on use of quantitative tools. Examination of how laws and values shape the objectives of management. [Pre-requisite: FISH 434 (C) or FISH 435 (C).]

FISH 470. River Fish Restoration Ecology [3]. Principals of ecological restoration applied to river fishes, emphasis on biological, physical and
watershed processes. [Pre-requisite: FISH 310. Weekly: 2 hrs lect, 3 hrs lab.]

**FISH 471. Fish Diseases** (3). Prevent, diagnose, manage, and treat infectious and noninfectious fish diseases. [Pre-requisite: FISH 310 or equivalent. Weekly: 2 hrs lect, 3 hrs lab.]

**FISH 472. Advanced Aquaculture** (3). Principles of hatchery management, including the biology of fish reproduction, spawning techniques, egg incubation, and larval rearing. [Pre-requisite: FISH 370 or FISH 375. Weekly 2 hrs lect 3 hrs lab.]

**FISH 474. Conservation Genetics of Fish and Wildlife** (4). Application of molecular methods to conservation, management, ecology, and evolution of fish and wildlife. [Pre-requisite: BIOL 105 or equivalent. Weekly: 3 hrs lect, 3 hrs lab.]

**FISH 476. Ecology of Running Waters** (3). Characterization of the physical and chemical environment, adaptations, distribution, and interactions of riverine biota, ecosystem structure and dynamics, and response to human alteration. [Pre-requisite: BIOL 330 or IA. Weekly: 2 hrs lect, 3 hrs lab.]

**FISH 478. Fisheries Oceanography** (3). Introduction to how climate and oceanographic processes affect the dynamics of marine populations, ecosystems, and fisheries, and how oceanography informs management of marine ecosystems. [Weekly: 2 hrs lect, 2 hrs lab. IA.]

**FISH 480. Selected Topics in Fisheries** (1-4). [CR/NC. Rep with different topics.]

**FISH 480L. Selected Topics in Fisheries Lab** (1-2). [CR/NC. Rep with different topics.]

**FISH 490. Honors Thesis Research** (1-4). [Pre-requisite: FISH 314 or BIOL 363 or equivalent; GPA of 3.2 or higher; Prior to enrollment, file a formal application, including a research proposal. Rep.]


**GRADUATE**

**FISH 510. Topics in Advanced Ichthyology** (3). Advanced topics in ichthyology such as phylogeny, zoogeography, fish families of the world, early life history of fish, or biology of particular groups of fish (e.g. sharks and rays). Repeatable with different content. [Pre-requisite: FISH 310 or equivalent. Weekly: 2 hrs lect, 3 hrs lab. Rep. 4 times.]

**FISH 558. Fish Population Dynamics** (4). Theory and analysis of exploited fish populations. Meets jointly with FISH 458. Students in FISH 558 are expected to develop a fish populations dynamics case study and report findings to class. [Pre-requisite: STAT 109 and MATH 105 (C). Weekly: 3 hrs lect, 2 hrs computer lab.]

**FISH 570. River Fish Restoration Ecology** (3). Principals of ecological restoration applied to river fishes, emphasis on biological, physical and watershed processes. [Pre-requisite: FISH 310 or IA. Weekly: 2 hrs lect, 3 hrs lab.]

**FISH 571. Advanced Fish Disease & Pathology** (3). Epidemiology, pathology, diagnosis, and treatment of infectious and noninfectious fish diseases. [Pre-requisite: FISH 471 and IA. Weekly: 2 hrs lect, 3 hrs lab.]

**FISH 576. Ecology of Running Waters** (3). Characterization of the physical and chemical environment, adaptations, distribution, and interactions of riverine biota, ecosystem structure and dynamics, and response to human alteration. [Pre-requisite: BIOL 330 or any upper division ecology class. Weekly: 2 hrs lect, 3 hrs lab.]

**FISH 578. Fisheries Oceanography** (3). Introduction to and directed study of how climate and oceanographic processes affect the dynamics of marine populations, ecosystems, and fisheries, and how oceanography informs management of marine ecosystems. [Weekly: 2 hrs lect, 2 hrs lab. IA.]


**FISH 580L. Advanced Study in Fishery Biology & Management Lab** (1-2). Theories, principles, techniques. [Pre-requisite: IA. Corequisite: FISH 380L concurrently as appropriate to instructor and topic. Rep with different topic and instructor.]

**FISH 685. Graduate Fisheries Seminar** (1). Discuss and review advanced topics. [Pre-requisite: grad standing. CR/NC. Rep.]


**FISH 695. Research Problems in Fisheries** (1-4). Individual research on advanced lab or field problems. [Pre-requisite: grad standing. Rep.]


**Forest, Watershed, and Wildland Sciences**

**GRADUATE**

**FWWS 501. Research Methods and Planning** (2). Methods of inquiry into the ecology and management of forests and wildlands. Review and composition of grant proposals and current literature. Planning and presentation of scientific research. [Open to upper-division students in FWWS for required for all FWWS graduate students.]


**FWWS 695. Field Research Problems** (1-3). Directed individual research on field or laboratory problems. [Passing grade of B- required. Rep.]


**Forestry**

**LOWER DIVISION**


**FOR 117. Forestry First Year Seminar** (1). Review of current topics in forestry, fire, watershed, or soils. Presentations by speakers and development of professional writing and oral presentation skills. [CR/NC. Rep.]

**FOR 130. Dendrology** (3). US trees/shrubs. Ranges, botanical characteristics, commercial and noncommercial uses, growth rates, and relation of plants to their total environment. Identify under field conditions and using herbarium specimens. [Weekly: 2 hrs lect, 3 hrs lab.]

**FOR 131. Forest Ecology** (3). Ecological principles applied to forest management. Production ecology, biogeochecology, disturbances, environmental factors, populations, community ecology, forest succession, and forest classification/description. [Weekly: 2 hrs lect, 3 hrs lab.]

**FOR 170. Conclave: Logging Sports Competition** (1). Local or regional logging sports competition. Safe use of traditional and modern forest operations equipment. Does not count towards forestry major. [Rep. CR/NC.]


**FOR 222. Forest Health & Protection** (2). Biotic and abiotic disturbance agents. Identification and ecology of important forest insects and diseases of North America. Predisposing factors that increase susceptibility of forests. Management strategies to reduce impacts. [Pre-requisite: FOR 130 or FOR 131. Weekly: 1 hr lect, 3 hrs lab.]

**FOR 223. Introduction to Wildland Fire** (2). An introduction to the elements of wildland fire behavior; fire management and suppression, and fuels management. History and policy development of forest and rangeland fire management. [Pre-requisite: FOR 130 or FOR 131. Weekly: 1 hr lect, 3 hrs lab.]

**FOR 250. Introduction to Forest Operations** (3). Overview of forest operations and environmental issues associated with today’s forest management practices. Use of mechanized equipment as a tool to meet various forest management objectives. [Weekly: 2 hrs lect, 3 hrs lab.]
FOR 302. Forest Ecosystems & People (3). Interaction between forest science principles of different forest ecosystems and social expectations and needs. Evolution of how people use the forests of California, from wilderness to city parks. California as the leading edge of forest users. Nonmajors only. [GE B]


FOR 311. Forest Mensuration & Growth (4). Sampling techniques in forest inventory, timber cruising, and site index determination. Develop volume tables and predict stand growth. Use growth models and computer applications. [Pre-requisite: FOR 130, FOR 210. Weekly: 3 hrs lect, 3 hrs lab.]

FOR 315. Forest Management (3). Managing forest-covered landscapes to meet a variety of objectives by applying economic, sociological, ecological, silvicultural, and operational principles. Nonmajors only. [Weekly: 2 hrs lect, 3 hrs lab.]

FOR 321. Fire Ecology (3). Fire as an ecosystem and physical process. Fire history, fire effects, fire regimes; interactions with abiotic and biotic ecosystem components; managing fire in California bioregions. [Pre-requisite: Course in Ecology or IA. Weekly: 2 hrs lect, 3 hrs lab.]


FOR 331. Silvics — Foundation of Silviculture (3). Woody plant interaction with environmental stresses. Factors influencing vigor and growth. Changes to stand structure caused by humans (thinning, harvesting, fertilization), nature (wind, soil, climate) or time. Selection using genetic principles for improved growth. Seedling production methods in stock types in relation to their effect on morphology, survival. [Pre-requisite: BOT 105, FOR 130, FOR 131, FOR 210 and SOIL 260. Weekly: 2 hrs lect, 3 hrs lab.]


FOR 353. Forest Road Location & Design (3). Road design procedures, standards, and techniques for forest management. Reconnaissance, route surveying, office and field design and location, geometrics, drainage systems, soil engineering, construction sequencing and techniques, erosion control, maintenance. [Pre-requisite: FOR 210, FOR 250, SOIL 260. Weekly: 2 hrs lect, 3 hrs lab.]

FOR 359. CA & US Forest and Wildland Policy (3). US and California government and policies are introduced with an emphasis on the interactions between these institutions and natural resource management. Regulations are analyzed from creation to implementation and interpretation. Meets requirement in “US Constitution and California State and Local Government” established by CA legislature.

FOR 365. Forest Economics and Finance (3). Capital budgeting; benefit/cost analysis; forest appraisal and taxation; welfare economics, management decision making; uncertainty and risk. [Rec: FOR 311 (C). Weekly: 2 hrs lect, 3 hrs lab.]

FOR 374. Wilderness Area Management (3). Paradox of “managing” wilderness; scientific, legislative, philosophical frameworks; managing human use of, and influences on, wilderness. [Weekly: 2 hrs lect; weekend field trips.]

FOR 423. Wildland Fuels Management (3). Managing wildland fuels in forests and rangelands. Advanced understanding of fuel dynamics, management strategies, and challenges facing fuels managers in fire-prone landscapes. Quantitative analysis of the effects of fuels treatments. [Pre-requisite: FOR 223 or IA. Weekly: 2 hrs lect, 3 hrs lab.]

FOR 424. Wildland Fire Internship (3). Gain practical experience in the field of wildland fire management outside the classroom through working with governmental agencies, non-profit organizations, or private companies. [Pre-requisite: FOR 321 and FOR 323, or IA. Evening presentations may substitute for class meetings.]

FOR 430. Forest Ecosystems (3). Environmental factors on tree, stand, and landscape dynamics. Investigation at physiological, population, community, ecosystem, and landscape scales. Analysis of ecological data, scientific writing, and presentation. Extensive field trips in region. [Pre-requisite: FOR 131 or course in ecology. Weekly: 2 hrs lect, 3 hrs lab.]

FOR 431. Forest Restoration (3). Forest restoration at multiple spatial scales from stand to landscape level. Goals for biological conservation, carbon sequestration, economic viability. Restoration techniques and case studies. Managing invasive plant species. [Pre-requisite: FOR 131 or FOR 315 and junior or senior standing.]

FOR 432. Silviculture (4). Theory and practice of controlling forest establishment, composition, and growth. Fundamentals of forest stand development and dynamics. Forest stewardship techniques to satisfy a range of possible objectives [biological, economic, and social]. [Pre-requisite: FOR 222, FOR 311 and FOR 331. Weekly: 3 hrs lect, 3 hrs lab.]

FOR 450. Harvesting Systems Design & Cost Analysis (3). Designing integrative harvesting and transportation systems. Computer applications in harvesting cost analysis, equipment purchase and replacement, break-even/sensitivity analysis, statistical analyses and operations research techniques applied to forest operations. [Pre-requisite: FOR 250. Weekly: 2 hrs lect, 3 hrs lab.]

FOR 471. Forest Administration and Ethics (3). Policy making; administrative behavior; legislative, regulatory, legal, and ethical considerations as applied to forest management. [Pre-requisite: FOR 250, FOR 311; junior standing or greater: Rec: FOR 432.]

FOR 475. Forest Management Decision Making (3). Social, political, economic, ecological, and silvicultural principles relating to contemporary forestry decision making processes. Predicting forest outcomes, tactical and strategic forest planning sustainability, risk assessment, monitoring, and adaptive management. [Pre-requisite: FOR 311 and FOR 365, or IA. Weekly: 2 hrs lect, 3 hrs lab.]

FOR 476. Advanced Forest Management (2). In discussion with land management professionals, students will develop projects on contemporary issues in forest disturbance-based management such as resilience amid a changing climate and management for ecosystem services. [Pre-requisite: AI. Co-requisite: FOR 432.]

FOR 479. Forestry Capstone (3). A forestry-related project, produced either by a team or by an individual, culminating in a public presentation. [Pre-requisite: must be in final term prior to graduation.]

FOR 500. Selected Topics in Forestry (.5-4). Topics as demand warrants. [Rep.]

FOR 482. Internship (1-3). Students reflect critically upon work experience and report their critical reflections in a written report under faculty guidance. [Pre-requisite: FOR 131 and FOR 210, or IA.]

FOR 490. Senior Thesis (1). Student-designed research project done by a single student with faculty approval before the project is begun. Public presentation of the results and a written paper in journal-ready format. [Pre-requisite: IA.]

FOR 499. Directed Study (1-4). Individual study at upper division level. Conference, directed reading, field research, or problems. [Pre-requisite: IA. Rep.]

GRADUATE


FOR 523. Advanced Wildland Fuels Management (3). Meets jointly with FOR 423. Students enrolled in FOR 523 are expected to carry out additional independent analysis of fuels treatment effects and deliver a lecture on an independent topic. [Pre-requisite: FOR 311 (C) and FOR 332, or IA.]

For more information, please visit the Humboldt State University Catalog.
FREN 100. Enlightenment and Post-Colonialism (3). Use critical thinking to explore culture and power in arguments by Enlightenment and Post-Colonial thinkers. Compare methods of reasoning in France and former colonies. Taught in English. [GE A]

FREN 105. French Level I (4). Introduction to French; develop basic language skills.

FREN 105L. French Laboratory Level I (1). Self-directed, subscription-based online language course.

FREN 106. French Level II (4). Cultural linguistic approach to the French world. Continue developing basic language skills while reading selected texts for cultural differences and similarities. [Rec: FREN 105. GE C]

FREN 106L. French Laboratory Level II (1). Self-directed, subscription-based online language course.


FREN 107L. French Laboratory Level III (1). Self-directed, subscription-based online language course.

FREN 207. French IV & Intro to Francophone Studies (4). Continued review of essentials of grammar. Read modern literary texts in French. [Rec: FREN 107 or equivalent, or IA. DCG+; GE C]

FREN 207L. French Laboratory Level IV (1). Self-directed, subscription-based online language course.

FREN 280. French Conversation & Retreat (2-3). Speak conversational French during the semester and plan, prepare and participate in a weekend language immersion retreat, complete with Francophone cuisine and French-language activities. [Pre-requisite: FREN 106 or IA. Rep twice.]


FREN 306 / GERM 306 / SPAN 306 / WS 306. Sex, Class & Culture: Gender & Ethnic Issues in International Short Stories (3). Gender and ethnic issues in French, German, and Spanish short stories by and about women. Readings, lectures, and discussions entirely in English. [Pre-requisite: junior standing or greater. Rep. DCG+; GE C]

FREN 310. Nouvelles en Francais: Variable Topics (2-4). Variable topics. Discussion in French of Francophone stories, cultural issues, and literary criticism. Topics vary by world region (e.g. le Vietnam, la Canada, la France, les Caraibes) or theme (e.g. Femmes et Famille, La Democratisation, Tradition et Modernite, Les Jeunes). Units vary according to topic and class hours (15 hours/unit). [Pre-requisite: FREN 207 (C)]

FREN 311. French V & Stories from the Francophone World (4). Intensive reexamination of French grammar and usage in Francophone texts. Techniques and terminology of literary and cultural criticism; Aural/ oral, reading and composition practice analyzing diverse literary and cultural issues. [Pre-requisite: FREN 207 or equivalent, or IA. DCG+; GE C]


FREN 314. Cultural History Topics in Early French Masterpieces (4). Introduces the major corpus of early French literature in the context of French cultural history, underscoring intersections of literature, ideology, and world views in cultural history. Special topics course. [Pre-requisite: FREN 311 (C). Rep.]

FREN 321. Intensive French Language in France (4). Intensive French language immersion studies onsite in France, in cooperation with Francophone language institute. Oral-based curriculum with in-class study and off-campus interaction and communication activities. [Prereq or coreq: FREN 106 with a grade of B- or above.]

FREN 322. Cultural Journal in France (3). Cultural studies in French and guided excursions on site in France provide material for process writing of daily cultural journal entries. Historical sites may include Carcassonne, Arles, Aigues-Mortes, Ste. Marie de-la-Mer, Montpellier. [Prereq or coreq: FREN 106 with a grade of B- or above.]

FREN 323. Culture and Civilization in France (2). Lectures in French and guided excursions and activities on site in France. May include museums, monuments, French cuisine, cinema, perfume production, and historical sites such as Carcassonne, Arles, Aigues-Mortes, Ste. Marie de-la-Mer, Montpellier. [Prereq or coreq: FREN 106 with a grade of B- or above.]

FREN 324. Introduction to Language OR Intensive French Language: Regional Studies (1-4). Study French or another language of a Francophone country, such as Wolof, Arabic, or Creole. [Rep 3 times.]

FREN 325. French Cultural Journal: Regional Studies (3). Daily process-writing IN FRENCH of knowledge gained on-site of the culture of a French-speaking country or region for a minimum of 4 weeks in an advisor-approved program. 45 hours of student-instructor contact hours. Region varies. [Rep 3 times.]

FREN 326. Culture & Civilization: Regional Studies (1-4). Study culture and civilization of a French-speaking country or region. [Rep 3 times.]

FREN 340. Topics in Francophone Culture (2-4). Variable topics. Presents an in-depth view of an important cultural issue in the Francophone world, such as “Musique: Fête, Critique, Révolte,” “La femme africaine,” and “French Caribbean Identity and Citizenship.” Full-semester major course taught in French. [Pre-requisite: FREN 107 (C). Rep 3 times.]

FREN 341. Current Event Topics in the Francophone World (2). Variable topics present the most relevant current events and issues in the Francophone world. Examples include “Paris Suburbs Burning” and “Women & War in Africa.” Taught in French or English. [Rep 3 times.]


FREN 420. French Peer Tutoring (1-3). Under professor’s supervision, students work a minimum of 30 hours assisting individual or group lower-level French students with linguistic, communicative, and cultural activities conducted in French.

FREN 480. Upper Division Seminar/Retreat (1-4). Special topics seminars: Semester-long courses in language, literature or culture or short-term seminars, including creative writing, language and culture immersion courses, film seminars, retreats and international speaker series. [Rep.]

FREN 482. Francophone Internship Abroad (1-6). Students plan an internship project with their major advisor; following “Francophone Intern-
ships Abroad” guidelines and an individual student contract. Opportunities favor those with advanced French-language skills. [Pre-requisite: FREN 106. Rep 3 times.]

FREN 492. Senior Honors Thesis or Project [3]. Independent research project, required for graduation with honors in French. Details determined in conference with faculty member after submission of written proposal the semester preceding graduation. [Pre-requisite: GPA of 3.70 in major, consent of supervising professor and DA.]

FREN 499. Directed Study [1-4]. Directed reading. Hours arranged. [Rep.]

### Geography

Geography majors must also take the one-unit depth experience courses when offered.

#### LOWER DIVISION

**GEOG 100. Critical Thinking: Technology and the Digital World [3].** Develop critical thinking skills and analytical reasoning through the investigation of privacy, security, new content, and location-aware services in mobile and web-based technologies. [GE A.]

**GEOG 105. Human Geography [3].** Analyze selected landscapes, regions, and group characteristics resultant from interaction of human societies with various environments. [DCG-n. GE D.]

**GEOG 106. Physical Geography [3].** Global patterns of climate, soils, vegetation. Landform geography. Climate regions defined on basis of physical environmental and agricultural land-use parameters. Majors must also take GEOG 106L. [GE B.]

**GEOG 106L Physical Geography Laboratory [1].** Introduction to physical earth processes through laboratory and field exercises. [Co-requisite: GEOG 106. Rep once. GE B.]

**GEOG 300. Global Awareness [3].** Analyze current world conflicts and problem areas: Spatial, social, economic, political, and environmental realities. [DCG-n. GE D.]

**GEOG 301/ESM 301. International Environmental Issues & Globalization [3].** Cross-disciplinary examination of economic development, world regions, population trends, resource exploitation, sustainability, impact of resource extraction in key world locations, and increasing global environmental connectivity, integration, and interdependence. [GE D.]

**GEOG 302. Global Ecology & Biogeography [3].** This course examines past and present geographic distributions of plants, animals, and other organisms. Biogeography is integrative and unites concepts and techniques from ecology, evolutionary biology, geology, and geography. [Pre-requisite: GEOG 106 and junior standing or greater. GE B.]

**GEOG 302M. Global Ecology & Biogeography Depth Experience [1].** This course will provide in-depth exploration of methodologies, data, and discussions of recent research on global ecology and biogeography. [Corequisite: GEOG 302.]

**GEOG 304 / ES 304. Migrations & Mosaics [3].** Role of international and internal migrations in shaping American population and society. Study of full range of ethnic mosaics. Majors must also take GEOG 304M when offered. [DCG-d. GE D.]

**GEOG 304M. Migrations & Mosaics Depth Experience [1].** Engage in hands-on field experiences to provide opportunities to demonstrate mastery of course materials and application of concepts to “real-world” situations. [Co-requisite: GEOG 304. Rep once.]

**GEOG 308. Social Justice and the Environment in Africa [3].** Study of contemporary Africa through the themes of social justice and the environment. Natural phenomena/ecology, natural resource industries, conservation projects/reserves, water, food, urban environment, climate change, technologies, traditional medicine. [GE B. Taught in Africa.]

**GEOG 310L Geographic Research Laboratory [1].** Introduction to geographic research techniques using software and internet resources. [Co-requisite: GEOG 311. Rep once.]

**GEOG 311. Geographic Research & Writing [3].** Overview of discipline and profession. Use of library resources, research tools. Emphasizes geographic methodologies, academic writing, presenting. Research paper and presentation on regional topic.

**GEOG 319. Emergence of the Modern Middle East [4].** This interdisciplinary course explores the Middle East through the disciplines of history and geography utilizing a wide variety of assignments and primary and secondary sources.

**GEOG 322. California [3].** Spatial interpretation of economic, political, social, and physical forces at work to forge California. Behavioral aspects of processes leading to change. Majors must also take GEOG 322M when offered. [Rep once.]

**GEOG 322M. California Depth Experience [1].** Embedded writing and literature workshop resulting in two book reports. Students also participate in structured field experience. [Co-requisite: GEOG 322. Rep once.]

**GEOG 332. Geography of the Mediterranean [3].** Its role in history and contemporary issues. Emphasis on underlying cultural and ecological unity despite differences of politics, economics, and religion.

**GEOG 335. Geography of the Middle East [3].** Peoples, cultures, landscapes, and political economy. Traditional Islamic civilization; impact of colonialism; contemporary issues.

**GEOG 352. Weather, Climate, and Natural Hazards [3].** Nature of world’s regional climates; tropospheric and oceanic circulation influence; orographic effects, large-scale weather disturbances. Majors must also take GEOG 352M when offered. [Pre-requisite: GEOG 106 or equivalent.]

**GEOG 352M. Weather, Climate, and Natural Hazards Depth Experience [1].** Data analysis related to major themes in climate, weather, and natural hazards, with focus on recent phenomena. [Co-requisite: GEOG 352. Rep once.]

**GEOG 353. Mountain Geography [3].** Mountain environments: origins; typical landforms; weather/climate influences; vegetation stratification; adaptations of animals/plants to altitude. Majors must also take GEOG 353M when offered.

**GEOG 353M. Mountain Geography Depth Experience [1].** Embedded data-driven research paper utilizing department format requirements, including a literature review, thesis, archival research, IMF databases, source analysis, graphics, and peer editing. [Co-requisite: GEOG 353. Rep once.]

**GEOG 357. Climate, Ecosystems & People [3].** This course will examine impacts of recent climate change on ecosystems and landscapes with primary case studies from North America and global syntheses. [Pre-requisite: GEOG 106. Rec: junior standing and introductory physical geography (e.g. GEOG 106) or related course are important prerequisites.]

**GEOG 357M. Climate, Ecosystems & People Depth Experience [1].** This one-unit course is designed to provide in-depth experience with the topics covered in the companion course GEOG 357: Climate, Ecosystems & People. [Co-requisite: GEOG 357.]


**GEOG 363. Political Geography [3].** World survey of spatial variation and interrelationships of political phenomena within a political region.

**GEOG 363M. Political Geography Depth Experience [1].** This seminar-style course explores topics from GEOG 363: Political Geography in greater depth through a combination of viewing feature films from various parts of the world, reflective writing, and seminar-style discussion. [Co-requisite: GEOG 363.]


**GEOG 376. Tibet and the Himalaya [3].** Explores the physical and cultural geography of Tibet and the Himalaya while addressing critical environmental, cultural, economic and geopolitical issues. Uses a regional approach to examine the diversity and complexity of these landscapes and to identify the important elements that define their sense of place in a rapidly changing world. [DCG-n.]

**GEOG 387 / ANTH 387 / COMM 387 / ECON 387 / HIST 387 / INTL 387 / PSCI 387. International Education Colloquium [1].** Earn credit by attending International Education Week events and participating in an online discussion forum. Mandatory pre-event meeting. [CR/NC.]

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256 Geography 2021-2022 Humboldt State University Catalog
Geology

LOWER DIVISION

GEOL 100. From Stars to Rocks: Being a Scientist in the 21st Century [3]. Introduction to the impact of astronomy, chemistry, physics, and geology on student life and society, practical aspects of the study of the disciplines and associated careers from different perspectives. [E.L.D.]

GEOL 103. The Water Planet [3]. An exploration of the processes that control water supply to ecosystems and to human civilizations. Topics include: hydrologic cycle, runoff generation, ocean circulation, floods, drought, groundwater, threats to water supply and quality, and the effects of global climate change on water resources. The class will focus on water issues facing California. [GE B.]

GEOL 106. Earthquake Country [3]. Understanding and preparing for earthquakes. Causes and effects of earth tremors; mechanics of earthquakes; how quakes are located and measured; earthquake risk and hazards; earthquake potential in California; earthquake prediction. Not intended for geology majors. [GE B.]


GEOL 110. Field Geology of the Western US (1-2). Investigation of the geologic processes that created selected locales in the western US. Lectures/discussions with extended field trip. The geology will be examined and described by members of the class. [Pre-requisite: GEOL 109, and undergraduate geology major (geosciences option). Course fee required.]

GEOL 210. Earth Systems History [3]. Evolution of Earth as an integrated system emphasizing the geological, climatological and biological forces that have shaped it, focusing on North America. Topics focused on geologic time scale and deep time, plate tectonic cycles, fossils and history of life, and the natural and anthropogenic climate history of the Earth. [Pre-requisite: GEOL 109. Rec: CHEM 109, MATH 109.]

UPPER DIVISION

GEOL 300. Geology of California [3]. Analyze major geological provinces, lithologic assemblages, economic resources. [Pre-requisite: GEOL 109. Cannot count for geology majors as upper division geology area of specialization. GE B.]

GEOL 300L. Geology of California Field Trip (1). Three weekends, or one 5-day field trip, through geologic provinces of northern California: the Coast Ranges, Klamath Mountains, Cascade Range, Modoc Plateau, northern Sierra Nevada, and Great Valley. [Pre-requisite: GEOL 300 (C). Cannot count for geology majors as upper division geology area of specialization. Field trip fee may be required.]


GEOL 305. Fossils, Life & Evolution [3]. Origin, evolution, and fate of life on earth; history of evolutionary thought and study of fossils; development of life environments [habitats] and biotic communities; recent theories of evolution and mass extinction from an introductory paleontologic perspective. [GE B. Cannot count for geology majors as upper division geology area of specialization. May require field trip.]


GEOL 308. Natural Disasters [3]. Mitigating geologic hazards through technology, behavioral and cultural adaptation, risk assessment and prediction, and communication of hazard information. Case studies of earthquakes, volcanoes, tsunamis, hurricanes, floods, landslides, and climate change. [Cannot count for geology majors as upper division specialization. Pre-requisite: GEOL 106 or GEOL 109 or GEOL 106, and upper division standing. GEOL 308L recommended concurrently. GE B.]

GEOL 308L. Natural Disasters Laboratory (1). Three-hour weekly laboratory introducing hazard and risk assessment tools including Geographic Information Systems, warning systems and emergency management, including a campus emergency exercise. Emphasis on countries in the Pacific Basin. May require field trip. Must be taken concurrently with GEOL 308. [Pre-requisite: upper division standing. GEOL 308 (C). GE B.]

GEOL 312. Earth Materials [4]. Description, identification, and classification of minerals and igneous, sedimentary, and metamorphic rocks in hand specimen. Occurrence and use of earth materials. [Pre-requisite: GEOL 109, and CHEM 109 (C) or CHEM 107. Weekly: 3 hrs lect, 3 hrs lab. Field trip fee may be required.]

GEOL 314. Petrology [4]. Composition, classification, and origin of igneous and metamorphic rocks, as well as sedimentary rocks, to a lesser extent. Analysis and interpretation through thin section, geochemistry, and modeling. [Pre-requisite: GEOL 312. Weekly: 2 hrs lect, 6 hrs lab; may require multi-day field trip. Field trip fee may be required.]

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3 hrs lect, 3 hrs lab: may require two weekend field trips.]

GEOL 334. Structural Geology [4]. Describe and analyze structural features of rocks. Interpret the strain significance of structures. Fundamentals of plate tectonics. Tectonic analysis of regional geologic structure. May require weekend field trips. Field trip fees may be required. [Pre-requisite: GEOL 332, MATH 102, PHYX 106 or PHYX 109. Weekly: 3 hrs lect, 3 hrs lab. May require weekend field trips. Field trip fees may be required.]

GEOL 335. Geologic Field Methods I [2]. In-class and weekend field projects, map literacy, compass orienteering and measurements, geologic mapping, field note-taking, field data interpretation, preparing stratigraphic columns and geologic cross-sections, technical report writing. [Pre-requisites: GEOL 332 and GEOL 335 and MATH 102 and (PHYX 106 or PHYX 109). Co-requisite: GEOL 435. Field trip fee may be required.]

GEOL 344. Paleontology [4]. Modes of preservation, skeletal anatomy, systematics and taxonomy, biostratigraphy, paleoecology, paleobiogeography, and evolutionary history of invertebrate groups of traditional importance to geologists. Rec: BIOL 105 or introductory invertebrate zoology course. [Weekly: 3 hrs lect, 3 hrs lab.]


GEOL 399. Supplemental Work in Geology [1-3]. Directed study intended for transfer student whose prior coursework is not equivalent to corresponding courses at HSU. [Department approval required. Rep 5 times.]

GEOL 435. Geologic Field Methods II [2]. In-class and weekend field projects include: map proficiency, advanced mapping of geologic structures and lithological features on topographic maps and aerial photographs, geologic field notes, synthesis of field data with GIS analysis, measuring stratigraphic sections and developing geologic cross-sections, technical report writing. [Pre-requisite: GEOL 306, GEOL 312, GEOL 335, GEOL 334(C). Multi-day field trips required. Field trip fees may be required.]

GEOL 455. Geology Colloquium [1]. Geology colloquium with a series of lectures given by invited geoscience professionals. [Rep.]

GEOL 457. Engineering Geology [3]. Apply geologic methods, principles, and information to engineering and related fields. Analyze earth materials, properties, and processes significant to modern engineering projects. [Pre-requisite: GEOL 334 or IA. Weekly: 2 hrs lect, 3 hrs lab/field trip for half semester; may require 4-day field trip.]


GEOL 465. Geosciences Senior Project [2]. Combined literature, field, and/or laboratory study, internship, or service learning experience directed toward a geoscience topic or problem. [Pre-requisite: IA.]

GEOL 474. Volcanology [3]. Fundamental principles of volcanic eruptions and their products as well as the hazard eruptions pose to human activity using methods and concepts from igneous petrology, sedimentology, stratigraphy, geologic mapping, and geophysics. Topics include origins and storage of magma, volcanic eruption triggers, styles of volcanic eruptions, volcano monitoring, and geologic properties of magma and volcanic flows. This course includes an extended multi-day field trip, required for all students. Students may also complete research projects throughout the semester. [Weekly: 3 hrs lect.; multi-day field trip. Field trip fees may be required. Pre-requisite: GEOL 235, GEOL 314, GEOL 332. Rec: GEOL 109, MATH 109.]

GEOL 475. Geology Field Camp [4]. Four weeks supervised field work in the western US. Principles/methods for geological mapping. May include preparing maps, cross-sections, stratigraphic columns, written and oral geologic reports. Living expenses and a portion of camp expenses borne by student. Typically available only during summer. [Pre-requisite: GEOL 314, GEOL 334, GEOL 435, and GPA of 2.0 or higher for all geology courses. GEOL 306 & GEOL 344 recommended.]

GEOL 482. Instrumental Methods in Geology [1-3]. Principles of X-ray and electron beam analysis of geologic specimens; experimental petrology techniques. Includes sample preparation, instrument operation and data analysis. Alternating with methods of air photo interpretation, GIS, and remote sensing in geology. [Pre-requisite: PHYX 109 or PHYX 106, and GEOL 312 or GEOL 306; or IA.]

GEOL 485. Seminar [1]. Discuss selected topics; correlated reading and reports. [Rep 3 times. Pre-requisite: senior standing or IA.]

GEOL 486. Geology Research Methods [1]. Orientation to geology research, including developing a research topic and proposal, designing and planning research, bibliographic research and communication in oral and written format. [Pre-requisite: GEOL 312 or GEOL 332.]

GEOL 490. Senior Thesis [1]. Prepare thesis proposal based on field or lab investigation of subject chosen by student and approved by department. Generally undertaken during senior year; may commence during junior year. [Pre-requisite: GPA of 2.5 or better for all GEOL courses; GEOL 486 with grade of B+ or better and DA.]

GEOL 492. Senior Thesis Project [2]. Prepare thesis based on field or lab investigation of subject chosen by student and approved by department. [Pre-requisite: GEOL 490 (C).]

GEOL 499. Independent Study [1-5]. Reading, conference, and/or research. [Rep 4 times. Pre-requisite: DA.]

GRADUATE


GEOL 531. Advanced Physical Geology [1-3]. Topics may include igneous and metamorphic petrology, advanced structural geology, paleoecology, experimental petrology, geophysics, regional geology investigations, special topics. Field trip fees may be assessed. [Pre-requisite: GEOL 314 and GEOL 334, or IA. With consent, rep up to 4 times.]

GEOL 531L. Advanced Physical Geology Lab [5-1]. When offered, taken concurrently with 531. May involve weekend or week-long field trip(s). [Field trip fees may be required.]

GEOL 550. Fluvial Processes [3]. Quantitative and qualitative description of river processes. Mechanisms of flow and sediment transport in open channels; adjustments of channel form and pattern; channel incision and eco-hydrological controls; fluvial sediment budgets; techniques for field measurement. [Rec: GEOL 306, MATH 110, (PHYX 107 or PHYX 210); or IA. Weekly: 2 hrs lect, one 3hr lab; may require one-day weekend field trip(s). Field trip fee may be required.]

GEOL 551. Hillslope Processes [3]. Quantitative and qualitative description of the mechanics of erosion and deposition on hillslopes. Develop and apply sediment budgets. Hillslope eco-hydrology, weathering, mass movement, slope stability, sheet and rill erosion, slope development models, and techniques for field measurement of slope processes. [Rec: GEOL 306, MATH 110, (PHYX 107 or PHYX 210); or IA. Weekly: 2 hrs lect, one 3hr lab; may require one-day weekend field trip(s).]

GEOL 553. Quaternary Stratigraphy [4]. Concepts, theory, methods of Quaternary geology; soil stratigraphy, climate changes; glacial and periglacial processes and patterns. [Pre-requisite: GEOL 306. Weekly: 3 hrs lect, 3 hrs lab/field trip; may require extended weekend field trip(s). Field trip fees may be required.]

GEOL 554. Advanced Geology Field Methods [2]. Weeklong field excursion to study and interpret quaternary stratigraphic, volcanic, and tectonic problems using appropriate field techniques. Field trip fees may be assessed. [Rep twice.]

GEOL 555. Neotectonics [3]. Critical review of Quaternary crustal deformation. Mechanics, rates and distribution of faulting, folding, uplift, subsidence. Methods of measuring/analyzing Quaternary and active tectonic processes. [Pre-requisite: GEOL 334 and GEOL 306. Weekly: 2 hrs lect, 3 hrs lab or field trip; may require extended weekend field trip(s).]
GEOL 556. Hydrogeology (4). Geologic factors controlling the movement and retention of water through the subsurface. Physics of saturated and unsaturated zone hydrology. Geologic and environmental factors affecting groundwater quality and contaminant transport. Modeling of moisture change in the root zone, and vegetative water uptake. [Weekly 3 hrs lect, 3 hrs lab; Field trip fees may be required.]

GEOL 558. Geomorphology of Soils (3). Physical and chemical weathering mechanisms; climosequences, toposequences, chronosequences; relation of soils to erosional and depositional processes; interpretation of paleosols; use of soils in relative dating of geologic deposits. [Pre-requisite: GEOL 305 and CHEM 110, or IA. May require weekend field trip(s). Field trip fees may be required.]

GEOL 561. Applied Geophysics (3). Apply geophysical methods to mineral exploration, geological engineering, crustal studies. Seismic reflection, refraction, electrical resistivity, magnetic and gravity surveying. [Rec: MATH 110, PHYS 107 or PHYS 210, upper division standing in a technical or scientific field. Weekly: 2 hrs lect, 3 hrs lab.]

GEOL 690. Thesis (1-6). Conduct research and prepare written thesis as required for grad degree. [Pre-requisite: IA. Rep up to 6 units.]


CREDENTIAL/LICENSURE

GEOL 700. In-Service Professional Development in Geology (1-3). Directed studies for geology professionals desiring advanced or specialized instruction, especially that leading to credentialing or teacher certification. [Pre-requisite: IA. May require 1-day weekend field trip(s). Rep 5 times.]

Geospatial Analysis

LOWER DIVISION

GSP 101. Geospatial Concepts (2). Overview: scale, coordinates, geodesy, direction, projections, surveying, global positioning systems (GPS), remote sensing, geographic information systems (GIS), cartography, historical context illustrating how maps depict spatial relationships, chart power, convey authority. [Co-requisite: GSP 101L. Rec: basic computer literacy. GE D.]

GSP 101L. Geospatial Concepts Lab (1). Traditional and computer lab activities to develop understanding of scale, coordinate systems, geodesy, direction, projections, surveying, global positioning systems (GPS), remote sensing, geographic information systems (GIS), cartography. [Rec: basic computer literacy. GE D.]

GSP 216. Introduction to Remote Sensing (3). Introductory course in remote sensing focusing on broad topics pertaining to nature of radiation, aerial photography and interpretation, multispectral scanners, and image data and processing. [Pre-requisite: GSP 101 and GSP 101L. Weekly: 2 hrs lect, 3 hrs lab.]

GSP 270. Geographic Information Science (GIS) (3). Introductory course in Geographic Information Science and spatial analysis involving collection, manipulation, display, and analysis of geographically referenced data. Raster and Vector data, overlays, buffer, proximity analysis and SQL queries. [Pre-requisite: GSP 101 and GSP 101L. Weekly: 2 hrs lect, 3 hrs lab.]

GSP 280. Special Topics in GSP (3). Topics vary. [Rec: GSP 101 and GSP 101L. Rep with different topics.]

UPPER DIVISION

GSP 316. Cartography (4). Cartographic visualization and map design principles through GIS and illustration programs, the selection of appropriate map projections, data classification, color, visual variables, charts, graphs, and diagrams. [Pre-requisite: GSP 101(G) and GSP 101L(C). Weekly: 3 hrs lect, 3 hrs lab.]


GSP 326. Intermediate Remote Sensing (3). Intermediate level course focusing on digital image processing involving image enhancements, image rectifications, classification, and accuracy assessments. Additional topics include image processing techniques involving thermal, hyperspectral, Radar, and LiDAR data. [Pre-requisite: GSP 216 and junior standing or greater. Rec: MATH 105. Weekly: 2 hrs lect, 3 hrs lab.]

GSP 330. Mobile Mapping (3). Concepts and techniques of data collection using mapping-grade GPS/GIS units. Topics include understanding data collection protocols, data processing, GIS integration, error sources, differential correction, and other advanced capabilities. [Pre-requisite: GSP 101, GSP 101L, and GSP 216 (C) or GSP 270 (C). Weekly: 2 hrs lect, 3 hrs lab.]

GSP 370. Intermediate Geographic Information Science (GIS) (3). Data accuracy and quality, standard and advanced geospatial data models, data integration and analysis, constraint analysis, location-allocation analysis, metadata standards and documentation, geospatial ethics, industry applications of geospatial analysis. [Pre-requisite: GSP 270 or GSP 280 or GSP 510; sophomore standing or greater. Weekly: 2 hrs lect, 3 hrs lab.]

GSP 416. Advanced Cartography Design Seminar (4). Build on fundamentals through cartographic visualization: the map as a tool for both exploring and representing geographic information. Greater depth in cartographic design theory. Discuss weekly readings; complete major map project. [Pre-requisite: GSP 316. Rep.]


GSP 428. Cartography Practicum (1-4). Practical mapping experience as a cartographic intern with the Institute for Cartographic Design. Supervised individual and group work experience in geospatial sciences. This course is intended for those pursuing advanced cartographic training. Permission of the instructor needed for registration. [Pre-requisite: GSP 270, GSP 316, and IA.]

GSP 436. Advanced Remote Sensing (3). Advanced course in remote sensing. Topics include advanced image enhancements involving project design, image fusion, higher levels of image classification techniques including object-oriented classifications, machine learning techniques, geostatistics, etc. [Pre-requisite: GSP 326; senior standing or greater. Rec: MATH 105. Weekly: 2 hrs lect, 3 hrs lab.]


GSP 480. Selected Topics in Geospatial Science (1-3). Selected topics in geospatial science; GIS, remote sensing, cartography, mobile mapping, web-based applications, databases, programming. May require additional prerequisites. [Pre-requisite: GSP 101 and GSP 101L; sophomore standing or greater. Rep with different topics.]

GSP 480L. Selected Topics in Geospatial Lab (1-2). [Pre-requisite: GSP 101 and GSP 101L; sophomore standing or greater. Rep.]

GSP 499. Directed Study (1-3). Directed study in geospatial science. Independent undergraduate study or research project supervised by geospatial science faculty. [Pre-requisite: junior standing or greater; IA. Rec: GSP 101, GSP 101L and one additional GSP course. Rep.]

GRADUATE

GSP 510. Research Methods in Geospatial Science (4). Applications of GIS, remote sensing, cartography, mobile mapping, web-based applications, and geospatial databases to research. Designed to enable new graduate students to incorporate geospatial data and methods into their research. [Pre-requisite: graduate standing. Weekly: 3 hours lecture and 3 hours lab.]

GSP 570. Advanced Geospatial Analysis & Modeling (3). Project-based application of advanced geospatial analysis and modeling to natural resource research applications. Includes research project management: setting and meet-
ing goals, managing schedules, team leadership. Also includes GSP 470 topics. [Pre-requisite: GSP 370; senior or graduate standing. Weekly; 2 hrs lect, 3 hrs lab.]

GSP 580. Selected Graduate Topics in Geospatial Science [1-3]. Selected topics in Geospatial Science offered at the graduate level; GIS, remote sensing, cartography, mobile mapping, web-based applications, databases, programming. [Pre-requisite: (GSP 101 and GSP 101L) and (GSP 216 or GSP 270 or GSP 316); junior standing or greater. May require additional prerequisites. May be repeated with different topics.]

GSP 580L. Selected Graduate Topics in Geospatial Science Lab [1-2]. Lab for selected topics in Geospatial Science offered at the graduate level; GIS, remote sensing, cartography, mobile mapping, web-based applications, databases, programming. [Pre-requisite: (GSP 101 and GSP 101L) and (GSP 216 or GSP 270 or GSP 316). Junior standing or greater. May require additional prerequisites. May be repeated with different topics.]

GERM 280. Lower Division Retreat/Seminar [1-3]. Language retreat or seminar with guest lecturer; typically offered on weekends; culminates in project or report. Dr. lab for which times of required attendance are self-determined. [Pre-requisite: completed German level II or IA. Rep.]

UPPER DIVISION

GERM 305. Marx, Nietzsche, Freud & German Literature [3]. Literary texts by major authors. Works reflect a search for both personal freedom and social responsibility by incorporating ideas of Marx, Nietzsche, Freud. Taught in English. [GE C.]


GERM 311. German Level V [4]. Increases student proficiency in language and culture through active use of German for purposeful communication. In-depth study of language and culture and solid progress in language. Incorporates text, video, audio, and computer. [Pre-requisite: GERM 207 or equivalent, or IA. Rep once.]

GERM 312. German Level VI [4]. Uses proven strategies to build oral and written skills and enables meaningful communication. In-depth study of language and culture and solid progress in language. Incorporates text, video, audio, and computer. [Pre-requisite: GERM 311 or equivalent, or IA. Rep once.]

GERM 480. Undergraduate Seminar [1-4]. Film seminar: weekend language retreat, or study of a literary figure, period, or cultural aspect of Germany, Austria, or Switzerland. Also the Children's Language Academy. [Pre-requisite: IA. Rep.]

GERM 495. Directed Study [1-3]. Directed reading. [Hours TBA. Rep.]

Health Education

LOWER DIVISION

HED 100. Sound Mind Sound Body [3]. Optimum health. Sound mind in a sound body [interrelationship], exercise physiology, human sexuality and childbirth, nutrition, stress, death/dying, psychophysical and behavior; holistic medicine, somatology [E-L].

HED 120. Respecting to Emergencies – CPRFPR [1]. Course includes American Red Cross First Aid, Adult CPR, Adult AED, Child CPR, Child AED, and infant CPR. Leads to first-time certification or re-certification of these courses. [Rep 4 times.]

HED 231. Basic Human Nutrition [3]. Nutrient requirements for healthy living. Analyze food sources, function of nutrients, chemical processing, and food absorption. [Rec: chemistry.]

HED 342. Nutrition for Athletic Performance [3]. How food consumption and nutrition affect energy production and physical performance in sports activities. Analyze diet modifications, such as carbohydrate loading and use of ergogenic aids, to improve performance.

HED 344. Weight Control [3]. Theories and practices related to maintaining safe and healthy weight levels. Diet analysis; body composition and effects of exercise; behavior modification.

HED 345. Health Messaging and Mass Media [3]. Study of theories of mass communication and health evidence dissemination with practical application in development of culturally appropriate messaging on various communication platforms for the promotion of health programs and behaviors.

HED 388. Community Based Health Promotion [3]. In-depth study of engaging the community in the process of health promotion. An emphasis on building relationships with community stakeholders, conducting community needs assessment, developing and assessing community based health promotion programs. [Pre-requisite: HED 390.]

HED 390. Design & Implement HP Program [3]. Planning, implementing and evaluating health promotion programs for different populations and different settings.


HED 400. A Sound Mind in a Sound Body: Human Integration [3]. Optimum health. Sound mind in a sound body [interrelationship], exercise physiology, human sexuality and childbirth, nutrition, stress, death/dying, psychophysical and behavior; holistic medicine, somatology. [Pre-requisite: minimum junior standing.]


HED 451. Nutrition and Chronic Disease [3]. Relationships between nutrition and chronic disease. The role of nutrients, foods, and diet patterns in the prevention or treatment of several chronic diseases including, obesity, diabetes, and hypertension. [Pre-requisite: NRS 348. NRSG
HIST 300. The Era of World War I (3). Social, economic, diplomatic, political, and military background before and developments during war. Emphasis on origins and outbreak of war, total war, trench warfare, Bolshevik Revolution, peace settlement, and war’s aftermath. [GE D.]

HIST 300R. The Era of World War I, Research Seminar (1). Embedded writing workshop. Students write a 10-12 page research paper. Includes: primary and secondary literature review, library research methods, analysis, organization, and peer editing. [Co-requisite: HIST 300.]

HIST 301. The Era of World War II (3). Social, economic, diplomatic, political, and military background before and developments during war. Emphasis on totalitarianism, appeasement, propaganda, conduct of war, civilian experiences of war, post-war settlement; beginning of Cold War. [GE D.]

HIST 301R. The Era of World War II, Research Seminar (1). Embedded writing workshop. Students write a 10-12 page research paper. Includes: primary and secondary literature review, library research methods, analysis, organization, and peer editing. [Co-requisite: HIST 301.]

HIST 306/RS 306. Gods & Kings in the Ancient Near East (4). History of the ancient cultures (Mesopotamian, Egyptian, Hebrew, Persian, Mycenaean) that provided the foundations for the emergence of classical western civilization including writing, kings, myths, states, laws, and monotheism. [UD-D.]

HIST 311. World History to 1750 (3). Survey of the major events, trends, structures, and cross-cultural interactions in World History prior to 1750. Starts with rise of "civilization" in Mesopotamia and concludes with the European Enlightenment. For those planning to teach elementary school or social science single subjects.

HIST 312. World History from 1750(3). Survey of the major events, trends, structures, and cross-cultural interactions in World History from 1750 to the end of the Cold War and rise of a multi-polar world. For those planning to teach elementary school or social science single subjects.


HIST 315. History & Civilization of Rome (4). From legendary founding to Christianity’s triumph. Imperialism, the Republic, the Principate, reasons for Rome’s decline.

HIST 319. Emergence of the Modern Middle East (4). This interdisciplinary course explores the Middle East through the disciplines of history and geography using a wide variety of assignments and primary and secondary sources. [Sophomore standing or greater: Req: HIST 210.]

HIST 322. The Age of Knights & Monks (4). Europe from 900 AD to beginnings of Renaissance. Life under feudal system, medieval warfare, church/state relations, crusades, major heresies, development of European nations, Gothic architecture, medieval synthesis, Black Death.

HIST 323. Gender and Sexuality in East Asian History (4). This seminar explores gender roles and relations and sexual cultures in the context of East Asian history. Readings include translated historical documents and works by modern scholars. [Req: HIST 210. DCG-n.]

HIST 324/PSCI 324. The Arab-Israeli Conflict: History, Narratives & Nationalism (4). The Arab-Israeli Conflict: History, Narratives and Nationalism (4). Traces the history and politics of the Arab-Israeli conflict from its earliest days. Explains events and narratives that shaped this longstanding conflict, while also analyzing U.S. involvement in it. [Pre-requisite: sophomore standing or greater: Req: HIST 210.]

HIST 326. History of Mexico (4). Surveys Mexican history from Pre-Columbian indigenous societies to present-day EZLN uprising in Chiapas. Focus placed upon political, economic, environmental history, and foreign relations with the United States. [Req.]

HIST 327. History of Brazil (4). Political, economic, and social/cultural history from the colonial era to the present day. Special emphasis on the legacy of African slavery and on Brazil’s multi-cultural society. [DCG-n.]

HIST 328. Women & Gender in Latin America (4). Examines history of women and gender relations in Latin America and Caribbean. Considers historical constructs of masculinity and femininity in context of colonialism, nation building, revolution, and globalization. [DCG-n.]

HIST 329. Imperial China (4). Through lectures, readings, discussions, and research assignments, Imperial China provides students with an intensive introduction to Chinese history from the Bronze Age through the Ming Dynasty. [Pre-requisite: HIST 210 (C). History majors and Chinese studies majors only. Offered every other year.]

HIST 332. Modern Chinese History (4). Political/social events from Opium Wars to the present.

HIST 333. Modern Japanese History (4). Political, social, and economic events from...
Tokugawa shogunate to present. Westernizing/modernizing processes.


HIST 343. French Revolution & Napoleon (4). Traces origins, outbreak, progression, and legacy of French Revolution and Napoleon. Special emphasis on socio-economic, intellectual, cultural, and political developments and on historiography. [Pre-requisite: HIST 210 (C). Offered occasionally.]

HIST 345. Imperialism (4). Study of European imperialism with emphasis on 19th/20th centuries. Exploration of details of imperialism as well as role of race, gender, mission, language, and art in shaping colonial interactions. [DCG-n.]

HIST 348. Modern Germany (4). History/ Historiography, 1517-present. Emphasis on ‘specific path’ of German history, Lutheran Reformation, Thirty Years War, rise of Prussia, unification under Bismarck, world wars, and Germany’s role in Cold War and EU.


HIST 350. History of the Soviet Union (4). Covers all aspects of the Soviet experiment from the revolution of 1917, through the Stalin years, and through the long decline and sudden collapse of the Soviet Union.

HIST 353. Modern Britain (4). Britain from the Act of Union: Parliament to Devolution; the Industrial Revolution and its cost; the rise and loss of Empire; and the establishment and fate of the welfare state.


HIST 368. Age of Jefferson & Jackson (4). Battles over constitutional interpretations from 1787 to 1830s. Biographical emphasis. Development of political parties, social and economic reforms, states’ rights.

HIST 371. Civil War & Reconstruction (4). Dissolution and reunification of American Union, 1861-77. Rebellion and secession; military campaigns; wartime civil rights; constitutional, political, social crises.

HIST 372. Rise of Modern America, 1877-1929 (4). Industrial and urban growth; rise of big business and big government; US as a world power. [DCG-d.]

HIST 374. Contemporary America, 1929 to the Present (4). Economic, social, cultural and political change with an emphasis on issues of gender and race. The relationship between foreign and domestic policy and changes in technology are also covered. [DCG-d.]

HIST 375A. US Foreign Relations, 1789-1943 (4). Survey main themes from American Revolution through 19th century; then 1890s until World War II covered in greater depth.

HIST 375B. US Foreign Relations, 1943-Present (4). From World War II to present day, emphasizing themes such as domestic politics, US visions of its role in the world, the media, and changing world conditions. [Rep. once.]

HIST 377. Vietnam Wars (4). Vietnamese history, French colonialism, American involvement and the military, social, cultural and political results to understand the multi-layered effects of the Vietnam Wars in the U.S., Southeast Asia, and the world. [DCG-n.]


HIST 391. Special Topics & Interdisciplinary Studies in History (1-4). Topics announced in class schedule. Examples: cold war novel as history, Punic wars, 20th century US science and technology, Arab-Israeli conflict, South Africa. [Rep.]

HIST 392. Special Topics in European History (1-4). Special topics in European history that may include major events, themes, or historical periods. Topic varies. One of four units is individualized instruction on assigned topics. [Rep.]

HIST 393. Special Topics in Non-Western History (1-4). Special topics in world regional history will vary. [Rep.]

HIST 394. History Conference (1). Opportunity for students to be historians by presenting an original research paper in a conference setting. Students must attend preliminary meetings and all parts of the conference for credit. [Rep. once.]

HIST 395. Classroom Observation for History Day (1). Students will assist elementary/secondary students in History Day projects by helping them select a topic, locate historical documents, and organize research into a final project and will mentor historical skills and methodologies in local classrooms. [CR/NC. Rep. once.]

HIST 396. International Latino Film Seminar (1). This seminar presents and discusses three films from the Hispanic world, in Spanish with English subtitles. [CR/NC. Rep. 3 times.]

HIST 397. Weekend Workshops: Variable Topics (1). Intensive weekend workshop to delve into greater depth on a historical topic. [Rep. once.]

HIST 398. History Career Workshop (1). Help students think about the ways they learn and work as history majors and how to translate their knowledge into skills valuable in the working world. [CR/NC. Rep. once.]

HIST 420. Interpreting History for Teachers (4). Capstone course in history for the Social Sciences Education major that enables students to connect social science content to state education standards and critically access their own progress and skills acquisitions in the major.

HIST 422. Internship in History (1-3). Field observation and placement in a public or private nonprofit agency. [Pre-requisite: IA. CR/NC. Rep.]

HIST 490. Senior Seminar (4). Directed, individual investigation. Prepare senior research paper. Apply techniques of historical research and criticism. [Pre-requisite: senior standing.]

HIST 491. Mentoring (1-3). Advanced majors gain experience as teaching assistants working with a diverse body of students. [Pre-requisite: IA. Rep.]

HIST 499. Directed Study (1-4). Assigned reading or research in specific historical period or topic. [Open to advanced students only upon instructor and Department approval. Rep.]

International Studies

LOWER DIVISION

INTL 100. Thinking Critically About Globalization (3). Development of critical thinking through an understanding of the principles of reasoning and tools of evaluation and argumentation with application to questions of globalization concerning economics, politics, and culture. [GE A.]

INTL 100S. Thinking Critically About Globalization (3). Development of critical thinking through an understanding of the principles of reasoning and tools of evaluation and argumentation with application to questions of globalization concerning economics, politics, and culture with Service Learning. [GE A.]

INTL 210. Introduction to International Studies (4). Introduction to the multi-disciplinary field of International Studies, with preparation for further coursework in the major. Examines development of modern world through diverse analytical lenses. [Pre-requisite: ENGL 103 or ENGL 104 or ENGL 104S.]

INTL 220. Introduction to Cultural Studies (3). Topics studied include culture and imperialism/cultural imperialism; orientalism and the politics of representation; post-colonialism; cultural appropriation, hybridity, and syncretism; diasporic, transnational, cosopolitan, and border cultures; “global” pop culture.

INTL 280. Topics in International Studies (1-4). Selected intermediate topics in International Studies. Topics vary by offering. [Rep.]
JMC 105. Introduction to Mass Communication (3). The history, economics, ethics, and conflicts in US mass media practices. How mass media laws and industries affect and have affected our culture, economy, and political community over time. Using basic media criticism concepts, we will evaluate the honesty, independence, and productivity of various mass media and the effects they have on individuals and society. [GE C.]

JMC 120. Beginning Reporting (3). Learn and practice the basic skills of reporting, interviewing, and journalistic storytelling for a wide variety of audiences. Improve your writing and oral communication skills and become a more organized thinker about content. Prerequisite for several journalism courses.

JMC 125. Introduction to Journalism Tools (3). Introduction to journalistic storytelling through audio, still photography, video, and website design.

JMC 134. Photojournalism & Photoshop (3).

JMC 154. Radio Production (3). Learn the techniques and skills needed to produce live on-air and edited radio programs for the student-run radio station KRFH, 105.1 FM. [Pre-requisite: JMC 120 or IA.]

JMC 155. KRFH Workshop (1). Be a DJ, talk show host or live music producer on the student-run radio station KRFH, 105.1 FM. [Pre-requisite: JMC 154 (C). Rep. Consult journal major advisor.]

JMC 156. Video Production (3). Learn to produce videos with a clear message that will capture the attention of the masses. Basic video production skills in field camera use and Adobe Premiere Pro editing. Work on a variety of projects including public service announcements, promotional videos and news stories with a message of social justice and environmental responsibility.

JMC 160. El Leñador Newspaper (2). This course will focus on the fundamentals of reporting, storytelling, and newspaper production with emphasis on news covering Latinx and diverse communities. Students will work collaboratively with classmates to produce the monthly English/Spanish newspaper and create multimedia content for the website ElLeñadorNews.com. [Pre-requisite: JMC 120, CR/NC. Rep once. Consult journalism major advisor.]

JMC 280. Selected Topics in Journalism and Mass Communication (1). Selected topics in journalism and mass communication offered at the lower division level.

JMC 302. Mass Media & Popular Arts (3). Popular arts presented through mass media. Analyze personal responses; cultivate understanding of how mass media process works of popular art; develop powers of discrimination. [GE C.]

JMC 305. International Mass Communication (3). Comparative press systems and theories; international and cross-cultural communications; the role of international media as the intersection between social, political and economic institutions. [DCGn. GE D.]

JMC 306. History of Mass Communication (3). Evolution of mass media from the development of the written language to the commercialization of the Internet. Media as a catalyst for change in culture and society. How governments and societies suppress change through media repression. [GE D.]


JMC 318. Media Research (3). Logic and tools used in communication studies. Aspects of survey and experimental research. Practical uses by mass media professionals. Become a more critical consumer of empirical research in the mass media and society.

JMC 320. Advanced Reporting (3). Advanced interviewing techniques. Locate, examine, and incorporate documents as part of a news reporting process. [Pre-requisite: JMC 120 or IA.]

JMC 322. Editing (3). Typography, newspaper layout and design, editing, news evaluation, reference materials, headline writing, making news meaningful. Newspaper law, copy fitting, makeup, editorial problems. [Pre-requisite: JMC 120 and JMC 125.]

JMC 323. Public Relations (3). The history, theory, and practice of public relations in a broad range of organizations and institutions, its impact on publics, and its functions in society. The course includes legal and ethical issues, case problems, publicity techniques, and practice in the process of public relations program planning and management.

JMC 324. Advanced News Writing (3). Nonfiction feature writing. Long form and alternative storytelling formats. Read and analyze feature stories from magazines, newspapers, and online publications. [Pre-requisite: JMC 120 and JMC 125.]

JMC 325. Osprey Magazine Production (2). Work as a writer, editor, layout designer, photographer or in another role and collaborate with other student staff members to create and publish the Osprey general feature magazine. [Pre-requisite: JMC 120 or IA. CR/NC. Rep 4 times. Consult journalism major advisor.]

JMC 328. Investigative Reporting (3). An advanced reporting and writing class. You will learn to apply in-depth reporting techniques and synthesize large amounts of information into a compelling story about an important community issue. [Pre-requisite: JMC 120. Rec: JMC 320.]

JMC 327. Lumberjack News Workshop (2). Work as a reporter, photographer, designer, editor or in another role to produce content for The Lumberjack. You can have your voice heard and practice the skills necessary to ensure a free press. [Pre-requisite: JMC 120 and JMC 125. CR/NC. Rep 4 times. Consult journalism major advisor.]

JMC 328. Media Law (3). Laws which guarantee and protect privileges and define duties and responsibilities of mass media. Constitutional law, privacy, libel, contempt of court, governmental regulations pertinent to mass media.

JMC 332. Media Ethics (3). An examination of ethical issues in news, advertising, public relations, and the entertainment industry.
KINS 120. Developing Lifes Skills for Student-Athletes (3). Develop as a whole person: athletically, academically, personally. Goal-setting; wellness and nutrition; communication; future career endeavors.


KINS 244. Medical Terminology (1). Understanding medical terminology is essential for anyone interested in working in healthcare. In this class, students will develop a medical vocabulary grounded in basic medical terminology through the study of root words, prefixes, and suffixes. Students will learn correct pronunciations, spellings, and use of medical terms. Anatomy, physiology, and pathology of diseases will be discussed.

KINS 276. Techniques in Athletic Training (3). Care and prevention of athletic injuries: taping, emergency care, rehabilitation, injury prevention, use of therapeutic equipment. [Pre-requisite: Human Anatomy or Human Physiology course.]

KINS 288. Foundations of Science in Kinesiology (3). This course studies the major systems of the body through a biochemical, molecular biology lens. Students will engage introductory concepts of metabolism, biochemistry, public health, medical science, health sciences, pathology, and human performance. This course is designed for kinesiology and nursing students with a strong interest in the health or medical field of study and is a component course of Kinesiology core.

KINS 311. Concepts of Teaching Aquatics (2). Analysis of teaching concepts and skills in aquatics; instructional approaches, planning, curriculum, and evaluation of concepts and skills for water safety instruction.

KINS 313. Concepts of Teaching Dance (2). Analysis of teaching concepts and skills in dance forms; instructional approaches, planning, curriculum, and evaluation of rhythm and movement concepts and skills (e.g., multicultural, social, classical, and contemporary dance).

KINS 315. Concepts of Teaching Dynamic Patterns of Movement (2). Analysis of teaching concepts and skills in dynamic patterns of movement; instructional approaches, planning, curriculum, and evaluation of combatives/self-defenses and gymnastics concepts and skills.

KINS 317. Concepts of Teaching Fitness (2). Analysis of basic principles, theories, and practice for development and maintenance of health and physical performance; instructional approaches, planning, curriculum, and evaluation of health-related fitness concepts.


KINS 321. Concepts of Teaching Recreational Activities (2). Analysis of teaching concepts and skills in recreational games and outdoor education; instructional approaches, planning, curriculum, and evaluation of various outdoor settings, icebreakers, mixers, initiatives, and educationally-based games.

KINS 323. Concepts of Teaching Team Activities (2). Analysis of teaching concepts and skills in team activities, e.g., basketball, flickerball, football, lacrosse, soccer, softball, volleyball, and ultimate frisbee. Instructional approaches, planning, curriculum, and assessment strategies.

KINS 325. Health-Related Exercise (2). Principles, theory, and practice of health-related exercise through fitness programs, recreational activities, and outdoor education. Analysis of teaching and learning; instructional and curricular approaches; standards-based instruction; planning and assessment strategies. [Rep once.]

KINS 327. Games Concepts I (3). Teaching Games for Understanding (TGfU) as applied to net/wall and target-based activities. Analysis of teaching and learning; instructional and curricular approaches; standards-based instruction; planning and assessment strategies. [Rep once.]

KINS 329. Games Concepts II (3). Teaching Games for Understanding (TGfU) as applied to invasion and field/run scoring activities. Analysis of teaching and learning; instructional and curricular approaches; standards-based instruction; planning and assessment strategies. [Rep once.]


KINS 378. Sport in Society (3). Physical activity as part of culture: how it affects values, attitudes, technology; how it works in sociocultural systems.
KINS 379. Exercise Physiology [4]. How the body responds, adjusts, and adapts to exercise. Muscular, circulatory, respiratory, energy, and endocrine systems. [Pre-requisite: ZOOL 113 or ZOOL 310. Week: 3 hrs lect, 2 hrs act.]


KINS 385. Adapted Physical Activity [3]. Provides students with the opportunity to understand the History of Special Education Law and how these laws protect the rights of individuals with disabilities within the physical education setting. Students will understand philosophies, such as inclusion, and how cultural differences can be addressed within the classroom. Students will understand how students qualify for adapted physical education and how adapted sports can be included in the k-12 curriculum to provide each student the opportunity to become physically literate.


KINS 456B. Fitness Assessment & Exercise Programming [4]. Implementation of fitness assessments to evaluate muscular fitness and flexibility, and to develop exercise prescriptions based on assessment data for low-to moderate-risk individuals and those with controlled disease. [Weekly: 3 hrs lect, 2 hrs activ. Pre-requisite: HED 120, KINS 379.]

KINS 460. Human Performance Lab Techniques [1]. Introduction to the basic testing procedures used in the assessment of human performance, health, and wellness. Application and practice of techniques in administering tests and analysis of data. [Kinesiology majors with junior standing or greater: Rep.]

KINS 474. Psychology of Sport & Exercise [3]. Theoretical and applied aspects of the psychology of exercise and sport. Review of personality, motivational processes, interpersonal and group processes, developmental patterns, and intervention techniques in cultural contexts. [Pre-requisite: junior standing or greater: DCG-d.]


KINS 480/480L. Special Topics [1-4]. Topics of current interest. Lect./lab as appropriate. [Rep.]

KINS 482. Internship in Kinesiology [2-7]. Supervised experience in corporate/private business, clinical, community, educational, research, or sport performance setting. Application of knowledge, skills, and abilities in exercise science and/or health promotion. [Pre-requisite: completion of all kinesiology and exercise science option courses and IA. CR/NC. Rep up to 7 units.]


KINS 487. Biomechanics Lab Techniques [2]. This course introduces students to advanced biomechanics concepts and skills applied to research and clinical testing. Student gains an understanding of balance testing, gait analysis, electromyography, and force measurement. [Pre-requisite: KINS 386 (C). Kinesiology majors. Rep.]

KINS 489. Practice [3]. Application of principles of kinesiology in a school, community-based agency, physical therapy, clinical, or health promotion setting.

KINS 492. Senior Seminar in Kinesiology [3]. Selected trends. [Pre-requisite: senior standing.]

KINS 495. Directed Field Experience [1-6]. Assigned field experience under supervision of HSU staff. [Pre-requisite: HED 120 and junior standing. Rep.]

KINS 499. Directed Study [1-6]. Supervised independent study in areas not covered by scheduled courses. Open only to undergraduates. [Rep.]

GRADUATE


KINS 540. Exercise Psychology [3]. Theoretical and applied aspects of the psychology of exercise/physical activity. Topics include exercise adherence and behavior change, physical activity interventions across various populations, and exercise and psychological well-being. [Pre-requisite: KINS 474 or equivalent. Open to students in the Kinesiology MS program.]

KINS 575. Advanced Sports Nutrition [3]. Examine the impact of nutrition on exercise and sports performance. Topics include bioenergetics, macro- and micronutrients, nutrient timing, fluid balance, diet recommendations, weight management and disordered eating in sport. [Pre-requisite: HED 231, KINS 379.]

KINS 577. Adapted Physical Education Programs [4]. Relationship between handicapping conditions and physical activity. Value of physical activity for individuals with disabilities.

KINS 578. Adapted Aquatics for Instructors [2]. Develop aquatic activities for persons with disabilities. Red Cross certification. [Pre-requisite: water safety instructor.]

KINS 580. Special Topics [1-4]. Topics of current interest. [Rep.]

KINS 588. Optimizing Exercise Training [3]. This course covers exercise prescription and training based on advanced study of the physiological responses and adaptations to exercise and deep understanding of the metabolic, neuromuscular and cardiorespiratory systems. [Pre-requisite: KINS 379; junior standing or above.]


KINS 615. College Teaching in Kinesiology [3]. Conceptual and practical understanding of knowledge and skills applied to teaching in higher education. Topics include: collaborative/active learning techniques, developing students’ critical thinking skills, strategies in planning, instruction & assessment.

KINS 635. Research Methods in Kinesiology [3]. Introduction to research concepts, design, methods, analyses, and ethics in Kinesiology. Develop professional writing and presentation skills. [Pre-requisite: graduate standing with classified status in kinesiology MS program.]

KINS 640. Psychology of Sport & Exercise [3]. Introduction to theoretical and applied aspects of the psychology of sport and physical activity. Topics include: anxiety, body image, confidence, exercise and mood, injury, motivation, multicultural issues and performance enhancement.

KINS 650. Exercise Physiology [3]. Advanced study of the physiological responses and adaptations to physical activity. Emphasis is on the metabolic, neuromuscular, and cardiorespiratory systems. [Pre-requisite: KINS 379.]

KINS 655. Biomechanics [3]. Principles of physics and physiology applied to the analysis of human movement. Quantitative analysis of kinematics and

DCG diversity & common ground; d domestic; n non-domestic; GE general ed; IA instructor approval; lect lecture; prereq prerequisite; rec recommended preparation; rep repeatable for credit

2021-2022 Humboldt State University Catalog

Kinesiology 265
kinetics of human movement. Mechanical properties of muscles, tendons, ligaments and bones. [Pre-requisite: KINS 386 or equivalent.]

KINS 684. Graduate Seminar in Kinesiology (3). A readings, discussion, and seminar course designed to examine selected aspects of the human movement and sport professions. Recommended for those students entering the Physical Education graduate program. [Pre-requisite: graduate standing with classification status in Kinesiology MA program or IA.]

KINS 690. Thesis Writing Seminar (1-6). Written under direction of chairperson and/or committee. [Pre-requisite: KINS 635. Rep.]

KINS 691. Comprehensive Exam (0). Comprehensive exam for the Master’s degree in Kinesiology. [Pre-requisite: Completion of 24 units of graduate program coursework in Kinesiology. CR/NC]

KINS 695. Directed Field Experience (1-6). Approved practical assignment directly related to student MS program. Supervised by department faculty member. Pursuant to field study program procedures, submit detailed written report prior to starting and completing course. [Rep.]

KINS 699. Independent Study (1-6). [Pre-requisite: graduate standing with classified status in Kinesiology MS program or IA. Rep.]

Leadership Studies

All Leadership Studies (LDRS) courses are fully online and offered via self-support through the College of Extended Education & Global Engagement.

UPPER DIVISION

LDRS 311. Foundations of Leadership (3). Survey concepts of leadership: leadership styles, effective leadership, vision, and motivation. Critical thinking and team building emphasized. Includes definitions: leadership theories, leadership diversity, ethical leadership, and overcoming organizational obstacles. [Pre-requisite: Interdisciplinary Studies: Leadership Studies Major.]

LDRS 321. Data Driven Leadership (3). Develop understanding of theories, strategies, operational issues and research related to collecting, analyzing, summarizing and presenting data related to organizational effectiveness. Use analysis for forecasting. Basic methods of analyzing data. [Pre-requisite: LDRS 311.]

LDRS 331. Leadership Communication (3). Develop the basis of effective verbal, nonverbal, written, and listening communication skills for interpersonal, group, organizational, persuasive, crisis, and cross-cultural communication. Team building skills will be emphasized. [Pre-requisite: LDRS 311.]

LDRS 341. Strategic Planning & Forecasting (3). Develop the essential elements of a strategic plan for the organization identified in PLP. How to finance projects, conduct cost benefit analysis, develop a plan, set benchmarks and analyze forecasts. [Pre-requisite: LDRS 311.]

LDRS 351. Project Implementation/Evaluation (3). Implement and execute a complex project. Evaluate desirability by cost-benefit analysis, analyze sources of funding, implement and evaluate the project based on financial, accounting, sustainability and administrative data. [Pre-requisite: LDRS 341.]

LDRS 411. Managing Employees/Stakeholders (3). Analyze different methods of employee recruitment, retention, training, and empowerment. Legal pitfalls, employment law, and expanding stakeholder interests. Develop strategic knowledge of staffing, compensation, workforce design, assessment and legal issues. [Pre-requisite: LDRS 311.]

LDRS 421. Strategic Sustainability (3). Develops the concept of strategic sustainability to implement the triple bottom line of economic viability, environmental conservation and social responsibility to transform an organization. Examination of various sustainability frameworks. [Pre-requisite: LDRS 311.]

LDRS 431. Technology & Leadership (3). Develop an understanding of the strategic role of information systems to include hardware, software, personnel, databases, impact on organization, networking, the Internet, information security, the law and the future. [Pre-requisite: LDRS 311.]

LDRS 441. Developing Dynamic Organizations (3). Fundamentals of developing a flexible organization that creates a proactive learning environment. Motivating employees and creating new leadership opportunities. Organizational behavior and organizational psychology framework for transforming an organization. [Pre-requisite: LDRS 311; Interdisciplinary Studies: Leadership Studies Major.]

LDRS 451. Capstone in Leadership (3). Devoted to completing the leadership project of transforming an organization. A retrospective integrative course that requires students to synthesize relevant concepts and experiences to formulate an effective Personal Leadership Plan. [Pre-requisite: LDRS 321, LDRS 331, LDRS 351, LDRS 411, LDRS 421, LDRS 431, and LDRS 441.]

LDRS 480. Selected Topics in Leadership (5-4). Contemporary topics in leadership.

Liberal Studies / Elementary Education

LOWER DIVISION

LSEE 101. Foundations of Education (4). Introduction to teaching including educational foundations, classroom observations, the role of education in democratic societies, and the exploration of the knowledge, skills and dispositions needed to become an effective educator. [LSEE majors only: ELD.]

LSEE 211. Developmental Literacy (4). Analysis of developmental theories and approaches to emergent literacy, children’s literature, assessment, lesson design and intervention strategies that include fieldwork activities in elementary classrooms. [Pre-requisite: LSEE 101. LSEE majors only.]

LSEE 212. Language & Literacy (4). Foundational language and literacy skills are studies including linguistics and language conventions. Students observe and apply course content with elementary school students to expand their pedagogical content knowledge and skill. [Pre-requisite: LSEE 211.]

UPPER DIVISION

LSEE 308. Algebra, Geometry, & Data in the Elementary Classroom (3). Solid foundation for elementary school teaching focusing on the complementary development of symbol sense [algebra], spatial [geometry] and data sense [probability and statistics]. [LSEE majors only. GE B.]

LSEE 311. Mathematics Fieldwork Observation & Seminar (1.5). K-8 classroom observation of mathematics instruction. Includes a review of the California Mathematics content standards and discussion of teaching strategies used in the K-8 classroom. [Pre-requisite: MATH 308B (C).]

LSEE 312. Social Studies & Science Fieldwork Observation & Seminar (1.5). K-8 classroom observation of social studies and science instruction. Includes a review of the California Social Studies and Science content standards and discussion of teaching strategies used in the K-8 classroom. [Pre-requisite: HIST 311 (C) and SCI 331 (C).]

LSEE 313. Science for Elementary Education (3). Survey content course of the four domains of science taught to K-8 public school students with fieldwork in elementary school classrooms. Topics in life, physical, earth and space science as well as engineering and design. [Pre-requisite: LSEE 308; LSEE majors only.]

LSEE 314. Science for Elementary Education Field Practicum (1). Fieldwork during the junior year of LSEE includes tutoring and small group instruction while attending to children’s socioeconomic and cultural backgrounds. Fieldwork is aligned with specific course goals and objectives of LSEE 313 and the needs of the participating elementary or middle school. [Pre-requisite: senior standing. Must be Liberal Studies Elementary Education or Liberal Studies Child Development Elementary Education major. Weekly: 2 hours activity.]

LSEE 315. Social Studies for Elementary Education (4). Comprehensive theoretical and practical understanding of the social studies content for diverse K-8 learners including World, US and California History including aligned geography and economics content. [Pre-requisite: LSEE 212; LSEE majors only.]

LSEE 316. Language Arts for Elementary Education (4). Development of content knowledge in the major descriptions of literacy needed to become effective teachers in the area of language arts. [Pre-requisite: LSEE 212; LSEE majors only.]

LSEE 317. Number Sense & Operations in Elementary School Math (3). Improve facility
with, appreciation of, and understanding of math-
ematics to build a solid foundation for elementary
school teaching with a focus on number sense.
[LSEE majors only.]
LSEE 318. Number Sense & Operations in El-
ementary School Math Practicum [1]. Fieldwork
during the junior year of LSEE includes tutoring
and small group instruction while attending to chil-
dren’s socioeconomic and cultural backgrounds.
Fieldwork is aligned with specific course goals
and objectives of LSEE 317 and the needs of the
participating elementary or middle school.
[Prerequisite: junior or senior standing. Must be
Liberal Studies Elementary Education or Liberal
Studies Child Development Elementary Education
major: Weekly: 2 hours activity.]

LSEE 319. Algebra, Geometry & Data in the Ele-
mentary Classroom Practicum [1]. Fieldwork
during the junior year of LSEE includes tutoring
and small group instruction while attending to chil-
dren’s socioeconomic and cultural backgrounds.
Fieldwork is aligned with specific course goals
and objectives of LSEE 308 and the needs of the
participating elementary or middle school.
[Prerequisite: junior or senior standing. Must be
Liberal Studies Elementary Education or Liberal
Studies Child Development Elementary Education
major: Weekly: 2 hours activity.]
LSEE 333. English Language and Bilingual
Development [4]. Develop content knowledge
regarding the foundations of language acquisi-
tion and English language/Bilingual programs.
Students develop effective teaching strategies to
meet the academic needs of linguistically and
culturally diverse students. [Pre-requisite: LSEE
212; LSEE majors only.]
LSEE 377. Education of Exceptional Individuals
[4]. Introduction to core concepts, specific terms,
and definitions related to special populations in
education. Specific educational support needs and
effective techniques of instruction will be present-
et. [Pre-requisite: LSEE 212; LSEE majors only.]
LSEE 411. Language Arts Fieldwork & Seminar
[2]. The course included K-8 observation of reading
instruction, review of Language Arts standards,
and discussion of teaching strategies used by K-8
teachers. [Pre-requisite: ENGL 323 (C), ENGL 326
(C), and ENGL 424 (C)].
LSEE 412. Senior Capstone [1]. Discussions of
topics current in education leading to pursuit of
individual interest. Cumulative activity is a public
presentation of research findings and implications
for the elementary classroom. [Pre-requisite:
LSEE 411 (C)].
LSEE 421. Critical Multicultural Education [4].
Investigate issues such as opportunity gap, paren-
tal involvement and school funding to recognize
and understand the social, cultural, economic,
and historical factors affecting teaching and
learning. Critical reflection is facilitated through an
examination of multicultural children’s literature.
[LSEE majors only.]
LSEE 443. Action Research I [4]. Examines central
tenets, methods and procedures of action
research while engaged in community/school-
based projects with youth and developing an action
research proposal with a focus on social justice/
multiculturalism.
LSEE 453. Senior Seminar I [3]. Synthesize the
knowledge, skills, and interests developed through
their education and, in concert with participation
in community youth organizations, develop focus
areas from which to develop action research pro-
jects. [Pre-requisite: LSEE 377; LSEE majors only.]
LSEE 454. Senior Seminar II [3]. Synthesize
knowledge, skills, and interests developed through
education and design a portfolio highlighting learn-
ing, continued community participation with youth,
action research and growth as a professional.
LSEE majors only.]

LSEE 475. Health & Physical Education [3].
Develop knowledge and skills to teach and
evaluate health/physical education programs
for the elementary classroom through observation
and participation in classroom activities. [Pre-
requisite: Prerequisite: junior or senior standing.
Must be Liberal Studies Elementary Education or
Liberal Studies Child Development Elementary
Education major.]
LSEE 499. Directed Study [1-3]. Individual Study;
staff direction. [Rep.]

CREDENTIAL

LSEE 713. Integrated Elementary Science &
Mathematics Methods I [4]. Content, methods,
and materials for teaching science and math-
ematics in an integrated elementary classroom.
[Pre-requisite: LSEE 308, LSEE 313, LSEE 317,
LSEE 318, and LSEE 319. Junior standing or
higher. Must be Liberal Studies Elementary Edu-
cation ITEP major: Weekly: 3 hours lecture and 2
hours activity.]

LSEE 714. Integrated Elementary Science and
Mathematics Methods II [2]. Content, methods,
and materials for teaching mathematics/science
in an integrated elementary classroom including
activities/materials, planning lessons, technology,
evaluating learning, and integrating math/science
with other content areas through fieldwork place-
ment. [Pre-requisite: LSEE 413. LSEE majors only.]

LSEE 715. Integrated Art, Language Arts and
Social Studies I [4]. Content knowledge from Art,
Social Studies and Language Arts is reviewed and
analyzed while exploring pedagogies to teach an
integrated curriculum. Methods and strategies to
teach integrated lessons are investigated. [Pre-
requisite: LSEE 315; LSEE majors only.]

LSEE 716. Integrated Art, Language Arts and
Social Studies II [2]. Integration of Art/Language
Arts/Social Studies through the demonstration
of content knowledge and the development and
implementation of integrated lesson plans for
fieldwork placements in elementary classrooms.
[Pre-requisite: LSEE 715. LSEE majors only.]

LSEE 723. School, Student and Social Develop-
ment [4]. Foundations of teaching and learning of
the school-age child; understanding development,
learning, theory and practice; application of human
development theories, approaches to discipline,
and classroom management. [Pre-requisite: LSEE
421; LSEE majors only.]

LSEE 735. Senior/Credential Capstone I [1].
Growth and development of reflective educators
and lifelong learners through the demonstration
of student teaching and performance assessment
competencies and self-reflection. [Prerequisite:
senior standing. Must be Liberal StudiesElemen-
tary Education ITEP major.]

LSEE 754. Senior/Credential Capstone II [1].
Growth and development of reflective educators
and lifelong learners through the demonstration
of student teaching and performance assessment
competencies and self-reflection. [Prerequisite: LSEE
753 and senior standing. Must be Liberal
Studies Elementary Education ITEP major.]

LSEE 755. Clinical Practicum I [3]. Students
in this course will be referred to as Candidates
because they are now candidates for a credential.
Candidates are required to complete student
teaching fieldwork in a year-long placement in a
local elementary school. Candidates are evaluated
by a mentor teacher [fall/spring] with faculty
mentor [fall] and a university supervisor [spring].
[Prerequisite: senior standing. Must be Liberal
Studies Elementary Education ITEP major.]

LSEE 756. Clinical Practicum II [6]. Second part
of the Clinical Practicum. Students in this course
will be referred to as Candidates because they are
now candidates for a credential. Candidates are
required to complete student teaching fieldwork
in a year-long placement in a local elementary
school. Candidates are evaluated by a mentor
teacher [fall/spring] and by a university supervisor
[spring]. [Prerequisite: senior standing. Must be
Liberal Studies Elementary Education ITEP major.]

Linguistics

UPPER DIVISION

LING 495. Practicum in Language Studies
[3]. Interdisciplinary approach. Relationship of
language studies to other areas of intellectual
achievement. Central topics vary. [Pre-requisite:
senior standing and approval by linguistics com-
mittee.]
Mathematics

SUPPORT

Note that credit earned for support courses does not count toward unit requirements for graduation, GE, or major.

MATH 1. Support for College Algebra [1]. Integrated support for development of quantitative reasoning in College Algebra. [Co-requisite: MATH 101.]


MATH 4. Support for Finite Mathematics [1]. Integrated support for development of quantitative reasoning in Finite Mathematics. [Co-requisite: MATH 104.]

MATH 99. Supplementary Instruction in Mathematics (2). For students needing help in mathematics courses. Enroll concurrently in supported class. [CR/NC]

LOWER DIVISION

Prerequisites: Most mathematics courses have prerequisites. Thus, to be eligible to enroll in a mathematics course, a student must have received a grade of C- or higher in the HSU courses listed as prerequisites. In some lower division courses, a student may also satisfy the prerequisites by having an appropriate placement category or taking an HSU mathematics placement exam.

MATH 101. College Algebra (3). Topics include algebraic equations and inequalities; polynomial, rational, algebraic, exponential, and logarithmic functions; compositions and inverses; geometric transformations and properties of functions; difference quotients. [Pre-requisite: Math placement category I, II or III. GE B.]

MATH 101i. College Algebra with Integrated Support (3). Algebraic equations and inequalities; polynomial, rational, algebraic, exponential, and logarithmic functions; compositions and inverses; geometric transformations and properties of functions; difference quotients. [Pre-requisite: Math placement category I, II or III. GE B.]

MATH 102. Algebra & Elementary Functions (4). In-depth treatment of exponential, logarithmic, trigonometric, and polynomial functions. [Pre-requisite: Math placement category I, II or III. Rec: take three or more years of high school mathematics including Algebra II. GE B.]

MATH 103. Mathematics as a Liberal Art (3). Development of quantitative reasoning through ways mathematics uses quantitative, geometrical, algebraic, and statistical thinking in problem solving. [Pre-requisite: Math placement category I, II or III. GE B.]

MATH 103i. Mathematics as a Liberal Art with Integrated Support (3). Integrated support for development of quantitative reasoning through ways mathematics uses quantitative, geometrical, algebraic and statistical thinking in problem solving. [Open to students in Math placement category III or IV. Co-requisite: MATH 3. GE B.]

MATH 104. Finite Mathematics (3). Topics include linear models, systems of linear equations, linear programming with two variables, financial mathematics, sets, basic probability and an introduction to descriptive statistics. [Pre-requisite: Math placement category I, II or III. GE B.]

MATH 104i. Finite Mathematics with Integrated Support (3). Integrated support for development of quantitative reasoning through business-relevant topics including linear models, systems of linear equations, linear programming, financial mathematics, sets, basic probability and descriptive statistics. [Open to students in Math placement category III or IV. Co-requisite: MATH 4. GE B.]

MATH 105. Calculus for the Biological Sciences & Natural Resources (3). Differential and integral calculus. Apply to biological sciences, including exponential growth and decay. [Pre-requisite: MATH 101 and MATH 101T or MATH 102. GE B.]

MATH 108. Critical Thinking in Mathematics (3). Develop and apply critical thinking and problem-solving skills by exploring patterns, and mathematical themes in school and society. Intended primarily for prospective preschool and elementary teachers. [Pre-requisite: Math placement category I or II. GE B.]

MATH 109. Calculus I (4). Limits, continuity, derivatives, integrals, and their applications. [Pre-requisite: MATH 101T or MATH 102. GE B.]

MATH 110. Calculus II (4). Logarithmic and exponential functions, inverse trigonometric functions, techniques of integration, infinite sequences and series, trigonometric and algebraic and statistical thinking in problem solving. 

MATH 118. Supplemental Instruction (1). Collaborative work for students enrolled in mathematics. [Co-requisite: MATH 102. CR/NC. Rep.]

MATH 210. Calculus III (4). Vectors; parametric equations; 3-dimensional analytic geometry; vector-valued functions; partial derivatives; multiple integrals; introduction to line integrals. [Pre-requisite: MATH 110.]

MATH 215. Multivariate Calculus for the Biological Sciences & Natural Resources (3). Differential equations, partial derivatives, double integrals, and curve fitting techniques; vectors; applications. [Pre-requisite: MATH 105 or completed Calculus I or II.]

MATH 240. Introduction to Mathematical Thought (3). Mathematical reasoning, writing, and proofs; sets, functions, topics in discrete mathematics, problem formulation, problem solving. [Pre-requisite: MATH 110.]

MATH 241. Elements of Linear Algebra (3). Linear systems, matrices, determinants, linear independence, bases, eigenvalues, and eigenvectors. [Pre-requisite: MATH 210 (C) or MATH 215.]

MATH 253. Discrete Mathematics (3). Sets, functions, relations, algorithms, induction, recursion, combinatorics, graphs, trees, and propositional logic. [Pre-requisite: MATH 101T (C), or MATH 102 and CS 111.]

MATH 280. Selected Topics in Mathematics (1-3). [Pre-requisite: IA. Rep.]

UPPER DIVISION

MATH 301. Mathematics & Culture: Historical Perspective (3). Various cultures’ influence on development of mathematics. “Pythagorean theorem before/after Pythagoras; history of pi from biblical to modern times; primes and perfect numbers from Euclid to today; evolution of algebra from Omar Khayyam to Renaissance and beyond. Meets history requirement for math secondary education, but for math majors does not count toward 26 units of 300-level (or above) courses. [Pre-requisite: MATH 101T or MATH 102. CNGN. GE B.]

MATH 308B. Mathematics for Elementary Education (3). Develop advanced perspective of concepts, structures, and algorithms of math constituting the core of K-8 math curriculum: the real number system; number theory; algebra and functions; geometry and measurement; probability and statistics; mathematical reasoning. Does not apply toward math major/minor. [Pre-requisite: completed lower division GE math or higher; IA required for majors other than LSCD, LSEE, or CDEE. GE B.]

MATH 308C. Mathematics for Elementary Education (3). Develop advanced perspective of concepts, structures, and algorithms of math constituting the core of K-8 math curriculum: the real number system; number theory; algebra and functions; geometry and measurement; probability and statistics; mathematical reasoning. Does not apply toward math major/minor. [Pre-requisite: MATH 308B. IA required for majors other than LSCD, LSEE, or CDEE. GE B.]

MATH 311. Vector Calculus (2). Vector fields; line and surface integrals; Green’s theorem, divergence theorem, Stokes’ theorem; applications. [Pre-requisite: MATH 210 and MATH 241.]


MATH 315. Advanced Calculus (4). Theory and applications of differential and integral calculus for vectors and several variables. Taylor’s theorem and implicit function theorem. Transformations and mappings; line and surface integrals; integral...
MATH 413. Advanced Ordinary Differential Equations (3). Existence and uniqueness of solutions; linear systems and vector-matrix differential equations; oscillation and comparison theorems; nonlinear differential equations and stability. [Pre-requisite: MATH 313 or equivalent. Offered alternate years.]

MATH 416. Real Analysis II (3). Sequences and series of functions, uniform convergence, power series, metric spaces. [Pre-requisite: MATH 316. Strongly rec: MATH 343. Offered alternate years.]

MATH 418. Introduction to Complex Analysis (3). Analytic and meromorphic functions, power series, singularities, and residues. [Pre-requisite: MATH 210 and MATH 240. Offered alternate years.]

MATH 443. Advanced Algebraic Structures (3). Advanced topics in groups, rings, and fields; polynomials and Galois theory; applications. [Pre-requisite: MATH 343. Offered alternate years.]

MATH 461. Applied Mathematical Practicum (4). Practical experience constructing and analyzing mathematical and statistical models for problems from industry, government or business. Information on mathematical careers in industry, government, or business. [Pre-requisite: 8 units of upper division mathematics courses or PHYX 340 or ENGR 322 or IA. Rec: Majors: mathematics major; junior or senior standing.]


MATH 474. Graph Theory (3). Finite graphs, trees, digraphs, Eulerian and Hamiltonian graphs, mappings, graphs as models, coloring problems, and application of graph theory. [Pre-requisite: MATH 240 or MATH 253 or IA. Offered alternate years.]

MATH 480. Selected Topics in Mathematics (1-4). [Pre-requisite: IA. Rep.]

MATH 481. Workshop in Tutoring Mathematics (1). Teaching techniques applicable to a tutorial setting. Primarily for students concurrently tutoring math. [CR/NC. May count for credit only toward a major in mathematics (education). Pre-requisite: IA. Rep. twice.]

MATH 485. Seminar in Mathematics (1-2). Individual research on advanced problems. [Pre-requisite: grad standing. [Rep.]

MATH 685. Seminar in Mathematics (1-2). Review and report on current literature and problems. [Rep.]


MATH 691. Directed Research (1-2). Individual research on advanced problems. [Pre-requisite: grad standing. [Rep.]

MATH 693. Directed reading and conferences on special topics. [Rep.]

CREDENTIAL/LICENSURE

MATH 700. In-Service Professional Development in Mathematics (5-3). Directed studies for professionals in mathematics desiring advanced or specialized instruction, especially that leading to credentialing and certification. [Pre-requisite: IA. CR/NC. Rep.]

MATH 701. In-Service Professional Development in Mathematics Education (5-5). Directed studies for professionals in mathematics desiring advanced or specialized instruction in curricular or pedagogical areas of K-16 mathematics. [Pre-requisite: IA. Rep.]

MATH 707. Elementary Mathematics from an Advanced Viewpoint (1-3). Topics of interest to high school teachers: algebra, geometry, probability and statistics, number theory, history of mathematics, applications of mathematics, classical problems. Topics depend on student backgrounds. [Pre-requisite: IA. Rep.]

GRADUATE


MATH 561. Dynamic Systems (4). Linear and nonlinear systems of difference equations and differential equations as applied to mathematical models of real dynamic phenomena: bifurcation theory. [Pre-requisite: MATH 313 and MATH 344.]

MATH 562. Model Fitting (4). Contemporary approaches to fitting descriptive and mechanistic models to data. Topics include likelihoods, parameter estimation, information-theoretic criteria, time series, and numerical methods. [Pre-requisite: MATH 313 and STAT 323, or IA.]

DRAFT
Music

Instrument Studies (class & studio instruction): MUS 106, 109, 220-237 and MUS 420-428

LOWER DIVISION

MUS 103. Listening to the Movies [3]. Movie classics will be viewed and discussed to acquire a comprehensive and practical understanding of the prevailing techniques employed in the art and craft of contemporary film scoring techniques. [GE C.]

MUS 104. Introduction to Music [3]. Non-music majors learn styles, techniques, and forms of various musical periods. Lectures, recordings, concerts. Acquire greater understanding and enjoyment of music. [GE C.]

MUS 105. The American Musical [3]. Historical survey of musical theatre in US, emphasizing Broadway productions. Song and dialog presented through recordings and videos. [GE C.]


MUS 106J. AM Jazz Band [1]. Performance ensemble for novice jazz instrumentalists. Perform jazz literature; study jazz techniques. [Rep. GE C.]


MUS 107B. Brass Chamber Music [1]. Study/perform brass chamber music of all eras. [Pre-requisite: IA. Rep. GE C.]

MUS 107C. Calypso Band [1]. Study/perform traditional and contemporary music for steelband. [Pre-requisite: IA. Rep. GE C.]

MUS 107F. Woodwind Chamber Music [1]. Study/perform woodwind chamber music of all eras. [Pre-requisite: IA. Rep. GE C.]

MUS 107G. Guitar Chamber Music [1]. Study/perform guitar chamber music of all eras. [Pre-requisite: IA. Rep. GE C.]

MUS 107I. Intermediate Orchestra [1]. Study/perform orchestral music for less experienced players. [GE C.]

MUS 107J. Jazz Combos [1]. Study/perform jazz combo music from all eras. [Pre-requisite: IA. Rep. GE C.]


MUS 107Q. World Percussion Ensemble [1]. Study/perform music for percussion ensembles from around the world. [Pre-requisite: IA. Rep. GE C.]

MUS 107S. Chamber Music — Service Learning [1]. Study/perform chamber music from all eras. Perform for community partners, and assess and reflect on the experience. [Pre-requisite: IA. Req. fall semester enrollment in a Chamber Music course. Rep. GE C.]

MUS 107T. String Chamber Music [1]. Study/perform string chamber music from all eras. [Pre-requisite: IA. Rep. GE C.]


MUS 108G. Class Applied Instruction: Acoustic Guitar [1]. Class instruction on acoustic guitar. No previous experience required. Students must provide their own instruments. [Rep. GE C.]

MUS 108K. Class Applied Instruction: Piano [1]. Class instruction on the piano. No previous experience required. [GE C.]


MUS 108T. Class Applied Instruction: Strings [1]. Class instruction on string instruments. No previous experience required. [Rep. GE C.]

MUS 108V. Class Applied Instruction: Voice [1]. Class instruction on woodwind instruments. No previous experience required. [Rep. GE C.]

MUS 109G. Class Applied Instruction: Guitar [1]. Students must provide their own instruments. [Pre-requisite: IA. Rep. GE C.]


MUS 110. Fundamentals of Music [3]. Keys, scales, intervals, rhythm, meter; triads, and seventh chords. [Open to music majors; IA required for non-majors.]

MUS 112. Piano I [1]. Beginning class piano studies for music majors. [Pre-requisite: MUS 110 (C). Open to music majors only.]

MUS 113. Piano II [1]. The second semester of class piano studies for music majors. [Pre-requisite: MUS 112.]

MUS 130. Piano III [1]. Instruction for non-piano emphasis music majors and minors. [Pre-requisite: MUS 112 and MUS 113, or IA. Co-requisite: MUS 215.]

MUS 180. Special Topics Seminar [1-3]. Topics relevant to performance practices, periods, or genre of music history and literature. [Rep.]

MUS 204. Music in the K-8 Classroom [3]. Prepares pre-service teachers for effective delivery of general music lessons in the elementary self-contained classroom. Designed primarily for LSEE majors; music majors should take MUS 319 instead. [LD GE C.]

MUS 214. Theory I [3]. Diatonic melodic and harmonic practices involving analysis and 4-part writing. Species counterpoint, modes, triads, 7th chords, figured bass, nonharmonic tones, chord progressions, cadences. [Pre-requisite: MUS 110 or passing score on placement test.

MUS 215. Theory II [3]. Continues MUS 214: pre-dominant 7th chords, sequences, secondary chords, modulation, binary and ternary forms. [Pre-requisite: MUS 214 or IA.]

MUS 216. Ear Training [1]. Comprehensive ear training correlated to MUS 214; develop music reading and perception skills through studies in rhythm, sight singing, dictation, keyboard, and notation. [Co-requisite: MUS 214 or IA.]


220 Studio Piano [Co-requisite: MUS 106 or MUS 107 or MUS 353 or MUS 406 or MUS 407.]

221 Studio Voice [Co-requisite: MUS 106 or MUS 107 or MUS 406 or MUS 407.]

222 Studio Flute

223 Studio Oboe

224 Studio Clarinet

225 Studio Bassoon

226 Studio Saxophone

227 Studio Trumpet

228 Studio Horn

229 Studio Trombone

MUS 280. Special Topics [1-3]. Special topics such as career preparation, technology, performance practices, music history, or music theory. [Rep; multiple enrollments in term.]

UPPER DIVISION

MUS 301. Rock: An American Music [3]. Major artists and movements of rock music studied in social, historical, and musical contexts. Pioneers of the 50s through today’s rebellion, experimentation, and new trends. [DCG-d. GE C.]

MUS 302. Music in World Culture [3]. Explores the musical traditions of African, Indian, Asian, Indonesian, Latin American, and Caribbean cultures compared in artistic, social, religious, and political contexts. [DCG-n. GE C.]


MUS 314. Theory III [3]. Neapolitan, augmented 6th, and mixed chords; enharmonic modulation; 20th century techniques: tone rows, set theory, quartal harmony, modal writing, polymeters, and asymmetric meters. [Pre-requisite: MUS 314 or IA.]

MUS 315. Theory IV [3]. 20th century techniques; tone rows, set theory, quartal harmony, polyclonality, pandiatonicism, chance operations, modal writing, polymeters, and asymmetric meters. [Pre-requisite: MUS 314 or IA.]


MUS 317. Ear Training IV [1]. Continues MUS 316. [Pre-requisite: MUS 314 (C) and MUS 316 (C), or IA. Co-requisite: MUS 315.]

MUS 318. Jazz Improvisation [2]. Train in contemporary art of jazz improvisation through use of scales, chords, and idiomatic musical devices. [Pre-requisite: MUS 214 or IA. Rep once.]


MUS 320. Composition: Film Scoring [3]. Study and compose music for scenes of dramatic and narrative films. [Rep.]


MUS 323. Jazz Pedagogy [2]. Major principles and concepts involving the teaching of jazz in K-12 classrooms. Emphasis placed on both theory and practice. Music education majors develop skills and strategies for instruction of both instrumental and choral jazz groups. [Pre-requisite: MUS 214 or IA.]


MUS 326. Counterpoint [2]. Overview of Renaissance, common practice, and modern counterpoint. Emphasis: baroque techniques. [Pre-requisite: MUS 314 (C) or IA.]


MUS 334. Fundamentals of Conducting [2]. Beat patterns, expressive gestures, score reading, musical ranges, rehearsal planning, correction of errors. [Pre-requisite: MUS 314 or IA.]

MUS 338. Vocal & Instrumental Scoring [3]. Techniques of arranging music for vocal and instrumental performing groups (large and small). Score layout and legibility, part copying, transpositions, and ranges of instruments and voices. [Pre-requisite: MUS 215 (C)].

MUS 340. Junior Recital [0]. Junior Recital for guitar and piano performance concentration majors. To be taken during the semester that the recital is performed. Requires permission of the Studio Instructor. [Co-requisite: MUS 420. CR/NC.]

MUS 348. Music History: Antiquity to 1750 [3]. Analyze musical styles and composition technique in examples selected from medieval, Renaissance, and baroque music. For music majors and minors or by instructor approval. [Pre-requisite: MUS 104 and MUS 314 (C)].

MUS 349. Music History: 1750 to Present [3]. Analyze musical style in selected examples of classical, romantic, and 20th century music. Written research projects. [Pre-requisite: MUS 315 (C) and MUS 348.]

MUS 353. Accompanying [1]. Keyboard accompanying for instrumental or vocal solos or groups. [Pre-requisite: MUS 220 (C). Rep.]

MUS 356. Lyric Diction [2]. Techniques and problems of singers’ pronunciation in all major languages. [Pre-requisite: MUS 215 or IA.]


MUS 370F. Woodwind Techniques I [1]. Instruction in woodwind instrumental techniques and pedagogy. [Pre-requisite: music major or IA. Rep once.]

MUS 370T. String Techniques I [1]. Instruction in string instrumental techniques and pedagogy. [Pre-requisite: music major or IA. Rep once.]

MUS 371F. Woodwind Techniques II [1]. Instruction in woodwind instrumental techniques and pedagogy. [Pre-requisite: MUS 370F; music major or IA. Rep once.]

MUS 372B. Brass Techniques I [1]. Instruction in brass instrumental techniques and pedagogy. [Pre-requisite: music major or IA. Rep once.]

MUS 372P. Percussion Techniques I [1]. Instruction in percussion instrumental techniques and pedagogy. [Pre-requisite: MUS 370T, music major or IA. Rep once.]

MUS 373B. Brass Techniques II [1]. Instruction in brass instrumental techniques and pedagogy. [Pre-requisite: MUS 372B, music major or IA. Rep once.]

MUS 373P. Percussion Techniques II [1]. Instruction in percussion instrumental techniques and pedagogy. [Pre-requisite: MUS 372P, music major or IA. Rep once.]

MUS 384. Advanced Choral Conducting & Literature [2]. Advanced conducting techniques and survey of choral literature for application to K-12 music teaching. Through lecture and physical activity, this course expands on basic conducting patterns and techniques introduced in MUS 334 to include mixed meter; irregular meter; senza misura, cuing, use of left hand, and baton technique. Literature appropriate for major choral ensemble types (concert choir; jazz choir; madrigals, etc.) will be studied. [Pre-requisite: MUS 334 and IA.]

MUS 385 P / V. Performance Seminar [1]. Perform, listen to, and critique literature and performances. [Pre-requisite: IA. Rep.]

MUS 387. Advanced Instrumental Conducting & Literature [2]. Advanced conducting techniques and survey of instrumental literature for application to K-12 music teaching. Through lecture and physical activity, this course expands on basic conducting patterns and techniques introduced in MUS 334 to include mixed meter, irregular meter; senza misura, cuing, use of left hand, and baton technique. Literature appropriate for major
ensemble types will be studied. [Pre-requisite: MUS 334 and IA]


MUS 391L. Piano Pedagogy Lab [1]. Lab practice for piano teachers and their students. [Rep.]


MUS 392L. Vocal Pedagogy Lab [1]. Lab practice for voice teachers and their students. [Rep.]


MUS 406J. AM Jazz Band [1]. Performance ensemble for novice jazz instrumentalists. Perform jazz literature; study jazz techniques. [Rep.]

MUS 406K. Jazz Orchestra [1]. Perform literary composed or arranged for large jazz ensemble. Stylistic interpretation; ensemble playing; study of literature. Occasional off-campus concerts. [Pre-requisite: IA based on auditions. Rep.]

MUS 406N. Humboldt Chorale [1]. Study/perform choral music of all periods. Emphasis on larger works. No formal audition. [Pre-requisite: IA based on interview. Rep.]


MUS 407B. Brass Chamber Music [1]. Study/perform brass chamber music of all eras. [Pre-requisite: IA. Rep.]

MUS 407C. Calypso Band [1]. Study/perform traditional and contemporary music for steelband. [Pre-requisite: IA. Rep.]

MUS 407F. Woodwind Chamber Music [1]. Study/perform woodwind chamber music of all eras. [Pre-requisite: IA. Rep.]

MUS 407G. Guitar Chamber Music [1]. Study/perform guitar chamber music of all eras. [Pre-requisite: IA. Rep.]


MUS 407J. Jazz Combos [1]. Study/perform jazz combo music from all eras. [Pre-requisite: IA. Rep.]

MUS 407P. Percussion Ensemble [1]. Study/perform traditional and contemporary music for percussion ensemble. [Pre-requisite: IA. Rep.]

MUS 407Q. World Percussion Ensemble [1]. Study/perform music for percussion ensembles from around the world. [Pre-requisite: IA. Rep.]

MUS 407S. Chamber Music — Service Learning [1]. Study/perform string chamber music from all eras. Perform for community partners, and assess and reflect on the experience. [Pre-requisite: IA. Req: fall semester enrollment in a Chamber Music course. Rep.]

MUS 407T. String Chamber Music [1]. Study/perform string chamber music from all eras. [Pre-requisite: IA. Rep.]

MUS 407V. Madrigal Singers [1]. Study/perform small ensemble vocal music with emphasis on music of the Renaissance. [Pre-requisite: IA based on auditions. Rep.]


420 Studio Piano for Performance and Music Education [Co-requisite: MUS 105 or MUS 107 or MUS 353 or MUS 406 or MUS 407.]

421 Studio Voice for Performance and Music Education [Co-requisite: MUS 105 or MUS 107 or MUS 406 or MUS 407.]

422 Studio Flute for Performance and Music Education

423 Studio Oboe for Performance and Music Education

424 Studio Clarinet for Performance and Music Education

425 Studio Bassoon for Performance and Music Education

426 Studio Saxophone for Performance and Music Education

427 Studio Trumpet for Performance and Music Education

428 Studio Horn for Performance and Music Education

429 Studio Trombone for Performance and Music Education

430 Studio Euphonium for Performance and Music Education

431 Studio Tuba for Performance and Music Education

432 Studio Percussion for Performance and Music Education

433 Studio Violin for Performance and Music Education

434 Studio Viola for Performance and Music Education

435 Studio Cello for Performance and Music Education

436 Studio String Bass for Performance and Music Education

437 Studio Guitar for Performance and Music Education


MUS 454. Expanded Repertoire [1]. Additional lesson credit for students who are doing at least double the amount of practice and performing as would be expected for students enrolled in 400-level studio lessons. [Pre-requisite: IA. Co-requisite: Studio for Performance and Music Education MUS 420-438. Rep.]


MUS 458. Special Topics [1-3]. Special topics such as career preparation, technology, performance practices, music history, or music theory. [Rep; multiple enrollments in term.]

MUS 485. Undergraduate Seminar [1-3]. Performance practices, periods, or genre of music history and literature not treated in depth in other offerings. [Pre-requisite: IA. Rep.]

MUS 499. Directed Study [1-3]. Methods of research; projects in music and music teaching. [Pre-requisite: IA. Rep.]

Native American Studies

LOWER DIVISION

NAS 104. Introduction to Native American Studies [3]. Origins and development of content/method in NAS. Contrast the field with adjoining and contributing disciplines (anthropology, history, sociology, and humanities). [DDC-d. GE D or GE F]

NAS 107. Introduction to California Indian Peoples & Places [3]. Introduction to California Indian tribes and place-based learning exploring contemporary political, social, environmental issues and representations through California Indian perspectives and knowledges. A place-based approach to anti-racist and anti-colonial movements through community-centered learning and a foundational overview of California Indian tribes. Topics can include but are not limited to: Tribal
citizenship, Self-determination, Decolonization, Sovereignty, and Settler Colonialism. [GE F]


NAS 280. Selected Topics in Native American Studies [1-4]. Special topic, current issues in Indian country, or introductory field research. [Rep with different topics.]

**UPPER DIVISION**

NAS 301. Native American Literature [3]. Contemporary. Topics vary from a broad introduction to focus on one of the following genres: poetry, prose, fiction, nonfiction, and native autobiography. [DCG-d. GE C. Rep with different topics.]

NAS 302. Oral Literature & Oral Tradition [3]. Identify, interpret, and decipher native symbols depicted in tribal myths, legends, songs, art, oratory, poetry, prose. [DCG-d. GE C. Rep with different topics.]

NAS 306. Indigenous Peoples of the Americas [3]. Traditional cultures, historical development, and contemporary social and political situations. [DCG-d. GE D.]


NAS 320. Native American Psychology [3]. Compare and critique selected philosophical constructs manifested within European and Native American values and experiences. [GE F.]

NAS 325. Native Tribes of California [3]. Traditional cultures of native peoples: archeology, material culture, social organization, historical interrelationships. [GE F.]


NAS 332. Environmental Justice [3]. Issues/concerns that led to Executive Order 12898 (environmental policies and conflicts between industries and those seeking environmental protection, including Alaska Native villages, "lower 48" tribes, grassroots community organizations). [DCG-d.]

NAS 340. Language & Communication in Native American Communities [3]. Native American languages in social, cultural, and historical contexts. Precontact languages; traditional modes of language use; efforts to preserve or revive languages. [GE F.]

NAS 345. Native Languages of North America [3]. Survey principle languages of northwestern California [Hupa, Karuk, Tolowa, Yurok]. No special background required; college-level work in non-English language is helpful.

NAS 381. Tribal Sovereignty, Tribal Citizens [3]. Comprehensive review of NA civics and dual role of tribal citizenship in the US. Topics: tribal governance, tribal justice systems, Indian-White relations, education, religious conflict, community development. [GE F.]


NAS 384. Federal Indian Law I [4]. Unique federal/triibal legal and historical relationship. Scope and authority of tribal governments as modified through contact with the federal government. Federal legislation and Supreme Court decisions regarding Indians and tribes.


NAS 386. Tribal Water Rights [4]. Federal/state water laws and Indian treaties; water problems on Western reservations as classic examples.


NAS 394. Experiential Learning [1-3]. Workshops and projects focusing on traditional and contemporary Native American activities. [Rep. CR/NC.]

NAS 468. Tribal Justice Systems [3]. Examines the creation and maintenance of the legal relationships between Indigenous nations and their citizens. Focusing on tribal courts, policing, informal and formal mechanisms of conflict resolution and social control. [DCG-d.]

NAS 480. Selected Topics in Native American Studies [1-4]. Special topic, problem area, or field research. [Rep with different topics.]

NAS 491. Mentoring [1-2]. Advanced majors gain experience as teaching assistants working with a diverse body of students. [Pre-requisite: NAS 104, NAS 200, junior standing or above, and IA. Rep.]

NAS 492. Native American Studies Capstone Experience [3]. Capstone experience for NAS majors. Students to apply knowledge of NAS to practical problems. Course will entail either group or individual projects. [Pre-requisite: NAS 104, NAS 200, NAS 364, Native American Studies major with junior standing or greater.]

NAS 499. Directed Research [1-3]. Take only one NAS 499 class per semester and four NAS 499 classes per academic career at HSU. Both provisions subject to petition. Advanced students only. [Pre-requisite: IA.]

**GRADUATE**


**Natural Resources**

**UPPER DIVISION**

NR 480. Selected Topics [1-3]. [Rep with different topics.]

NR 499. Directed Study [1-3]. Independent research. [Rep.]

**Nursing**

**UPPER DIVISION**

NRSG 348. Development for Professional Practice [3]. This course is designed for RN-BSN students. This course focuses on socialization and development into professional nursing roles including the nurse as professional, advocate, leader, provider and coordinator/collaborator of care. The course also focuses on the nursing process using an eclectic theoretical model and discussion of selected issues in professional practice. Students are expected to utilize critical thinking skills to address the concepts of this course. [Pre-requisite: nursing major; junior standing or above. Co-requisite: NRSG 350.]

NRSG 350. Pathophysiology for Nursing Practice [3]. This course builds upon the student’s prior knowledge of disease processes throughout the lifespan including cellular function and integrative body functions. The course focuses on the pathophysiologic rationale for nursing interventions. [Pre-requisite: nursing majors, junior standing or above. Co-requisite: NRSG 372.]

NRSG 372. Health Assessment & Promotion Across the Lifespan [3]. Introduces principles related to conducting a complete health assessment. Concepts include: history taking, physical examination, diagnostic testing, health promotion and patient education. [Pre-requisite: nursing majors, junior standing or above. Co-requisite: NRSG 350.]

NRSG 390. Nursing Informatics & Information Literacy and Competency [3]. Introduction to nursing information literacy and information science and information systems. Research skills to strengthen evidence-based practice for consumer-centered computer-supported care. [Pre-requisite: nursing majors, junior standing or above. Co-requisite: NRSG 348.]

NRSG 460. Nursing Leadership & Management Dynamics [3]. Review and analysis of the principles related to organizational theory,
socioeconomic political trends and healthcare delivery systems. This course focuses on leading and managing comprehensive care coordination in at-risk, rural, and/or vulnerable populations. [Pre-requisite: NRSG 348, NRSG 350, NRSG 372, NRSG 390, nursing majors, junior standing or above. Corequisite: HED 451, NRSG 490.]


NRSG 480. Introduction to Nursing Research [3]. This course is designed to introduce registered nurses to the research process and to research concepts applicable to clinical practice; reading, analyzing and critiquing research; and the development of skills in writing professional nursing papers. This is a writing intensive course. [NRSG 348, NRSG 350, NRSG 372, NRSG 390. Co-requisite: HED 451, NRSG 460.]

Oceanography

LOWER DIVISION

OCN 109. General Oceanography [3]. Extent of the oceans; chemical nature of sea water; causes/effects of currents, tides, and waves; animal and plant life in the sea; features of the ocean floor. [Corequisite: OCN 109L. Weekly: 3 hrs lect, 3 hrs lab. GE B.]

OCN 109L. General Oceanography Laboratory [1]. Introductory laboratory activities to develop understanding of fundamental concepts from geological, chemical, physical, and biological oceanography and the inter-relationship between those concepts. [Pre-requisite: OCN 109 (C). GE B.]

OCN 250. Sampling Techniques & Field Studies [1]. Introductory course for majors. Biological, chemical, geological, and physical oceanographic methods of sampling and analysis. Shipboard procedures and navigation. [Pre-requisite: OCN 109 (if taken prior to fall 2015) or OCN 109 and OCN 109L.]

UPPER DIVISION

OCN 301. Marine Ecosystems — Human Impact [3]. Relationships and interaction between humans and marine life. Living organisms: in history and legend, as food, and as industrial resource. Problems and aesthetic aspects of marine organisms. [Pre-requisite: OCN 109 (if taken prior to fall 2015) or OCN 109 and OCN 109L. Weekly: 2 hrs lect, 1 hr disc. GE B.]

OCN 304. Resources of the Sea [3]. Nonliving resources of the ocean floor and water; distri- bution, origin, and exploitation of minerals; energy production from the ocean; environmental and political problems of ocean exploitation. [Weekly: 2 hrs lect, 1 hr disc. GE B.]

OCN 310. Biological Oceanography [4]. Physical, chemical, and biological factors characterizing the marine environment, including factors controlling plant and animal populations. Methods of sampling identification and analysis. [Pre-requisite: BIL 105 and either OCN 109 (if taken prior to fall 2015) or OCN 109 and OCN 109L. Weekly: 2 hrs lect, 6 hrs lab.]

OCN 320. Physical Oceanography [4]. Physical properties and processes in seas; theory of distribution of variables; current determination; waves and tides. [Pre-requisite: OCN 109 (if taken prior to fall 2015) or OCN 109 and OCN 109L. Weekly: 3 hrs lect, 3 hrs lab.]

OCN 330. Chemical Oceanography [4]. Composition of seawater: Distribution and cycling of important major and minor chemical species throughout the oceans. Marine analytical chemistry. [Pre-requisite: OCN 109 (if taken prior to fall 2015) or OCN 109 and OCN 109L and CHEM 110 or MATH 215 and PHYX 107 (C) or PHYX 210 (C) or PHYX 211 (C). Weekly: 2 hrs lect, 6 hrs lab.]

OCN 340. Geological Oceanography [4]. Classification/origin of major topographic features on ocean floor. First order plate tectonic theory. Recent marine sediments and sedimentary processes. [Pre-requisite: OCN 109 (if taken prior to fall 2015) or OCN 109 and OCN 109L. ECOL 109, MATH 101T or MATH 102; or IA. Weekly: 3 hrs lect, 3 hrs lab.]


OCN 410. Zooplankton Ecology [3]. Identification, distribution, abundance, adaptations, and life histories of animals in the plankton. Techniques in field/lab studies. [Pre-requisite: OCN 109 (if taken prior to fall 2015) or OCN 109 and OCN 109L. ECOL 109, MATH 101T or MATH 102; or IA. Weekly: 3 hrs lect, 3 hrs lab.]

OCN 420. Oceans & Climate [3]. Examines the role that oceans play in mediating global climate. Detailed exploration of ocean carbon cycle, consequences of climate change on ocean ecosystems, ocean-related climate feedback loops, and predictions of oceans of the future. [Pre-requisite: CHEM 107 or CHEM 109, MATH 105 or MATH 103, OCN 109 (if taken prior to fall 2015) or OCN 109 and OCN 109L. PHYX 107 or PHYX 109.]

OCN 485. Undergraduate Seminar [1]. Study literature to prepare oral scientific reports. [Pre-requisite: senior standing and at least one of the following: OCN 310, OCN 320, OCN 330, OCN 340, or IA.]

OCN 495. Field Cruise [3]. Develop a research proposal. Conduct research on extended cruise. Use oceanographic techniques and theory onboard ship. [Pre-requisite: oceanography major with junior standing or greater. Rep twice.]

OCN 496. Field Cruise II [2]. Process oceanographic samples and analyze research data. Prepare a final cruise report. [Pre-requisite: OCN 495.]

OCN 499. Directed Study [1-2]. Original research on assigned topic. Lab work, field work, or literature surveys. [Pre-requisite: senior oceano- graphy major and IA. Rep.]

Philosophy

Philosophy majors and minors must earn a minimum grade of “C” in all courses taken to fulfill the major/major requirements.

LOWER DIVISION

PHIL 100. Logic [3]. Study of correct reasoning. Sentential logic, informal fallacies, and certain paradigms of inductive reasoning. Nature of language, artificial and natural. [GE A.]


PHIL 106. Moral Controversies [3]. Major moral theories applied to contemporary issues, such as: environmental ethics, abortion, discrimination, world hunger; the death penalty, euthanasia, homosexuality, and same-sex marriage. [GE C.]

PHIL 107. Introduction to Philosophy [3]. Questions such as: What is knowledge? Is morality objective? Does God exist? What is beauty? Is there free will? [GE C.]

PHIL 180. Special Topics in Philosophy [1]. New courses. Guided study. [Rep; multiple enrollments in term.]

PHIL 198. Supplemental Instruction in Logic [1]. Collaborative work for students enrolled in PHIL 100 (Logic) [Co-requisite: PHIL 100. CR/- NC. Rep.]

UPPER DIVISION

PHIL 301. Reflections on the Arts [3]. Theories of art as they emphasize or suppress one or more dimensions of artistic creation and aesthetic experience: form, feeling, realism, fantasy. Judgments of taste, style, and excellence. [GE C.]


PHIL 303. Theories of Ethics [3]. Ethical theories of Western philosophical tradition: Plato, Aristotle, Hume, Kant, Mill. Contemporary metaethical concerns of definition and justification. [GE C.]

PHIL 304. Philosophy of Sex & Love [3]. Analysis of metaphysical and moral issues relating to sex and love, such as: What is love? What sexual activi-
ties are natural, moral, perversions? Friendship, adultery, pornography, prostitution, homosexuality, and same-sex marriage. [GE C.]

PHIL 308. Race, Racism & Philosophy (3). A philosophical study of the conceptual, metaphysic- al, moral, and social political issues surrounding race and racism. [DCG-d. GE C.]

PHIL 307. Philosophy of Law (3). Analyze various philosophical perspectives regarding topics such as: the nature of law and legal reasoning, the relationship between morality and law, theories of punishment, civil disobedience, and other relevant topics. [GE C or GE D.]

PHIL 309B. Perspectives: Humanities/Science/Social Science (3). Critique perspectives, modes of inquiry, and products of the humanities, biological and physical sciences, social and behavioral sciences, and their relationships. [GE B, GE C, GE D.]


PHIL 342. Descartes, Locke, Hume (3). Traces the development of the methodologies, episte- mologies, and metaphysics of the most influential thinkers of the Rationalist and Empiricist tradi- tions during the Renaissance and Enlightenment. [Rep once.]

PHIL 343. Kant and the 19th Century (3). Kant’s Critique of Pure Reason and two or more major thinkers from the 19th century, such as: Hegel, Marx, Nietzsche, Kierkegaard, James, Dewey. [Rep once.]


PHIL 346. Philosophies of India (3). Classic themes of Indian philosophy. Selections from Rig Veda, Upanishads, Bhagavad Gita, Buddhism, and Shankara. Compare to Western philosophies. India encountering multiculturalism from within and without.

PHIL 349. Latin American Philosophy (3). Surveys the historical development of philosophy in Latin America from the Pre-Colonial period to the present. Topics may include its development and uniqueness, and its relationship to colonialism and identity.

PHIL 355. Existentialism (3). Principal existential philosophers of 19th and 20th centuries, such as Kierkegaard, Heidegger, Nietzsche, Sartre, Marcel, Buber.

PHIL 371. Contemporary Social & Political Philosophy (3). A critical study of the main con- temporary Western theories of the ideal state and how these theories deal with such core political values as justice, liberty, equality, and community.

PHIL 391. Seminar in Philosophy (1-3). Intensive study of a philosophical movement, philosophical problem, writings of a philosopher, or a subdisci- pline (for example, philosophy of mind). [Elective credit for philosophy majors requires prior Depart- ment approval required. Rep.]

PHIL 392. Experiential or Service Learning (1). Participation in 12-24 hours of designated activity with a reading and discussion component. [CR/NC]

PHIL 415. Symbolic Logic (3). Quantifiable logic, including logic of relations; properties of axiomatic systems; many-valued logic; modal logic and its extensions. [Pre-requisite: PHIL 100 or IA.]

PHIL 420. Contemporary Epistemology & Metaphysics (3). What exists? What are the basic categories of being? What does it mean to know? Are there different kinds or sources of knowing? [Rec: PHIL 100.]


PHIL 480. Special Topics in Philosophy (1-3). Topics vary. [Rep.]

PHIL 485. Seminar in Philosophy (3). Intensive study of a philosophical movement, philosophical problem, writings of a philosopher, or a subdisci- pline (for example, philosophy of mind). [Rep. Two of these seminars required for philosophy majors.]

PHIL 499. Directed Study (1-2). [Rep.]

GRADUATE

PHIL 680. Special Topics (1-3). Intensive study in selected philosopher’s and/or topics. [Rep.]

Physical Education

Students injured while participating in a physical education or recreation administration class are not covered by any university insurance policy. Students are responsible for obtaining their own coverage through a private insurance agency or Student Health and Recreation Administration. [UC south lounge].

Students with disabilities are welcome in all physi- cal education activity courses.

AQUATICS

Note: Other aquatic offerings found under Recreation Administration.

PE 146. Fitness Swimming, Beginning (1). Cardiovascular swimming instruction and workouts for those with basic ability. Self-paced, aerobic lap swims with stroke instruction. [Rep.]

PE 224. Women’s Rowing, Beginning (1). De- signed for women interested in joining women’s intercollegiate crew team. The class will teach the basic mechanics of rowing.

PE 255. Water Polo (1). Instruction, competition. Techniques, strategies. [Pre-requisite: intermediate or advanced swim ability. Rep.]

PE 347. Master Swim (1-2). Aerobic and anaer-obic swimming workouts to improve competitive stroke techniques, speed, endurance, and cardio-vascular fitness. All four competitive strokes; work- out formats. [Pre-requisite: advanced ability. Rep.]

PE 360. Lifeguard Training (2). Professional techniques. American Red Cross certification. [Pre-requisite: advanced swimming ability. Weekly, 1 hr lect, 3 hrs lab.]

PE 382. Underwater Photography (3). Develop knowledge and skill to use still or video cameras safely while free diving or SCUBA diving. Emphasizes: safe diving practices; camera equipment selection, maintenance, and use. [Pre-requisite: REC 262 and REC 362.]


DANCE

Also see Theatre, Film, and Dance.


PE 194. Social Dance (1). Traditional social ball- room dances from the 1930s and 40s. Swing/ Jitterbug, Waltz, Polka, Foxtrot, Tango, and Cha Cha. [Rep.]


INDIVIDUAL ACTIVITIES

PE 112. Aikido, Beginning (1). Nonaggressive yet highly effective form of self-defense. Learn respect for self, others in a setting of diligent, cooperative training. [Rep.]

PE 113. Archery, Beginning (1). Open to all ability levels. Beginners taught bow and arrow techniques. Intermediate/advanced archers provided target time. [Rep.]


PE 118. Bowling (1). Fundamentals: scoring, etiquette, footwork. [Rep.]

PE 119. Fitness Fusion (1). Safe impact aerobic and strength exercise, a combination of the most popular fitness methods including rhythmic move- ment, functional fitness, strength/core training, yoga, and barefoot training. [Rep.]

PE 125. Fencing, Beginning (1). Fundamental techniques and principles of the art of personal combat with the sword. Emphasis on building a strong foundation of basic defensive skills, using
the foil as a training tool for the early 19th century dueling sword. [Rep.]


PE 129. Power Step [1]. Increase cardiovascular fitness and muscular strength and endurance through traditional aerobic dance steps along with a 4-8' high step. [Rep.]


PE 144. Stretch & Relaxation Techniques [1]. Loosen up, stretch out, and practice relaxation techniques. [Rep.]

PE 157. Weight Training, Individual, Beginning [1]. No scheduled hours; individualized weight program during open hours. [Rep.]


PE 253. Pilates [1]. Students will learn the Pilates method of controlled exercise to increase core strength, proper posture, coordination, balance, flexibility, and overall body awareness. Course designed for all levels of capability and age. [CR/NC. Rep.]

PE 259. Yoga [1]. Postures designed to increase flexibility, strength, awareness, relaxation. [Rep.]


PE 280. Special Topics [1-4]. New courses, workshops. [Rep.]

PE 289. Special Topics [1-3]. Activities. [Rep.]

INTERCOLLEGIATE ATHLETICS

PE 420. Intercollegiate Men’s Basketball [3]. [Rep up to a total of 6 intercollegiate athletic units.]

PE 421. Intercollegiate Women’s Basketball [3]. [Rep up to a total of 6 intercollegiate athletic units.]

PE 424. Intercollegiate Women’s Crew [3]. [Rep up to a total of 6 intercollegiate athletic units.]

PE 426. Intercollegiate Men’s/Women’s Cross Country [3]. [Rep up to a total of 6 intercollegiate athletic units.]

PE 432. Intercollegiate Football [3]. [Rep up to a total of 6 intercollegiate athletic units.]

PE 438. Intercollegiate Men’s/Women’s Soccer [3]. [Rep up to a total of 6 intercollegiate athletic units.]

PE 444. Intercollegiate Women’s Softball [3]. [Rep up to a total of 6 intercollegiate athletic units.]

PE 456. Intercollegiate Men’s/Women’s Track & Field [3]. [Rep up to a total of 6 intercollegiate athletic units.]

PE 463. Intercollegiate Women’s Volleyball [3]. [Rep up to a total of 6 intercollegiate athletic units.]

INTERCOLLEGIATE CLUB SPORTS

Participate in an organized athletic program while learning fundamental skills, game strategy, tactics, and sportsmanship. Participants are required to attend practice and encouraged to participate in games.

Please note: The above statement applies to all of the following Physical Education courses.

PE 261. Intercollegiate Club Climbing [2]. Rock wall climbing, skill building, and competition. [Rep.]


PE 314. Intercollegiate Club Cheer [2]. [Rep up to 6 intercollegiate units.]

PE 315. Intercollegiate Club Lacrosse, Men [2]. [Rep up to 6 intercollegiate units.]

PE 317. Intercollegiate Club Baseball [2]. [Rep up to 6 intercollegiate units.]

PE 318. Intercollegiate Club Rugby, Men [2]. [Rep up to 6 intercollegiate units.]

PE 319. Intercollegiate Club Rugby, Women [2]. [Rep up to 6 intercollegiate units.]

PE 320. Intercollegiate Club Crew, Men [2]. [Rep up to 6 intercollegiate units.]

PE 321. Intercollegiate Club Cycling [2]. [Rep up to 6 intercollegiate units.]

PE 322. Intercollegiate Club Volleyball, Men [2]. [Rep up to 6 intercollegiate units.]

PE 323. Intercollegiate Club Ultimate Frisbee, Men [2]. [Rep up to 6 intercollegiate units.]

PE 324. Intercollegiate Club Ultimate Frisbee, Women [2]. [Rep up to 6 intercollegiate units.]

PE 325. Intercollegiate Club Fencing [2]. [Rep up to 6 intercollegiate units.]

TEAM SPORTS

PE 116. Basketball [1]. Beginning skills and knowledge for playing organized basketball. Skill development drills; game situations. [Rep.]

PE 141. Soccer, Beginning [1]. Skills, strategies, tactics. [Rep.]

PE 151. Ultimate Frisbee, Beginning [1]. Disc throwing techniques; fundamentals of the game of ultimate. Develop game strategy through drills and playing. [Rep.]


PE 250. Intramural Activity [5-1]. Enhance psychomotor skills and fitness levels and make choices about lifetime leisure activities. [Rep up to 2 units.]

PE 251. Ultimate Frisbee, Intermediate [1]. For those with fundamental skills and knowledge of game. Drills; develop game strategy through playing. [Rep.]


Physics

Physics majors and minors must earn a minimum grade of C- in all physics courses.

LOWER DIVISION

PHYX 100. From Stars to Rocks: Being a Scientist in the 21st Century [3]. Introduction to the impact of astronomy, chemistry, physics, and geology on student life and society, practical aspects of the study of the disciplines and associated careers from different perspectives. [E-LD.]


PHYX 104S. Descriptive Astronomy [4]. Understand and appreciate astronomy/planet Earth. Methods of obtaining facts and formulating principles. Labs: naked-eye star/planet observation, movement of moon and celestial sphere, constellations, galaxies, star clusters, light and spectroscopy, telescopes. Lab will include service learning through providing workshops to students in K-12 schools and programs requiring two visits to local schools. For nonmajors. [Weekly: 3 hrs lect, 3 hrs lab/field trips. Pre-requisite: Math placement category I, II, or III. GE B.]


Stellar structure and evolution, including black
holes, white dwarfs, and neutron stars. Formation of
solar systems, celestial mechanics. Physics of
planetary interiors and atmospheres. Phenom-
enon and techniques of optical astronomy. [Pre-
requisite: PHYX 211. Weekly: 3 hrs lect, 3 hrs
lab. Offered alternate years.]

**UPPER DIVISION**

**PHYX 303. Life in the Universe [3]**. Scholarly
discussion of the probability that there are planets
with life elsewhere in the universe, starting from
current ideas about the origin and evolution of our
solar system and life. [Not intended for Physics
majors. GE B.]

**PHYX 304. Cosmos [4]**. Grand picture in as-
tronomy. Galaxies; general and special relativity;
quantum gravity; cosmology; birth, present struc-
ture, and death of stars. For nonmajors. [Weekly:
3 hrs lect, 2 hrs disc. GE B.]

**PHYX 310. Spacetime & Relativity [3]**. Einstein's
ideas on space-time curvature, geometry of space-
time, and physics of gravitational collapse. Offered
alternate years. [Pre-requisite: MATH 210; PHYX
320. Rec: MATH 241.]

**PHYX 315. Introduction to Electronics & Elec-
tronic Instrumentation [3]**. Devices and circuits,
both analog and digital, in science instrumentation.
Construct amplifiers and digital circuits. [Pre-
requisite: PHYX 211 with a grade of C or higher.
Weekly: 2 hrs lect, 3 hrs lab.]

**PHYX 316. Electronic Instrumentation & Con-
trol Systems [4]**. Design/build electronic
instruments. Direct interfacing of computers.
[Pre-requisite: PHYX 315. Weekly: 2 hrs lect, 6
hrs lab.]

**PHYX 320. Modern Physics [3]**. Atomic, solid
state, nuclear, and particle physics. [Pre-requisite:
PHYX 210. Weekly: 2 hrs lect, 3 hrs lab.]

**PHYX 324. Analytical Mechanics [4]**. Principles
and foundations of mechanics, from classical to
modern ideas. [Pre-requisite: PHYX 211; MATH
311 (C) or MATH 315 (C). MATH 313 (C).]

**PHYX 325. Thermal Physics [4]**. Elements of
classical and statistical thermodynamics. [Pre-
requisite: PHYX 320.]

**PHYX 340. Mathematical and Computational
Methods [2]**. Numerical, symbolic and graphical
programming and simulations, mathematical ap-
plications important to physicists. [Pre-requisite:
PHYX 211 (C).]

**PHYX 360. Physics of Stars & Planets [4]**. Stellar
structure and evolution, including black
holes, white dwarfs, and neutron stars. Formation
of solar systems, celestial mechanics. Physics of
planetary interiors and atmospheres. Phenom-
enon and techniques of optical astronomy. [Pre-
requisite: PHYX 211. Weekly: 3 hrs lect, 3 hrs
lab. Offered alternate years.]

**PHYX 361. Galaxies & Cosmology [4]**. Structure
and morphology of galaxies, active galactic nuclei,
and quasars; dynamics of galaxies; interstellar me-
dium; techniques of radio astronomy; the cosmic
distance ladder and the expanding universe; the
Big Bang. [Pre-requisite: PHYX 360.]

**PHYX 399. Supplemental Work in Physics [1-3]**.
Directed study. [Pre-requisite: IA. Rep.]

**PHYX 420. Optical Systems Design [4]**. Ge-
ometrical and physical theories. Gaussian optics,
interference, diffraction, polarization, lasers,
holography. Lab: design, set up, and test optical
systems; make holograms. Offered alternate
years. [Pre-requisite: PHYX 211 and MATH 241.
Weekly: 3 hrs lect, 3 hrs lab.]

**PHYX 430. Computerized Instrumentation
[3]**. Experiment with computer interfacing, data
acquisition, reduction. Assumes familiarity with
some computer language. Use IBM PCs and Turbo
Pascal. [Pre-requisite: PHYX 315. Weekly: 1 hr
lect, 6 hrs lab. Offered occasionally.]

**PHYX 441. Electricity & Magnetism I [3]**. Vec-
tor analysis, electrostatics, magnetostatics &
electrodynamics. [Pre-requisite: PHYX 340; MATH
313 (C). Rec: MATH 311 (C) or MATH 315 (C).]

**PHYX 442. Electricity & Magnetism II [3]**. Con-
servation laws, electromagnetic waves, potentials
& fields, radiation and relativity. [Pre-requisite:
PHYX 441.]

**PHYX 450. Quantum Physics I [4]**. Quantum
mechanics; introductory atomic physics. [Pre-
requisite: PHYX 320; MATH 313.]

**PHYX 451. Quantum Physics II [2]**. Selected
topics including: Identical Particles, Time-Indepen-
dent Perturbation Theory, The WKB Approxima-
tion and Scattering. [Pre-requisite: PHYX 450.]

**PHYX 462. Senior Lab [2]**. Experiments for sen-
or physics majors. Bridge gap between carefully
structured lower division lab experiences and truly
independent research and development. [Pre-
requisite: PHYX 315 and PHYX 320. Rep.]

**PHYX 480. Selected Topics in Physics for
Seniors [1-5]**. Offered as demand warrants. [Pre-
requisite: IA. Rep with different topics.]

**PHYX 484. Physics Seminar I [0.5]**. This is the
first of a two-semester sequence. Students are
expected to develop the skills necessary to
research, prepare and effectively deliver technical
presentations to an audience of peers. [Pre-
requisite: senior standing. CR/NC.]

**PHYX 485. Physics Seminar II [0.5]**. Seminar
presentations by physics majors, faculty, and
guest speakers. Capstone course. All physics
majors are encouraged to attend the seminars.
Only students with senior standing may enroll.
[Pre-requisite: PHYX 484; senior standing.]

**PHYX 490. Senior Thesis I [1-3]**. Based on
theoretical or experimental investigation. Consult
with department to choose subject. File approved
proposal with department prior to semester[s] in
which work will be done. [Pre-requisite: consent of
faculty member. Rep.]

**PHYX 491. Senior Thesis II [2]**. Continue senior
thesis project if more time required. [Pre-requisite:
PHYX 490. Rep.]

**PHYX 495. Undergraduate Research [1-3]**.
Individual investigation of selected problem. [Rep.
For students showing outstanding ability. Pre-
requisite: IA.]

**PHYX 499. Directed Study [1-3]**. Individual study
on selected problems. [Pre-requisite: IA. Rep.]

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**Political Science**

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**PSCI 104. People & Politics [3]**. Philosophical
and historical foundations of the concept of politi-
cal community. Contemporary issues confronting
people as members of the political community.
(GE D.)

**PSCI 110. American Government [3]**. Political
values, institutions, and patterns of influence in
law and governance, including relations among the
nation, tribes, and the state of California. Meets re-
quirement in “US Constitution and California state
and local government” established by legislature.

**PSCI 159. California Government [3]**. Political
process, institutions, governmental units. Current
problems and political controversies. Meets re-
quirement in “US Constitution and California state
and local government” established by legislature.

**PSCI 160. California Institutions [1]**. Political
process, institutions, governmental units in Cali-
ifornia. Current problems and political controver-
sies. Meets requirement in “California state and
local government” established by legislature.
[Pre-requisite: AP/CLEP exam or out-of-state
transfer credit that, although equivalent to a U.S.
government course, lacks the state’s California
government component. CR/NC.]

**PSCI 220. Introduction to Political Theory [3]**.
Key political concepts including freedom, equality,
justice, and democracy critically examined through
the writing of influential western thinkers from
Plato to present. Required for political science
majors.

**PSCI 230. Introduction to Comparative Politics
[3]**. Comparison of political institutions, parties,
elections, movements, policies, and issues of
countries other than the United States. Basic
concepts and methods of the subfield. Required
for political science majors.

**PSCI 235 / ANTH 235 / COMM 235 / CRGS
235 / SOC 235. Act to End Sexualized Violence
[1]**. Analyze how sexualized violence impacts com-
munities and operates as social control; learn
to recognize victim-blaming, promote survivor-
centered responses, foreground enthusiastic
consent, and take action to transform our campus
community. [CR/NC]
PSCI 240. Introduction to International Relations [3]. Examination of institutional, economic, security, and environmental relations between and among nations. Basic concepts, theory and methods of the subfield. Required for political science majors.

PSCI 280. Core Discussion Seminar [1]. This course is designed as a supplement to the core courses of the major (PSCI 220, PSCI 230, and PSCI 240). Format is seminar and discussion. Oral and writing skills included. [Need to take corresponding core course concurrently. Rep 3 times.]

PSCI 295. Political Research & Analysis [4]. Research and analysis skills, both qualitative and quantitative, of political science as a discipline.

UPPER DIVISION

PSCI 303. Third World Politics [3]. Examination of the politics of inequality and power in developing countries from historical, economic, social, cultural, and international perspectives. [DCGN-GE-D]

PSCI 306. Environmental Politics [3]. Examines issues, movements, and controversies at bioregional, national, and global levels. Analyzes the political decision-making process and implementation of environmental policy. [GE-D]

PSCI 306M. Environmental Politics – Majors Research Seminar [1]. Students will conduct independent research on environmental politics and present their findings. Course required for majors completing concentration in politics of environment and sustainability [Corequisite: PSCI 306.]


PSCI 317. Public Policy Process [4]. This course addresses the policy process and contemporary policy issues and at national and/or state level.

PSCI 323. Topics in Political Theory [4]. In-depth exploration of important concepts or movements in political thought. Topics vary; consult current class schedule. [Rep up to 8 units.]

PSCI 324/HIST 324. The Arab-Israeli Conflict: History, Narratives & Nationalism [4]. Traces the history and politics of the Arab-Israeli conflict from its earliest days. Examines events and narratives that shaped this longstanding conflict, while also analyzing U.S. involvement in it. [Sophomore standing or greater.]

PSCI 327. Radical Political Thought [4]. Critical examination of Marxism and other radical critiques of liberal democracy that have been influential over the past century.

PSCI 330. Political Regimes & Political Change [4]. Advanced study of comparative politics in regional context of Latin America, Africa, Europe, Middle East, or Asia. Topics vary; consult current class schedule. [Rep.]


PSCI 343. Global Governance [4]. Analysis of the processes and politics of global governance with an emphasis on nonstate actors, intergovernmental organizations, and international institutions.

PSCI 347. US Foreign Policy [4]. Theoretical approaches; major problems. Procedures, interests, purposes, and group pressures.

PSCI 350. U.S. National Politics [4]. This course addresses how the legislative, executive, and judicial branches operate and the current governing challenges facing the national government in the United States.

PSCI 352. Water Politics [4]. Water-related political and legal issues. Emphasis on conflict and cooperation in the distribution and allocation of water resources. May focus on local, state, regional, national and/or international issues.

PSCI 354. Media and Public Opinion [4]. This course focuses on how media and strategic communication shape public opinion and political outcome.

PSCI 358. Political Advocacy [4]. This course addresses the role of individual and group political actors such as interest groups, political parties, and social movements in the US political system and how each advocates for political change.

PSCI 360. Political Economy [4]. Examination of the politics of economic actors, decision making, policies, and issues at local, national and/or international levels. Focus may vary with instructor. [Rep with IA.]

PSCI 364. Technology & Development [4]. Political and social role of technology in Third World development. Relation to theories and concepts, such as science, democracy and inequality, and to actors, such as women and farmers.


PSCI 371. Experiential Workshop [1-4]. Participation in and reflection on academic or professional conferences or other experiential learning activities. [Rep.]

PSCI 373. Politics of Sustainability [4]. Examines diverse views of concepts such as democracy, liberty, justice, and nature as a response to political challenges of sustainability and unsustainability. Role of states, technology, markets, and culture.


PSCI 377. Model United Nations [1]. Delegate preparation for and participation in intercollegiate Model UN, emphasizing the art of lobbying, negotiation, bargaining, and international diplomacy. [Pre-req or coreq: PSCI 376. Rep twice.]

PSCI 3815. Community Leadership in Action [1]. Facilitate involvement in equity arcsana. Promote civic engagement, work towards racial equity in health, housing, education, and employment, and participate in creating a welcoming, safe, and inclusive campus and community for all. [Rep.]


PSCI 413. Moot Court [3]. Students will learn and prepare appellate arguments in two-person teams for hypothetical cases to be argued in front of the U.S. Supreme Court. [Pre-requisite: PSCI 410 or PSCI 412 and junior standing or greater.]

PSCI 441. International Law [4]. Its nature and substance. Legal history; cases, treaties, and other international documents.

PSCI 480. Seminar in Political Science [4]. Topics in political theory, international relations, American politics, or comparative politics. [Pre-requisite: upper division standing or IA. Rep with IA.]

PSCI 482. Internship [3]. Field observation; placement in a public or private nonprofit agency. [Pre-requisite: IA. Rep twice.]

PSCI 485. Capstone Seminar in Politics [4]. Seminar topic varies each semester. Format emphasizes critical analysis, class presentations, and a substantial research paper: Integration of concepts and skills from previous courses in the major. [Pre-requisite: PSCI 220, PSCI 230, PSCI 240, PSCI 295. Rep with IA.]

PSCI 491. Mentoring [1-4]. Advanced majors gain experience as teaching assistants working with a diverse body of students. [Pre-requisite: IA. Rep.]

PSCI 495. Field Research [1-4]. Field investigation of current phenomena, including issues and political behavior. [Rep with IA.]

PSCI 499. Directed Study [1-4]. Selected problems. [Open to advanced students with IA. Rep with IA.]
**GRADUATE**

**PSCI 680. Special Topics** (3). Intensive study of selected ideas, movements, policy, or institutions.

**PSCI 690. Master's Thesis** (1-6). For approved candidates for MA in social science wishing to pursue study in political science. [Department approval required. Rep.]

**PSCI 695. Field Research** (1-3). Field investigation of current phenomena, including issues and political behavior. [Rep with IA.]

**PSCI 699. Independent Study** (1-4). Selected problems. [Open to grad students with IA. Rep.]

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**UPPER DIVISION**

**PSYC 300. Psychology of Gender** (3). Explorations of research and theory regarding biological, individual, social, and cultural influences on the development and expression of gender; gender roles, and identity; also examines power and privilege. [DDG-d. GE D.]

**PSYC 302. Psychology of Prejudice** (3). How it is expressed, its causes, consequences, and approaches for reducing it. Multicultural and diversity issues. [DDG-d. GE D.]

**PSYC 303. Family Relations in Contemporary Society** (3). Psychological aspects. Dating, love, parent/child and couple relations; causes/effects of divorce; solutions to family difficulties. [GE D.]

**PSYC 304/BA 304. Business Psychology** (3). Critically examines the psychological foundation of business by looking at how business agents think, feel and act in various situations and how managers make decisions. [GE D.]

**PSYC 306. Health Psychology** (3). Examines the biological, social, cultural, and psychological factors (and their interactions) that contribute to health and wellness. Also examines evidence-based interventions for health promotion and behavior change. Prerequisite: junior standing or above. [GE D.]

**PSYC 311. Human Development** (3). Overview of developmental changes across the human life span: conception through adulthood. Relevant psychological theories, research literature. [Pre-requisite: PSYC 240 (C) or PSYC 242 (C)].

**PSYC 311D. Human Development Discussion** (2). Overview of developmental changes across the human life span: conception through adulthood. Relevant psychological theories, research literature. [Pre-requisite: PSYC 240 or PSYC 242.]

**PSYC 320. Behavior Analysis** (4). Experimental and applied analysis of behavior; behavior change processes, and practical applications in behavior modification and therapy. Structured observations and analysis of animal and human behavior. [Pre-requisite: PSYC 240 or PSYC 242. Weekly: 3 hrs lect, 2 hrs lab.]

**PSYC 321. Intro Behavioral Neuroscience** (3). How brain, spinal cord, peripheral nervous system, hormones, and genetics affect behavior. Biochemistry, neuroanatomy, and neurophysiology information supplied in class, so specific background in these subjects not required. [Pre-requisite: PSYC 104 with a grade of C- or higher]

**PSYC 324. Cognitive Psychology** (3). Acquisition, organization, use of knowledge. Attention, memory, problem solving, decision making, language, consciousness. [Pre-requisite: PSYC 240 (C) or PSYC 242 (C)].


**PSYC 325 / ZOOL 325. Advanced Behavioral Neuroscience** (4). Principles of behavioral neuroscience are reviewed, and then selected topics are covered in detail through lectures and reading original research articles. Required labs provide hands-on experience. [Pre-requisite: PSYC 242 and PSYC 321] or BIOL 350 or ZOOL 310. Weekly: 3 hrs lect, 2 hrs lab.]

**PSYC 335. Social Psychology** (3). Examines how people's cognitions, attitudes, and behaviors are influenced by the actual, imagined, or implied presence of others; focus on group processes, intergroup relations, culture, and socialization. [Pre-requisite: PSYC 240 or PSYC 242.]

**PSYC 335D. Social Psychology Discussion** (2). Supplemental course for social psychology which explores social psychological literature in more depth; focuses on survey and research design and presentation of empirical findings. [Pre-requisite: PSYC 242 (C) and PSYC 335 (C). Rep twice.]

**PSYC 336. Social Influence & Persuasion** (3). Examines the processes involved in social change, persuasion and true persuasion, and compliance, by focusing on the role of both the collective and the individual; exploration of theories and research. [Pre-requisite: PSYC 104 with a grade of C- or higher.]

**PSYC 337. Personality Theory & Research** (3). Psychoanalytic, behaviorism, humanistic psychology. Research implications, practical application, critical evaluation. [Pre-requisite: PSYC 240 or PSYC 242.]

**PSYC 337D. Personality Theory & Research Discussion** (2). Students discuss findings and theories of personality psychology, as well as design and present their own research projects in this area. In-depth focus on approaches to research in personality. [Pre-requisite: PSYC 242 and PSYC 337 (C)].

**PSYC 345L. Psychological Tests & Measurement** (4). Principles of applied psychological measurement, including item analysis, reliability, validity, and test construction; ethical issues in the use of psychological tests, and procedures for the evaluation of psychological measures. Course includes an applied lab in the construction of psychological measures. [Pre-requisite: PSYC 240 (C) or PSYC 242 (C). with a grade of C- or higher: Weekly: 3 hrs lect, 2 hrs lab.]}

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**LOWER DIVISION**

**PSYC 100. Psychology of Critical Thinking** (3). Examines logical errors and cognitive distortions; analysis of argument and persuasion techniques; how to evaluate the reliability of information sources; development of critical thinking and scientific reasoning regarding human behavior. [GE A.]

**PSYC 104. Introduction to Psychology** (3). Overview of core content such as neuroscience, learning, human development, research methods, psychological disorders/treatments, social influences on behavior. Participation in research studies required. Prerequisite for all other PSYC courses. [GE D.]


**PSYC 240. Understanding Research Methods in Psychology** (3). This course provides an overview of research methods [descriptive, correlational, experimental] used in psychology, and focuses on increasing student understanding of published research. APA style for writing papers is presented. [Pre-requisite: PSYC 104 with a grade of C- or higher.]

**PSYC 241. Introduction to Psychological Statistics** (4). Descriptive/inferential methods for analyzing data. Descriptive statistics; normal distributions; elementary probability; bivariate correlation and regression; hypothesis testing for comparing independent and paired groups. Labs: computer statistical programs, problem solving. [Weekly: 3 hrs lect, 2 hrs lab. Pre-requisite: Math placement category I, II or III.]

**PSYC 242. Introduction to Psychological Research Design & Methodology** (4). Hypothesis development, data gathering, ethics, interpretation of findings. Department recommends taking this before upper division PSYC courses. [Pre-requisite: PSYC 104 with a C- or higher and (PSYC 241 or STAT 108 or STAT 108I or STAT 109) and (ENGL 103 or ENGL 104 or ENGL 104S). Weekly: 3 hrs lect, 2 hrs activ.]

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DGG diversity & common ground; d domestic; n non-domestic; GE general ed; IA instructor approval; lect lecture; preq prerequisite; rec recommended preparation; rep repeatable for credit

2021-2022 Humboldt State University Catalog
PSYC 414. Psychology of Adolescence & Young Adulthood [3]. Physical, cognitive, social, and emotional development. Personality, relationship, education, and work issues from developmental perspective. [Pre-requisite: PSYC 311 (C) or IA.]

PSYC 415. Psychology of Aging & Older Adulthood [3]. Covers changing U.S. demographics, how biological, social, and cultural contexts interact to influence the behavior of older adults (ages 65+). Theories of aging and longevity, and psychopathology. [Pre-requisite: PSYC 242(C) or PSYC 242(C).]

PSYC 418. Developmental Psychopathology [3]. Developmental, social, behavioral, and emotional problems of children and adolescents are explored in relation to normal developmental milestones. Introduction to theories and research in the field of developmental psychopathology. [Pre-requisite: PSYC 311 (C) or IA.]

PSYC 419/WS 419. Family Violence [3]. Explores forms of family violence including domestic violence, child abuse, elder abuse, and animal cruelty. Theories explaining physical, sexual, and emotional violence, as well as successful prevention and intervention programs. [Pre-requisite: PSYC 104 with a grade of C- or higher; CR/NC mandatory credit/no credit: DA dept approval; disc discussion required.]


PSYC 445. Interviewing & Counseling Techniques [3]. Discuss different theoretical & evidence-based approaches to counseling with supervised practice, including video feedback sessions. [Pre-requisite: upper division PSYC major or IA.]

PSYC 473. Substance Use & Addiction [3]. Why people use and misuse drugs. Biological, psychological, social, and therapeutic aspects. [Pre-requisite: PSYC 247 or PSYC 578. Analysis of Variance [4]. Topics include between and within subjects ANOVA, mixed model ANOVA, and test assumptions. [Pre-requisite: PSYC 241 or equivalent. Weekly: 3 hrs lect, 2 hrs lab.]

PSYC 480. Selected Topics in Psychology [5-3]. Topic/problem from theoretical, experimental, or applied psychology. [Pre-requisite: PSYC 104. Rep for different topics.]

PSYC 482. Field Study [1-4]. Propose work in selected community settings. Obtain supervision and receive credit. Periodic practicum conferences required. [Pre-requisite: IA. Weekly: 3 hrs per unit of credit. CR/NC. Rep.]

PSYC 485. Senior Seminar [3]. Integrative review of psychology focusing on the history of the field or a broad issue within the discipline. Format emphasizes class discussion, oral presentation, and written reports. A capstone experience. [Pre-requisite: PSYC 104 with a grade of C- or higher; senior standing. Must be taken during final year of coursework or IA.]

PSYC 486. History & Systems of Psychology [3]. History of psychology explored through a multidisciplinary lens, focusing on the evolution of science and thought in diverse cultures in relation to other sciences; research methods; interpretation of empirical data. [Pre-requisite: PSYC 240 with a grade of C- or higher.]

PSYC 487. Evolutionary Psychology [3]. A general overview of how human behavior and psychology has been shaped by natural selection through eons of evolution. [Pre-requisite: PSYC 321 (C) or PSYC 325 (C) or BIOL 105 (C); all with grades of C- or higher; Rep.]

PSYC 488.-regression/Multivariate Topics [4]. Topics include multiple regression, moderated regression, logistic regression, time series, and factor analysis. [Pre-requisite: PSYC 241. Weekly: 3 hrs lect, 2 hrs lab.]

PSYC 489S. Community Psychology [3]. Overview of ecological, multicultural, and intersectional theories in understanding applied psychology with a focus on community interventions. This course includes a service placement at a local community organization. [Pre-requisite: PSYC 240 or PSYC 242. Junior standing or greater.]

PSYC 490. Senior Honors Thesis [3]. Advanced majors design a cumulating experience that involves independent research while working under the supervision of a faculty member. [Rep once.]


PSYC 496. Psychology Research Seminar [3]. Research problem culminates in written report in accord with APA standards. Required student/faculty group meetings to discuss common research problems, such as subject selection, psychological measurement, interpretation of results, ethics of research. [Rep.]

PSYC 497. Mentoring [1-3]. Advanced majors gain experience as mentors working with a diverse body of students. Learn and participate in pedagogical theory and processes as applied to university level classes. [Pre-requisite: IA. CR/NC. Rep.]

PSYC 499. Independent Study [1-3]. On a tutorial basis, pursue area of interest not covered by regular course offerings. [Pre-requisite: six upper division units in psychology and IA. Rep.]

PSYC 511. Advanced Social Neuroscience [3]. Covers biological and evolutionary mechanisms of social behavior; social neuroscience research methods, and neurophilosophy. Knowledge and skills development evaluated with exams, assignments, and presentations. Meets and synergizes with undergraduate section. Recommended preparation: PSYC 355. [Pre-requisites: (PSYC 240 or PSYC 242) and PSYC 351.]

PSYC 518. Advanced Developmental Psychopathology [3]. Advanced coverage of psychological problems in children and adolescents with particular focus on evidence-based practices. Contemporaneous research on assessment, treatment, prevention, and intervention are key areas of exploration. [Pre-requisite: PSYC 242 or equivalent and PSYC 311 or equivalent, all with grades of C or higher.]

PSYC 545. Psychological Testing [4]. Testing concepts: reliability, validity, standardization, and score interpretation. Apply to current standardized tests of intelligence, aptitude, achievement, personality. [Pre-requisite: PSYC 241 or IA. Weekly: 3 hrs lect, 2 hrs lab.]

PSYC 550. Introduction to Institutional Research [4]. This course is an introduction into the field of Institutional Research. It is for students who wish to pursue or explore an IR career. [Pre-requisite: graduate standing, SOC 583 (C) or PSYC 641 (C) or IA.]

PSYC 551. Applied Research [4]. This course will emphasize research methodology that is relevant to the field of IR. [Pre-requisite: graduate standing, PSYC 550.]

PSYC 552. Diversity in Research [4]. This course will emphasize primary data collection that is relevant to the field of IR. [Pre-requisite: graduate standing, PSYC 551.]

PSYC 578 / PSYC 478. Analysis of Variance [4]. Topics include between and within subjects ANOVA, mixed model ANOVA, and test assumptions. [Pre-requisite: PSYC 241 or equivalent. Weekly: 3 hrs lect, 2 hrs lab.]

PSYC 588 / PSYC 488. Regression/Multivariate Topics [4]. Topics include multiple regression, moderated regression, logistic regression, time series, and factor analysis. [Pre-requisite: PSYC 241. Weekly: 3 hrs lect, 2 hrs lab.]


PSYC 606. Educational Foundations/School Psychology [2]. Orientation to schooling, and the practice of school psychology. Focus on understanding professional roles, curriculum and standards, school environments (social and political), needs of students from diverse backgrounds, sustainability-focused; sustainability-related; activity; (C) may be concurrent; coreq corequisite(s); CR/NC mandatory credit/no credit: DA dept approval; disc discussion required. 280 Psychology 2021-2022 Humboldt State University Catalog
working with parents. [Pre-requisite: good standing in School Psychology program. Co-requisite: PSYC 783.]

PSYC 607. Consultation/Collaboration [2]. Small group seminar to assist graduate students acquire professional skills related to the practice of school psychology. Emphasis on theories and methods of consultation, collaboration and indirect service delivery in schools. [Pre-requisite: PSYC 606 and good standing in School Psychology program. Co-requisite: PSYC 783.]


PSYC 622. Advanced Learning & Behavior Analysis [3]. A natural science approach to the assessment and treatment of behavior. The concepts, principles, and procedures of behavior analysis will be reviewed, along with the application of those principles to socially significant problems. Data collection strategies, methodologies to systematically evaluate behavior, and practical considerations when implementing treatments will be discussed. [Pre-requisite: PSYC 322 and graduate standing. Repeatable twice.]

PSYC 625. Advanced Psychobiology [3]. Empirical/theoretical approaches to topics in brain research and other physiological, neurological, or biochemical processes at the base of human behavior. Topics vary. [Pre-requisite: PSYC 322 or IA. Rep twice.]

PSYC 632. Advanced Developmental Psychology [3]. Uses primary sources in a discussion based format to examine the evolution of the field as well as current trends and controversies in developmental theories and research across the lifespan. [PSYC 311 with grade of C+ or better. Rep twice.]


PSYC 636. Sexuality Counseling [1]. Psychological, physical, social, and clinical aspects of human sexuality designed to meet California state requirements for licensure as an MFT. [Pre-requisite: good standing in Counseling Psychology or School Psychology program, or IA.]

PSYC 638. Diagnosis of Mental Disorders [3]. Major diagnoses of psychological disorders, strengths and weaknesses of diagnostic systems, research on origin and course of pathological outcomes, and strategies for identifying, diagnosing, and formulating treatment of psychological disorders. [Pre-requisite: good standing in Psychology M.A. Counseling Psychology or Academic Research Concentrations. Repeatable twice.]

PSYC 640. Aging & Long-Term Care [1]. Biological, social, cognitive, and psychological aspects of aging including long-term care, end of life, and grief. [Pre-requisite: good standing in Psychology M.A. Counseling Psychology or Academic Research Concentrations. Repeatable one time.]

PSYC 641. Research Methods: Philosophy & Design [3]. Epistemological foundations of research methods applicable to experimental clinical/counseling, and applied psychology. Practical research problems: design, sampling, and control. [Pre-requisite: PSYC 241 and PSYC 242.]


PSYC 647. Academic Research Proseminar [3]. This course provides graduate students with a critical discussion of professional development issues, and the foundations of behavioral research and methods used in psychology. [Pre-requisite: admission to AR M.A., or IA.]


PSYC 656. Couples Therapy [3]. Introduction to marital/couple therapy: major theories of relationship counseling and therapy, assessment techniques, domestic violence, ethics. Emphasis on experiential learning and demonstration of marital/couple counseling. [Pre-requisite: PSYC 654 (3) and good standing in Counseling Psychology program, or IA.]

PSYC 657. Group Counseling & Group Psychotherapy [3]. Theories and principles in group counseling. Development group therapy leadership skills. [Pre-requisite: good standing in Psychology M.A. Counseling Psychology Concentration, or IA. Weekly: 3 hours lecture.]

PSYC 658. Theories of Individual Counseling & Psychotherapy [3]. Introduction to major theories in counseling. Focus on theory, application of techniques to clinical practice, and empirical validation. [Pre-requisite: graduate standing.]

PSYC 659. Mental Health in K-12 Schools [3]. Theories and methods for development of mental health interventions for children in school settings. Primary prevention, collaboration with social service agencies, state and federal legal mandates, mental health financing. [Pre-requisite: PSYC 654 with a grade of B- or higher, PSYC 783 (C), good standing in School Psychology program; or IA.]

PSYC 660. Law & Ethics in Psychology [3]. Ethics and California law applicable to the counseling profession. [Pre-requisite: admitted to Counseling Psychology program, or IA.]

PSYC 662. Practicum Preparation [1]. Seminar approach to various clinical issues regarding practicum placement. May include case study, skill enhancement exercises. [Pre-requisite: good standing in Counseling Psychology program, or IA. Rep.]

PSYC 663. Licensed Supervision [1]. Two hrs of group clinical supervision (or 1 hr individually) by a licensed professional for up to 5 client contact hrs per week. Additional contact hrs need an additional unit of supervision. [Pre-requisite: good standing in Counseling Psychology program and at least one semester of full-time coursework. Co-requisite: PSYC 682.]

PSYC 664. Assessment & Testing for Psychotherapists [3]. Overview of formal psychological testing and assessment, administering tests within the boundaries of competence, and writing psychological assessment reports. [Pre-requisite: graduate standing.]
PSYC 672. Psychopathology [3]. This course will focus on the clinical application of psychotropic medications in the treatment of psychiatric disorders. Pharmacodynamics and pharmokinetics of all major classes of medications will be covered. [Pre-requisite: PSYC 321 and PSYC 325, or IA. Student must be admitted to graduate program in Counseling Psychology or Academic Research or School Psychology to enroll in PSYC 672.]

PSYC 673. Mental Health Addiction & Recovery [3]. Overview of drug abuse and co-occurring disorders including assessment, prevention, treatment, recovery, and social-cultural dimensions. [Pre-requisite: graduate standing. Repeatable once.]

PSYC 674. Philosophy of Behaviorism [3]. Students read a sample of B.F. Skinner’s writings, including those that were important in providing the theoretical and conceptual foundations of radical behaviorism, and writings by other authors discussing theoretical issues surrounding this approach. [Pre-requisites: graduate standing.]

PSYC 675. Single-Case Research Design [3]. Students will be introduced to single-case research designs, a methodological approach that permits experimental investigation with one subject, and compliments more commonly used between-group design strategies. [Pre-requisite: senior or graduate standing.]

PSYC 676. Multicultural Counseling [3]. Training in theories, research and counseling strategies in multicultural psychology. Development of multicultural counseling skills, including self-awareness and the impact of bias, oppression and privilege on mental health and counseling. [Pre-requisite: PSYC 654 (C) and good standing in a psychology MA program.]

PSYC 680. Selected Topics in Contemporary Psychology [5-3]. Recent literature. Read, critique, present in class. [Pre-requisite: IA. Rep twice with different topics.]

PSYC 682. Fieldwork [1-6]. Supervised practicum experience in specific settings to meet CA PPS requirements. [Pre-requisite: admission to Counseling Psychology program or IA.]

PSYC 683. Graduate Teaching Assistantship [1-4]. Students planning a teaching career co-teach a college course with faculty observation and guidance. [Pre-requisite: PSYC 683 with a grade of B- or higher and IA.]

PSYC 684. Graduate Teaching Internship [1-6]. Students planning a teaching career co-teach a college course with faculty observation and guidance. [Pre-requisite: PSYC 683 with a grade of B- or higher and IA.]

PSYC 690. Thesis [1-6]. Guided investigation of research problem culminates in formal report in compliance with HSU standards. [Pre-requisite: grad standing and IA.]

PSYC 691. Comprehensive Exam for Counselors [0]. Students have the option of taking the comprehensive exam or completing a thesis. The exam will consist of multiple choice and essay questions that cover the 10 major domains of the M.A. in Psychology. Counseling program. [Rep once.]

PSYC 692. School Psychology Portfolio Project [1-3]. School psychology portfolio constructed under supervision of program faculty. Formative evaluation during training, summative evaluation prior to earning M.A. degree. [Pre-requisite: PSYC 641, PSYC 642 (C), consent of School Psychology Committee.]

PSYC 693. Comprehensive Exam: School Psychology [0]. Comprehensive exam for the master's degree in school psychology. [Req: Completion of 66 units of approved graduate program coursework in school psychology. CR/NC. Rep one.]

PSYC 694. Independent Study [1-6]. On a tutorial basis, pursue area of interest not covered by regular course offerings. [Weekly: 3 hrs per unit. Credit: Pre-requisite: IA.]

PSYC 695. Research Practicum [1-6]. Research under direction of staff on a tutorial basis. Group meetings to communicate findings of independent study. [Pre-requisite: 6 units of grad psychology and IA.]

PSYC 697. Academic Advisement [1-4]. After training, students in academic research MA program advise psychology and undeclared undergraduate majors. [Pre-requisite: approval of grad coordinator and instructor.]


PSYC 784. School Psychology Internship [6-12]. Culumnating professional experience required to earn a California Credential authorizing practice as a School Psychologist. Designed to meet California and National standards for supervised experience in School Psychology. Supervision by HSU faculty and district employed school psychologists. [Pre-requisite: MA in psychology with Internship Credential issued by the California Commission on Teacher Credentialing. Units must be completed within 2 calendar years. Rep to 24 units.]

**Rangeland Resource Science**

**UPPER DIVISION**

**RRS 306. Wildland Resource Principles [3].** Analysis of rangeland biophysical communities; management for sustainable human and environmental values; use by wild and domestic animals; historical and legal changes in rangeland management. [GE B.]

**RRS 360. Wildland Plant Communities [3].** Delineation and synecology of important North American rangelands. Plant identification of important grasses, forbs, and shrubs. [Pre-requisite: BOT 350 (C) or IA. Weekly: 2 hrs lect, 3 hrs lab.]

**RRS 370. Wildland Ecology Principles [3].** Interplay of ecological principles with species composition, distribution, disturbance responses, and management of grassland, woodland, and shrubland communities. [Pre-requisite: RRS 306 or IA.]

**RRS 375. Vegetation Analysis & Health [3].** Vegetation and wildland health monitoring and analysis procedures. Observe and evaluate vegetation organization & structure. Interpret distinct ecological sites. Field demonstration and analytical work. [Pre-requisite: RRS 306, and STAT 103 or equivalent.]

**RRS 400. Introduction to Animal Science [3].** Characteristics, physiology, adaptation, and improvements of livestock breeds, animal welfare, feeding, grazing, and marketing. [Pre-requisite: BIOL 105 or ZOOL 110, or IA. Weekly: two 1-hr lects, 3 hrs lab.]

**RRS 430. Wildland Restoration & Development [3].** Treatments, developments, and structures to improve rangeland ecosystems, services, and function. Ecological principles in ecosystem management and restoration. [Pre-requisite: RRS 306 or WLDF 301. Weekly: 2 hrs lect, 3 hrs lab/field trip.]

**RRS 460. Rangeland & Ranch Planning [3].** Develop management plan for livestock operation, resource management area, or federal rangeland allotment. Analyze economic programs including conservation easements and incentives, physical and biotic resources. [Pre-requisite: RRS 420 and RRS 430. Field trips substitute for scheduled lab time. Weekly: 1 hr lect, 6 hrs lab.]

**RRS 475. Advanced Study of Rangeland Plants [1].** Identification and importance of range plants based on specialized morphological characteristics. HSU range-plant judging team selected from class. [CR/NC. Pre-requisite: BOT 350, BOT 354, RRS 360, or IA.]

**RRS 492. Senior Project [3].** Independent research which will include fieldwork and completion of a scientific paper. [Pre-requisite: senior standing.]

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**Rangeland Resource Science**

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<th>Sustainability-focused</th>
<th>Sustainability-related</th>
<th>Activity (CR/NC: mandatory credit/no credit)</th>
<th>DA dept approval</th>
<th>Disc. Discussion</th>
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Rec 330. Adventure Theory & Practice (3). Leadership and facilitation skills, participant assessment considerations, instructional techniques, management considerations, and risk management practices for outdoor and adventure programming.

Rec 335. Tourism Planning and Development (3). Examines positive and negative tourism impacts, growth management, strategies and planning principles. Includes the development and implementation of tourism programs. [Weekly: 2 hrs lect, 3 hrs lab.]

Rec 345. Environmental Education (3). Experiential based course where students will develop and implement environmental education and outdoor recreation programs. Students will also assist in the administration of an environmental education center.

Rec 362. Master Diver (4). NAUI Master Scuba Diver certification upon successful completion of course. Diver rescue, deep diving, night diving, search and recovery, altitude diving, navigational techniques, and introduction to scientific diving. [Pre-requisite: REC 252, SCUBA gear required.]

Rec 365. Travel Industry Management (3). This is a conceptual and experiential course that provides an overview of hospitality management, meeting and convention planning, travel modes and methods, and destination marketing.

Rec 370. Outdoor Leadership Foundations (3). Technical, educational, and human knowledge and skills necessary to lead outdoor adventure programs. Focus is on planning and delivering of backpacking skills in a group setting, minimum impact practices and safety implementations in a professional environment. [Pre-requisite: Recreation Administration major; all other majors require Instructor Approval.]

Rec 375. Winter Wilderness Living (2). Introduction to technical, educational, and human knowledge, and skills needed to safely practice and deliver overnight winter adventure recreation activities. Focus is on minimal impact practices and professional industry standards. [Pre-requisite: REC 370 (CI).]

Rec 383. Rescue Diver (3). Emergency management of diving accidents; diver rescues; first aid for diving injuries. Qualify for HSU/NAUI leadership levels. [Pre-requisite: REC 362.]

Rec 410. Healthy Communities through Recreation (3). An examination of public, private, non-profit, and community recreation programs and their effect on community health. Focus on healthy policies, built environment, natural spaces, leisure, equity, and integration of recreation and population health approaches. [Recreation administration majors. Rec: REC 210, REC 220 and REC 302.]

Rec 415. Leisure and Aging (3). This class will prepare students to design leisure programs and settings for older adults that are grounded in social theory, research, and best practice. [Rec: REC 302. Recreation administration majors.]

Rec 420. Legal & Financial Aspects of Recreation (3). Legal aspects and the many financial involvements of conducting a recreation program.

Rec 430. Outdoor Leadership Expedition (4). Advanced principles and applications of outdoor leadership skills and knowledge focused on planning and leading expeditions in an adventure education setting, including logistics, risk management, debriefing, environmental ethics, and educational delivery. Students are expected to participate in multiple consecutive field days as part of this class. Recommended preparation: REC 330 and REC 375. [Pre-requisite: REC 370.]

Rec 435. Sustainable Tourism (3). This course examines the environment, economic, and socio-cultural aspects of tourism development, including best practices to maintain long-term sustainability in outgoing and incoming tourism.

Rec 455. Internship & Career Preparation Workshop (1). Plan and prepare for internship and career in recreation administration. Analyze career placement opportunities, self-exploration, resume construction, interview methods, e-portfolios, and internship. Program and requirements. [Pre-requisite: Junior standing or greater and completion of a minimum of 15 units REC coursework, or IA.]

Rec 471. Scientific Diving (3). Development of the knowledge, skill, and experience to successfully plan and conduct underwater data collection. This course meets the standards of the American Academy of Underwater Sciences. [Pre-requisite: REC 362.]

Rec 472. Leadership Diving: Assistant Instructor (4). Rescue-certified divers develop knowledge and skills to assist in supervising and training divers. Course exceeds National Association of Underwater Instructors (NAUI) certification requirements.

Rec 480. Special Topics (1-3). Topics as demand warrants. [Lect./lab as appropriate. Rep with different topics.]

Rec 480L. Special Topics Laboratory (1). Laboratory offering of recreation/leisure topics as demand warrants. [Rep with different topics.]

Rec 481. Recreation Practicum (3). Application of principles of recreation management and leadership in a community agency. [Pre-requisite: Sophomore standing or above. Recreation Administration majors. CR/NC]

Rec 482. Internship in Recreation (1-6). Supervised experience. Apply academic understanding to a functioning recreational agency. [Pre-requisite: REC 210, REC 220, REC 302, REC 320, REC 420, REC 455; senior standing; Recreation Administration majors. Rep up to 6 units.]

Rec 485. Senior Seminar — Majors (2). Senior majors apply knowledge/skills to professional problems. Specific professional development projects. [Pre-requisite: REC 210, REC 220, REC 302, REC 320, REC 420, or IA.]

Rec 495. Directed Field Experience (1-6). Under supervision of HSU staff. [Pre-requisite: IA and junior/senior standing. Rep.]
Religious Studies

LOWER DIVISION

RS 104. Asian Religions: Exploring Buddhism (3). Introduction to Asian religions including how the life of Buddha impacted India, Tibet, China, Japan, and California. Myths, symbols, and rituals are included from Theravada, Mahayana, Vajrayana, and Zen. [LD-C.]

RS 105. World Religions (3). Examines six of the following traditions in light of human quest for transcendence: Hinduism, Buddhism, Confucianism, Taoism, Shintoism, Zen, Judaism, Christianity, and Islam. Films augment lectures. [DCG-n. GE C.]

RS 120. Exploring Religion (3). Introduction to theory and method in the study of religion; examines religious elements, including such topics as faith, sacred time and space, ritual, tradition, devotion, meditation, and new religious movements.

UPPER DIVISION

RS 300. Living Myths (3). Examines how a culture’s “sacred stories” express worldview, guide behavior, and empower personal quests for meaning. Sections offered under the following themes: War and Peace, Quest for Self, Beyond the Hero. [GE C.]

RS 301. Religion in America (3). Surveys American religious diversity exploring the formative role played by religion in American identity, values, and experience, including critical topical issues from politics, sexuality, environment, education, terrorism etc. [DCG-d. GE C.]

RS 304. Cultural & Religious Heritage of Africa (3). Study the cultural heritage of Africa through the themes of religion (traditional, Islam, Christianity), arts (music, dance, drums, cultural access), multilingualism, language, cultural identity, and the oral tradition. [Pre-requisite: completion of lower division general education, DCG-n. GE C.]

RS 305/HIST 306. Gods & Kings in the Ancient Near East (4). History of the ancient cultures (Mesopotamian, Egyptian, Hebrew, Persian, Mycenaean) that provided the foundations for the emergence of classical western civilization including writing, kings, myths, states, laws, and monotheism. [UD-D.]


RS 322. Sacred Texts: Buddhist Texts (4). Survey folk tales, philosophical treatises, poetry, sermons, and scriptures from early Buddhism to Zen. Attention to canon, genre, transmission, translation, hermeneutics, cultural transformation, function, message, and aesthetics.

RS 323. Sacred Texts: Hindu Texts (4). Indian literature ancient and modern; the Vedas, mythic visions, lives of saints, poetry, epics, philosophers, yogis, devotees, folk tales, and modern writers, such as Rushdie, Jhabvala, and Narayan.


RS 331. Introduction to Christianity (3). Doctrinal developments; literature, rites and rituals; history (including development of major branches). Issues of modernity and postmodernity (could include feminist perspectives, interreligious dialog).

RS 332. Introduction to Islam (3). Beliefs, institutions, sacred literature, history. Life of Muhammad, development of tradition in classical period, issues in modernity.

RS 340. Zen, Dharma & Tao (3). Confucianism, Taoism, Shinto, and major forms of Buddhism in China and Japan. [DCG-n.]

RS 341. Spiritual Traditions of India (3). In this course, exploration of images, temples, myth, poetry, meditation, devotion, and philosophy are woven together in a multidimensional approach to the exquisite spiritual traditions of Hinduism, Jainism, and Sikhism.

RS 342. Buddhism in India and Tibet (3). The development of Buddhism in India and its transformation in Tibet, from the original Buddha to the Dalai Lamas with attention to diverse spiritual instincts of mystics, devotees, and philosophers.

RS 345. Tai Chi Ch’uan (Taijiqian) (3). Learn detailed movements of Taiji form. Emphasis: conceptuality as encoded in body movement and form. Readings from Chinese classics, with focus on how direct awareness influences textural understanding. [CR/NC.]


RS 362. Wisdom and Craft (3). How persons communicate their spiritual wisdom, their awareness of living connectedness and place in the cosmos, through everyday tasks of creating creative work. Compare/contrast traditions (Amish, Navaho, Shaker, etc.).

RS 364. Cinema and the Sacred (3). Studies “Movies” treatment of religion in their themes, content, and mythological underpinnings, and religious phenomenon through cult films, screen idols, and theatre as modern mythological temple.


RS 391. Religion in Tradition: Special Topics (3). Topics within religious tradition[s] with thematic focus or tradition overview. [Rep with different topics.]

RS 392. Sacred Literature: Special Topics (3). Survey selected works of sacred literature in Eastern or Western religious traditions. [Rep with different topics.]

RS 393. Religion in Myth, Culture & Experience: Special Topics (3). Thematic and/or comparative examination. [Rep with different topics.]


RS 395. Senior Seminar (3). Capstone for major. Professor determines thematic focus. Culminating project applies research skills, critical and experiential reflection, and methodologies within the discipline. [Pre-requisite: completed 27 units required for the major]

RS 399. Directed Study (1-3). Independent study of topic under supervision. Provides depth to specific area of student’s development. [Rep.]

Science

LOWER DIVISION

SCI 100. Becoming a STEM Professional in the 21st Century (3). This course provides an introduction to the academic skills of a student in STEM, an introduction to the practical aspects of these disciplines, and their role in our multicultural society [CNRS majors. E-LD.]

UPPER DIVISION

SCI 331. Fundamental Science Concepts for Elementary Education (3). Fundamental principles in physical science with an emphasis on building conceptual understanding. Intended for students preparing to teach at the elementary school level. [Pre-requisite: completed lower division GE science and math. MATH 308B (C).]

SCI 341. Nature and Practice of Science for Elementary Education (3). Explore the nature and practice of science, including an examination of relationships among the various fields of science and other subjects including history. [Pre-requisite: SCI 331 and MATH 308B (C)]

SCI 480. Selected Topics in Science (1-5). Student preparations typically required. Topic and mode of instruction depend on availability of faculty and facilities. [Pre-requisite: upper division or grad standing and IA. Rep.]


SCI 502. Selected Topics in Science (1-5). Topic and mode of instruction depend on availability of faculty and facilities. [Pre-requisite: upper division or grad standing and IA. Rep.]
Planning and presentation of scientific research. Required for all Natural Resources graduate students.

**GRADUATE**

**SCI 698. Graduate Colloquium in Environmental Systems (1).** [Rep.]

### Secondary Education

**LOWER DIVISION**

**SED 210. Early Fieldwork Experience in Schools (1).** Field experience with secondary school pupils. Observe a minimum of 45 hours under supervision and keep log. [Co-requisite: SED 410. Hours arranged with education office. Meets prior fieldwork experience admission requirement for education credential programs.]

**UPPER DIVISION**

**SED 410. Observation & Participation Seminar (1-3).** Upper division students obtain better understanding of teaching through supervised participation in classroom situations. Not applicable to directed teaching requirement. Hours arranged with education office. [Rep twice in different assignments.]

### CREDENTIAL/LICENSE

**SED 701. Selected Topics in Secondary Teaching (5-3).** [Rep with different topics.]

**SED 702. Basic Counseling Skills for Teachers (1).** Workshop for credential candidates and educators focusing on the development of strong and healthy communication for their students. [CR/NC. Rep once.]

**SED 708. Teacher Performance Assessment (0.5).** This course is designed to provide support for the completion of the Performance Assessment for California Teachers teaching event during full-time student teaching. [Pre-requisite: admitted to SED credential program.]

**SED 709. Teacher Performance Assessment Support (1.5).** This course is designed to provide support for the completion of the Teacher Performance Assessment during full-time student teaching. [Pre-requisite: admitted to SED credential program.]

**SED 710. Elementary Methods (3).** Explore methodology for teaching in the elementary school in a self-contained classroom.

**SED 711. Nonviolent Crisis Intervention (1).** Acquire verbal skills to de-escalate crises and if crisis escalates to physical level, nonviolent physical intervention skills to ensure safety of students/self. [Pre-requisite: admission to SED credential program or IA. CR/NC.]

**SED 712. Teaching & Learning in Secondary Schools (2).** Development of student understanding: curriculum development (unit goals, lesson plans, assessment); multicultural perspectives in teaching and learning; philosophy of teaching. [Pre-requisite: SED 714 (C).]

**SED 713. Classroom Management (1).** Focus on a variety of methodologies for creating and managing a classroom community.

**SED 714. Educational Psychology (2).** Physical, social, moral, and cognitive development of the adolescent; social and family issues; learning theories, motivation, and assessment.

**SED 715. Multicultural Education (2).** Equity and diversity: Ethnicity and race; gender; exceptionally, social class, sexual orientation, language, religion.

**SED 717. Service Learning in a Multicultural Setting (1).** Develop skills teaching diverse youth through direct experience and education programs. Understand components of service learning pedagogy. [Pre-requisite: admitted to SED credential program and SED 715 (C). CR/NC.]

**SED 730. Bilingual/ELD Theory & Methods (3).** Theory and methodologies of teaching bilingual and English-language-development students. [Pre-requisite: admitted to SED credential program.]

**SED 731. Secondary Curriculum Instruction: Art (2).** Methods and resources for teaching all areas of art.

**SED 733. Secondary Curriculum Instruction: English/Language Arts (2).** Methods and resources for teaching all areas of English/language arts.

**SED 734. Secondary Curriculum Instruction: Modern Language (2).** Methods and resources for teaching all areas of a modern language.

**SED 736. Secondary Curriculum Instruction: Industrial Technology (2).** Methods and resources for teaching all areas of industrial technology.

**SED 737. Secondary Curriculum Instruction: Math (2).** Methods and resources for teaching all areas of math.

**SED 738. Secondary Curriculum Instruction: Music (2).** Methods and resources for teaching all areas of music.

**SED 739. Secondary Curriculum Instruction: Physical Education (2).** Methods and resources for teaching all areas of physical education.

**SED 740. Secondary Curriculum Instruction: Science (2).** Methods and resources for teaching all areas of science.

**SED 741. Secondary Curriculum Instruction: Social Studies (2).** Methods/resources for teaching all areas of social studies.

**SED 743. Content Area Literacy (3).** Supervised practice developing/ selecting strategies, materials, and procedures that promote reading growth through secondary school classes. [Pre-requisite: established candidacy in SED credential program, concurrent enrollment in fieldwork or student teaching, or IA.]

**SED 744. Secondary Seminar: Art (1).** Common problems, strategies, and practical applications related to student teaching art, such as preparing for the opening/closing of school. [Pre-requisite: admitted to SED credential program.]

**SED 746. Secondary Seminar: English (1).** Common problems, strategies, and practical applications related to student teaching English/language arts, such as preparing for the opening/closing of school. [Pre-requisite: admitted to SED credential program.]

**SED 747. Secondary Seminar: Modern Language (1).** Common problems, strategies, practical applications related to student teaching language, such as preparing for opening/closing of school. [Pre-requisite: admitted to SED credential program.]

**SED 749. Secondary Seminar: Industrial Technology (1).** Common problems, strategies, and practical applications related to student teaching industrial technology, such as preparing for the opening/closing of school. [Pre-requisite: admitted to SED credential program.]

**SED 750. Secondary Seminar: Math (1).** Common problems, strategies, and practical applications related to student teaching math, such as preparing for the opening/closing of school. [Pre-requisite: admitted to SED credential program.]

**SED 751. Secondary Seminar: Music (1).** Common problems, strategies, and practical applications related to student teaching music, such as preparing for the opening/closing of school. [Pre-requisite: admitted to SED credential program.]

**SED 752. Secondary Seminar: Physical Education (1).** Common problems, strategies, and practical applications related to student teaching physical education, such as preparing for the opening/closing of school. [Pre-requisite: admitted to SED credential program.]

**SED 753. Secondary Seminar: Science (1).** Common problems, strategies, and practical applications related to student teaching science, such as preparing for the opening/closing of school. [Pre-requisite: admitted to SED credential program.]

**SED 754. Secondary Seminar: Social Studies (1).** Common problems, strategies, and practical applications related to student teaching social studies, such as preparing for the opening/closing of school. [Pre-requisite: admitted to SED credential program.]

**SED 756. Bilingual/ESL Theory & Methods Seminar (1).** This is a one unit application-based seminar offered in the spring which provides credential candidates with the opportunity to implement and reflect upon their incorporation of strategies for English language learners during their student teaching semester. [Rep once.]

**SED 762. Supervised Fieldwork in Student Teaching (1-3).** Field experience integrated with secondary curriculum instruction [SED 731-741]. Under supervision, observe secondary school classrooms (minimum 45 hrs per credit unit); keep log; perform assignments from secondary curriculum instruction. [Pre-requisite: admitted to SED credential program.]

**SED 767. Student Teaching Secondary Education (14).** Student teaching in secondary departmentalized classrooms with mentor teacher and university supervision. Students begin the spring student teaching in January completing the summer student teaching in June completing the summer.
the placement at the close of the public school year. [Pre-requisite: admitted to SED credential program. CR/NC.]

SED 776. Teaching in Inclusive Classrooms [2]. Designed to help prospective secondary educators develop an understanding of the educational needs of students with disabilities within the context of the general education setting. [Pre-requisite: a teaching credential or acceptance into a teacher credential program and concurrently enrolled in student teaching fieldwork classes.]

SED 790. Supervised Teaching Experience [1-3]. Student or intern teaching experience in secondary departmentalized classrooms with mentor and university supervision.

SED 799. Directed Study [1-4]. Independent study; problems, issues, and/or practical applications. [Pre-requisite: IA. Rep.]

Social Work

LOWER DIVISION

SW 101. Introduction to Social Work & Social Work Institutions [3]. Using a generalist and decolonizing model, course addresses intersectional concerns around power, privilege, resistance, and struggle in relation to social, environmental and economic justice along with methods for facilitating change. [GE D or E-LD; DCG-D.]

SW 255. Beginning Social Work Experience [2]. Beginning experience in social service. Acquire skills and develop understanding of social work ethics, values, and roles in a diverse society. 80-minute weekly seminar; 80 hrs volunteer work per semester.

UPPER DIVISION


SW 340L. Social Work Methods I Lab [1]. This social work methods lab offers students intensive opportunities to develop social work values, knowledge, and practices consistent with the topics included in the methods course in the context of work with individuals and families. There is considerable opportunity for self-reflection in relation to the development of one’s practice. [Coreq for SW students: SW 340.]


SW 341M. Social Work Methods II Lab [1]. This social work methods lab offers students intensive opportunities to develop social work values, knowledge, and practices consistent with the topics included in the methods course in the context of work with groups, organizations, communities, and society. There is considerable opportunity for self-reflection in relation to the development of one’s practice. [Coreq for SW students: SW 340.]

SW 350. Human Behavior & the Social Environment I [4]. Contextual models for understanding human experiences, with a particular emphasis on individuals, families, and small groups. Diversity within human experience and the systemic influences that shape human experience are highlighted. [Pre-requisite: SW major.]

SW 351. Human Behavior & the Social Environment II [4]. Contextual models for understanding human experiences, with a particular emphasis on large groups, organizations, communities, and society. Diversity within human experience and the systemic influences that shape human experience are highlighted. [Pre-requisite: SW 350; SW major.]

SW 355. Social Agency Experience [2]. Exposure to human service agency settings and processes. Organizational context for social work. 80-minute seminar weekly; 60 hours volunteer work per semester. [Pre-requisite: SW major.]

SW 356. Social Work Field Preparation [1]. Lab to prepare senior field experience. [Pre-requisite: SW major with junior standing; Weekly; twice for 2 hrs. Rep once.]

SW 382. Social Work Research [4]. Understand research as an analytic and interpretive approach to developing knowledge. Evaluate quantitative and qualitative research; sampling strategies; validity, reliability, measurement instruments, ethical and human diversity issues, analysis, developing conclusions. [Pre-requisite: SW major.]

SW 411. Distributed Learning Community — BA [1.5]. This course is a weekly seminar where students, together with the Distributed Learning Coordinator, engage in an integrative process to strengthen their engagement with each other and the curriculum in the online BA Social Work program. This seminar is designed to integrate theory with practice, to gain information about community resources, to monitor student progress in the program, and to process the experiences in coursework and community practice on practical, conceptual, and ethical levels through the practice of writing for social change. Emphasis is on building a learning community while engaging students to support one another’s personal/professional growth in understanding the use of self. [CR/NC. Rep once.]

SW 420. Decolonizing Social Work with Indigenous Communities [1.5]. Prepares students to understand and support Indigenousness and Sovereignty (Self-Determination). Promotes awareness of colonization and decolonization processes affecting Indigenous Peoples and how social workers can participate in solutions affecting them. [Rep twice.]


SW 442. Advanced Social Work Methods [3]. Practice-oriented topics, such as work with particular populations (aged, children) or practice orientations (mental health, medical social work). [Pre-requisite: junior standing. Rep.]


SW 459. Child Welfare Training Seminar [1.5-3]. This course provides supplementary instruction on all aspects of the child welfare services system: intake, emergency response, family preservation, reunification, permanency planning, and adoptions. Attention is on generalist social work practices that partner with families and communities to enhance overall wellbeing. Significant emphasis is on the necessary conceptual and social work interests. Focus often intensive and short-term. [CR/NC. Rep.]

SW 480. Special Topics [5-4]. Department course schedule has topics. [Rep.]


SW 499. Directed Study [1-3]. Independent study of defined problems through library and/or field research. [Pre-requisite: IA. Rep.]

GRADUATE

SW 511. Distributed Learning Community — Foundation [1.5]. This course is a weekly seminar where students, together with the Distributed Learning Coordinator, process experiences in the foundation year of the online graduate Social Work program. This seminar is designed to integrate theory with practice, to gain information about community resources, to monitor student progress in the program, and to process the experiences in coursework and community practice on practical, conceptual, and ethical levels through the practice of writing for social change. Emphasis is on building a learning community while engaging students to support one another’s personal/professional growth in understanding the use of self. [CR/NC. Rep.]

SW 530. Social Policy & Services [3]. Examines economic, historical, political, sociocultural aspects of social policy, values and ideologies that shape social welfare programs and services;
SW 540. Generalist Social Work Practice (3). Applies knowledge and skills for generalist practice guided by the values of social justice and empowerment. Includes skill building lab. [Pre-requisite: MSW program admission.]

SW 541. GSWP: Native American & Rural (3). Within the historical context of colonization, the spirit and culture of Native American and rural communities are explored. Knowledge, values, and skills to work with and within these contexts are examined. [Pre-requisite: MSW program admission.]

SW 543. GSWP II: Macro Practice (3). Social work theory and methods relevant for macro-level practice are considered. Skills for engagement, assessment, planning, and evaluation with client systems including rural and Native American communities are explored. [Pre-requisite: MSW program admission.]

SW 545. SWC Research: Advanced (3). Theories in human relations/development, indigenous and other cultural ways of knowing are examined in the context of shifting paradigms and meaning for daily life experiences. [Pre-requisite: MSW program admission.]

SW 550. Human Development, Diversity & Relations (3). Theories in human relations/development, indigenous and other cultural ways of knowing are examined in the context of shifting paradigms and meaning for daily life experiences. [Pre-requisite: MSW program admission.]

SW 555. Foundation Internship (3). Founda-

SW 559. Child Welfare Training Seminar (1.5). A required component of the Title IV-E stipend program. Focus is on foundation competencies for practice in child welfare. [Pre-requisite: MSW program admission and stipend recipient. CR/NC. Rep once for credit.]

SW 560. AGP: Child & Family Welfare (3). Examines child, family, and Indian child welfare policies/practices from historical, political, cultural, economic contexts. Emphasizes advanced practice skills for serving indigenous and rural families and children. [Pre-requisite: complete first year foundation coursework.]

SW 561. Distributed Learning Community – Advanced (1.5). This course is a weekly seminar where students, together with the Distributed Learning Coordinator, process experiences in the advanced year of the online graduate Social Work program. This seminar is designed to integrate theory with practice, to gain information about community resources, to monitor students' progress in the program, and to process the experiences in coursework and community practice on practical, conceptual, and ethical levels through the practice of writing for social change. Emphasis is on building a learning community while engaging students to support one another's personal-professional growth in understanding the use of self. CR/NC. Rep.

SW 564. AGP: Community & Organization (3). Prepares students for advanced level practice with and within communities and organizations. Consideration is given to grant writing, program development, and empowering communities to engage in meaningful change with organizations. [Pre-requisite: complete first year foundation courses.]

SW 565. Advanced Internship (3). Advanced community internship demonstrating students' knowledge, values, and skills in developing partnerships to benefit people and environmental conditions. Concurrent model. 480 total internship hours. [Pre-requisite: complete first year foundation coursework. CR/NC. Rep.]

SW 568. Mental Health Training Seminar (1.5). A required component of the Title IV-E stipend program. Focuses on advanced competencies for practice in mental health settings. [Pre-requisite: complete foundation coursework and current stipend recipient. CR/NC. Rep.]

SW 570. Dynamics of Groups, Agencies, Organizations (3). Emphasizes diversity, indigenous cultures, social justice and the role of the social worker. [Pre-requisite: MSW program admission.]

SW 575.惮寸野 refugee applicants] 2021-2022 Humboldt State University Catalog Social Work 287
Sociology

Sociology majors must receive a grade of C or higher in order to count completed courses toward the major. Graduate students must earn a B or higher to apply completed courses toward the degree.

**LOWER DIVISION**

**SOC 104. Introduction to Sociology** [3]. Study of social patterns across groups, social institutions, and societies. Socialization, social interaction, inequalities, change, social issues, and social science research. Relationship of self and society. [GE D]

**SOC 113. Sociology Skills Development** [2]. Develop independent academic success strategies. Improve student writing abilities: summarize, analyze, and apply course concepts to social, cultural, and economic contexts of student lives. [Co-requisite: SOC 104 EOP]

**SOC 225S. Social Issues & Action** [4]. Why do some social issues become a focus of concern? How do inequalities shape definitions and responses? Course service learning experiences connect students to local organizations and actions.

**SOC 235 / ANTH 235 / COMM 235 / CRGS 235 / PSCI 235. Act to End Sexualized Violence** [1]. Analyze how sexualized violence impacts communities and operates as social control; learn to recognize victim-blaming, promote survivor-centered responses, foreground enthusiastic consent, and take action to transform our campus community. [CR/NC]

**SOC 275. The Emerald Triangle** [1]. This course examines the production, distribution and use of Marijuana in “The Emerald Triangle.” We consider perspectives from: Law Enforcement, Environmental and Human Health, Legalization, Medical Use, and Land Use. [CR/NC]

**SOC 280. Special Topics** [1-4]. Pressing social issues and popular topics. [Rep.]

**SOC 292L. Sociological Statistics Lab** [1]. Application of statistics knowledge. Skills training in SPSS quantitative data analysis. [Pre-requisite: STAT 10B(C) or STAT 10B (C) with a passing grade of C]

**UPPER DIVISION**

**SOC 302. Forests & Culture** [3]. Explore relationships between human civilizations and nature/forest in global and historical contexts. Themes include deforestation, ecological degradation, conservation, life-places, bioregionalism and ecological futures. Majors also take SOC 302M. [GE D]

**SOC 302M. Forests & Culture for Majors** [1]. Required corequisite for sociology majors enrolled in the 3-unit GE course of the same title. Majors will meet with instructor outside of GE section time to discuss movies, books, or paper. [Co-requisite: SOC 302]

**SOC 303. Race & Inequality** [3]. Problems of racialized power and inequality: causes, processes, theoretical considerations, and social movements. Multiple perspectives on problems and peacemaking efforts. Majors also take SOC 303M. [DGD+ GE D]

**SOC 303M. Race & Inequality for Majors** [1]. Required corequisite for sociology majors enrolled in the 3-unit GE course of the same title. Majors will meet with instructor outside of GE section time to discuss movies, books, or paper. [Co-requisite: SOC 303]

**SOC 305. Global Transformations** [3]. Economic, political, social, and ecological dimensions of globalization. Theories and research in global political economy, world systems, transnationalism, and social movements in historical and comparative contexts. Majors also take SOC 305M. [GE D]

**SOC 305M. Global Transformations for Majors** [1]. Required corequisite for sociology majors enrolled in the 3-unit GE course of the same title. Majors will meet with instructor outside of GE section time to discuss movies, books, or paper. [Co-requisite: SOC 305]

**SOC 306. The Changing Family** [3]. Examines family as a pivotal institution in cross-cultural and American perspectives. Covers historical changes, contemporary issues, relation to structured inequalities, and social justice. Majors also take SOC 306M. [DGD+ GE D]

**SOC 306M. The Changing Family for Majors** [1]. Required corequisite for sociology majors enrolled in the 3-unit GE course of the same title. Majors will meet with instructor outside of GE section time to discuss movies, books, or paper. [Co-requisite: SOC 306]

**SOC 308. Sociology of Altruism & Compassion** [3]. Altruism and compassion as an antidote to a divided world. Create a more caring society by understanding what motivates people to action. Majors also take SOC 308M. [GE D]

**SOC 308M. Sociology of Altruism & Compassion for Majors** [1]. Required corequisite for sociology majors enrolled in the 3-unit GE course of the same title. Majors will meet with instructor outside of GE section time to discuss movies, books, or paper. [Co-requisite: SOC 308]

**SOC 310. Sociological Theory** [4]. Foundational people and theories in sociology. Social, economic, political, intellectual, biographical contexts of theory development. Appraise theoretical relevance to contemporary society. Writing intensive course. [Pre-requisite: SOC 225S; junior standing or greater]

**SOC 316 / WS 316. Gender and Society** [4]. Nature of gender dynamics linking personal experiences to the structure and functioning of institutions, to cultural/subcultural aspects of society, and to interests of the powerful. [DGD+]

**SOC 320. Environmental Sociology** [4]. Examines the dynamics of the “natural environment” and society. Emphasis on exploring environmental crises, theoretical perspectives on nature, climate and sustainability.


**SOC 330. Social Deviance** [4]. "Outsiders" by virtue of age, physical status, ethnic heritage, socioeconomic status, or social and occupational roles — elderly, disabled, poor; women, nonwhites, police officers. Role engulfment, anomie, and alienation.

**SOC 350. Social Movements** [4]. This seminar introduces students to the study of U.S. and international social movements. Students study the causes, activities, successes, and failures of social movements, and their importance in the contemporary world.


**SOC 370. Environmental Inequality and Globalization** [4]. Examines environmental justice and environmental inequality on a global level and their implications for communities and nation states.

**SOC 372. Proseminar** [1]. Structures career planning and professional development through resume building, job search, networking, and interview training. Develop proposal for capstone internship experiences of career plan. [Pre-requisite: sophomore standing or greater; CR/NC]

**SOC 382. Introduction to Social Research** [4]. Theoretical principles, ethical issues, and common techniques for designing and implementing qualitative and quantitative social science research. [Pre-requisite: SOC 282L (C); junior standing or greater]

**SOC 401. Contemporary Social Theory** [4]. 20th century theories: functionalism, conflict, interactionism, exchange, structural, phenomenological, existential, interpretive, and critical. [Pre-requisite: SOC 310; junior standing or greater]

**SOC 411. Popular Culture** [4]. Considers popular culture as an important arena of social and political struggle. Students explore a variety of social practices such as wrestling, hip hop, weddings, and television talk shows, and consider the ways that these practices are linked to larger systems of power. [Pre-requisite: SOC 310 or equivalent theory (C)]

**SOC 468. Migration and the Global Economy** [4]. Examines the political economy of migration and the criminalization of human movement. Explores viability in relation to global poverty, climate change, nationalism, and capital accumulation. [Pre-requisite: CRIM 225 or CRIM 225S or SOC 225S; junior standing or greater]

**SOC 472. Graduate School Planning** [1]. Develop criteria for researching graduate programs. Identify goals and match with programs. Develop application materials - CV and statement of purpose. Plan experiences to make you a stronger candidate. [Pre-requisite: sophomore standing or greater; CR/NC]

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*Pre-requisite: corequisite(s); CR/NC mandatory credit/no credit; DA dept approval; disc discussion; sustainability-focused; sustainability-related; activ activity; (C) may be concurrent; coreq corequisite(s); CR/NC mandatory credit/no credit; DA dept approval; disc discussion; 2021-2022 Humboldt State University Catalog*
SOC 400. Special Topics (1-4). Pressing social issues and popular topics. [Pre-requisite: junior or senior standing. Rep.]

SOC 482. Internship (3). Capstone. Student must secure campus or community 90-hour placement and instructor approval in the semester prior to enrollment. Paper on related research literature. [Pre-requisite: SOC 372 or SOC 472; SOC 382; sociology majors SOC 410(C); CJS majors CRIM 410(C).]

SOC 492. Senior Thesis [3]. Design and carry out original empirical research or extensive review of literature. Proposal due in semester before enrollment to receive permission number. [Pre-requisite: SOC 372 or SOC 472; SOC 382; sociology majors SOC 410(C) or CJS majors CRIM 410(C).]


SOC 499. Directed Study [1-4]. Independent study of problems/issues or special theoretical/analytic concerns. [Pre-requisite: IA. Rep.]

GRADUATE


SOC 583. Quantitative Research Methods [4]. Discover the art and science of survey methods and data analysis in community research contexts. Develop statistical (descriptive, inferential, regression) analysis skills with emphasis on conceptual understanding and written interpretation. [Pre-requisite: STAT 108 or STAT 108i and SOC 382, or equivalents.]

SOC 584. Qualitative Research Methods [4]. Theoretical and practical elements of the interview, focus group, fieldwork and community action research. Develop and initiate original research project. Computer technology for data management and analysis. [Pre-requisite: SOC 382, or equivalent.]

SOC 586. Community Action Research [3]. Collaboratively use research skills to work with community groups and their identified research needs in ways that help our local community. Explore theoretical underpinnings uniting action research and appropriate methodologies. [Graduate standing; senior standing with IA.]

SOC 605. Graduate Proseminar in Sociology [1]. Develop professional sociological skills and engage with faculty research and professional activities. [Rep.]


SOC 650. Race, Ethnicity & Gender [4]. Causes, processes, theoretical explanations of racism, sexism, discrimination. Possible solutions. Intergroup relations from global perspective.

SOC 665. Community, Ecology & Social Action [4]. This graduate seminar links emancipatory sociology with practical skills designed to empower ordinary people to organize effectively in the community for social, environmental and economic justice. [Pre-requisite: graduate standing.]

SOC 680. Seminar in Sociological Topics [1-4].

SOC 682. Teaching Internship [1-3]. Students emphasizing teaching may apply. If selected, a student is supervised by a faculty mentor: supervising faculty member monitors and mentors intern. [Pre-requisite: SOC 560; IA.]


SOC 692. Master’s Degree Project [1-6]. See Graduate Program Manual. [CR/NC. Rep.]

SOC 699. Independent Study [1-4]. Directed study of problems/issues or special theoretical/analytic concerns. [Pre-requisite: IA. Rep.]

LOWER DIVISION

SOIL 104. Introduction to Sustainable Agriculture [3]. The course provides an understanding of the complex relationships among crop plants, domesticated animals, and their abiotic and biotic environment, and the requirements for sustainable agriculture. [Weekly: 2 hrs lect, 3 hrs lab. (GE B.)]

SOIL 260. Introduction to Soil Science [3]. Soil’s physical, chemical, and biological properties, implications for land management. Identify soil parent materials; use soil survey reports. [Pre-requisite: CHEM 107 or CHEM 109 or IA. Weekly: 2 hrs lect, 3 hrs lab.]

UPPER DIVISION


SOIL 460. Wildland Soil Management & Erosion Control [3]. Characterization, mapping, assessment, interpretation, and management of wildland soils; nutrient cycling, fire effects, erosion control. [Pre-requisite: SOIL 260 or equivalent. Weekly: 2 hrs lect, 3 hrs lab.]

SOIL 462. Soil Fertility [3]. Methods of evaluating/managing soil fertility; nutrient availability and cycling in terrestrial ecosystems; soil test methods and interpretation of results. [Pre-requisite: SOIL 260, or IA. Weekly: 2 hrs lect, 3 hrs lab. Offered alternate years.]

SOIL 465. Soil Microbiology [3]. Interrelationships between soil, microorganisms, and plants, especially in context of wildland soils. Isolate/identify microorganisms. [Pre-requisite: SOIL 260 or equivalent, and BIOL 105. Weekly: 2 hrs lect, 3 hrs lab. Offered alternate years.]

SOIL 467. Soil Physics [3]. State/transport of matter and energy in soil; physical processes governing soil/water energy relationships. [Pre-requisite: SOIL 260 or equivalent, and PHYX 106 or PHYX 109, or IA. Weekly: 2 hrs lect, 3 hrs lab. Offered alternate years.]

SOIL 468. Introduction to Agroforestry [3]. Objectives and socioeconomic contexts. Multipurpose tree species; soil/tree/crop/livestock interactions; soil conservation; soil fertility effects. [Pre-requisite: BOT 105 and SOIL 260 or equivalent.]

SOIL 480. Selected Topics [1-3]. Lecture as appropriate. [Rep with different topics.]

SOIL 485. Senior Seminar [1-2]. Topics of current interest. Lectures, guest speakers, discussions, and/or student presentations. [Pre-requisite: junior or senior standing or IA. Rep.]

SOIL 499. Directed Study [1-3]. Individual research/project. [Pre-requisite: IA. Rep.]


SPAN 105L. Spanish Laboratory Level I [1]. Self-directed, subscription-based online language course.

SPAN 106. Spanish Language & Culture II [4]. Beginning Spanish II; develop understanding, speaking, reading, writing, knowledge of Hispanic culture. Language as communicative medium; carrier of culture. Conducted in Spanish. Part 2 of 2 course sequence. [Rec: SPAN 105. GE C.]

SPAN 106L. Spanish Laboratory Level II [1]. Self-directed, subscription-based online language course.
DRAFT

UPPER DIVISION


SPAN 107L. Spanish Laboratory Level III [1]. Self-directed, subscription-based online language course.

SPAN 108. Level III Heritage Speakers [4]. Designed for Heritage Speakers to master formal/professional Spanish and deepen awareness of national and international Hispanic cultures. Part 1 of a 2 course sequence. [Pre-requisite: native speaking ability in Spanish, confirmed by personal interview with instructor: DCG-n. GE C.]

SPAN 108S. Level III Heritage Speakers [4]. Designed for Heritage Speakers to master formal/professional Spanish, serve local Latino community, and deepen awareness of national and international Latino cultures. Part 1 of a 2 course sequence. [Pre-requisite: native speaking ability in Spanish, confirmed by personal interview with instructor: DCG-n. GE C.]


SPAN 207L. Spanish Laboratory Level IV [1]. Self-directed, subscription-based online language course.

SPAN 208. Level IV Heritage Speakers [4]. Designed for Heritage Speakers to master formal/professional Spanish and deepen awareness of national and international Hispanic cultures. Part 2 of a 2 course sequence. [Pre-requisite: SPAN 108; near-native speaking ability in Spanish, confirmed by personal interview with instructor: DCG-n. LD C.]

SPAN 208S. Level IV Heritage Speakers [4]. Designed for Heritage Speakers to master formal/professional Spanish, serve local Latino community, and deepen awareness of national and international Latino cultures. Part 2 of a 2 course sequence. [Pre-requisite: native speaking ability in Spanish, confirmed by personal interview with instructor: DCG-n. GE C.]

SPAN 250. Intermediate Spanish Conversation [1-4]. Everyday language, including idioms, gestures, context-specific vocabulary. Conversation topics chosen from newspapers, text, video. [Pre-requisite: SPAN 106 or IA. Rep.]

SPAN 280. Lower Division Weekend Retreat/ Seminar [1-4]. Language retreat or seminar with guest lecturer; typically offered on weekend; culminates in project or report. Or lab for which times of required attendance are self-determined. [Pre-requisite: completed Spanish level II or IA. Rep.]

SPAN 305. Hispanic Civilization: Regional Studies [3]. Chronological presentation of culture, pre-Colombian to present day, with special emphasis on host country’s culture. Students visit relevant historical and cultural sites. Recommended preparation: A minimum of three semesters of college-level Spanish language instruction, or equivalent. [Repeatable 2 times. UD GE C.]


SPAN 308S. Introduction to Translation & Interpretation [3]. Apply theoretical and practical principles of translation and interpretation of literature, real-world texts, and oral contexts. Analyze social/cultural implications of working in this field. Practical experience through service learning. [Pre-requisite: at least one of the following: native or near native Spanish proficiency; 5 semesters of college-level Spanish or equivalent; or IA. Rep once. DCG-d. GE C.]

SPAN 310. Spanish Advanced Oral Skills [3]. Speaking and listening comprehension in Spanish for a variety of purposes in authentic contexts. Identify main ideas and supporting details of oral communication. Analyze and think critically about oral communication. [Rec: SPAN 207 C or SPAN 208 C or SPAN 208S C.]

SPAN 311. Spanish Level V, Advanced Grammar & Composition [4]. Contemporary grammatical analysis/terminology; contrasts within the Spanish language; contrasts/relationships between English and Spanish. Current idiomatic and formal usage in both oral and written language. [Pre-requisites: SPAN 207 or equivalent, or IA.]

SPAN 313. Spanish Peer Tutoring [1-4]. Students apply their mastery of discipline-specific knowledge and expertise to assist and support peers in the language acquisition process. This course offers experiential experience with effective peer mentoring techniques applicable to a tutorial setting. [Pre-requisites: SPAN 310 and SPAN 311, or IA. Rep up to 4 units total.]

SPAN 315. Field Experience: Teaching Spanish as a Second Language [1-4]. Class discussions complement supervised academic internships in “approved” community partner K-12 schools, providing students direct application/service opportunities of discipline-specific knowledge. Students will be exposed to the theories of language acquisition and learning. [Pre-requisites: at least one of the following: native or near native Spanish proficiency; 5 semesters college-level Spanish or equivalent, or IA. Rep up to 8 units total.]

SPAN 321. Advanced Writing Skills [4]. In depth exploration of various writing styles, including news articles, technical or scientific writing, how-to articles, and persuasive writing. Recommended preparation: SPAN 311. [Prerequisites: SPAN 207.]

SPAN 325. Grammar: Regional Studies [1-4]. Contemporary grammatical analysis/terminology; contrasts of regional dialects. Current idiomatic and formal usage in both oral and written language with special emphasis on a Spanish-speaking host country. [Pre-requisite: SPAN 107 or SPAN 108S, minimum of three semesters of college-level Spanish language instruction or equivalent. Rep twice.]

SPAN 335. Reading & Writing: Regional Studies [1-4]. Contemporary readings, short stories, short novels, poems, newspaper articles. Review of current idiomatic and formal usage in written language of a Spanish-speaking host country. [Pre-requisite: SPAN 107 or SPAN 108S, minimum of three semesters of college-level Spanish language instruction or equivalent. Rep twice.]

SPAN 340. Critical Reading in Spanish I [3]. Functions and elements, literary periods, genres, trends, movements, historical context, and appropriate terminology. Part one of a two-course sequence. [Pre-requisite: SPAN 207 or IA.]

SPAN 341. Critical Reading in Spanish II [3]. Functions and elements, literary periods, genres, trends, movement; historical context and appropriate terminology. Part two of a two-course sequence. Recommended preparation: SPAN 321 and SPAN 340. [Prerequisites: SPAN 311.]

SPAN 342. Cervantes [4]. Don Quixote and/or Cervantes’ other works. His development as a man and writer within the framework of his time. [Pre-requisite: SPAN 340 or IA.]

SPAN 343. The Golden Age [4]. Spain’s greatest period of original literature; picaroscopic novel flourished; modern novel emerged; dramas of intrigue, history, morals, and sentiment entertained/educated the public; poetry evolved complicated forms with conceptismo and culteranismo. Cervantes, Lope de Vega, Tirso de Molina, Calderon, Quevedo, Gongora, others. [Pre-requisite: SPAN 340 or IA.]

SPAN 344. Modern Hispanic Theater Workshop [4]. Analyze plays by most important dramatists of 20th century: Lorca, Buero Vallejo, Sastre; avant-garde playwrights such as Arrabal in Spain and Solorzano, Usigli, Villarruta, and Gorostiza in Latin America. Authors vary. Produce and stage a play (or meaningful parts of different plays). [Pre-requisite: SPAN 340 or IA.]

SPAN 345. Hispanic Cinema [4]. Films of past 50 years, both as art medium and document of changing society. New generation of film makers/directors. When possible, study relationship between literary work and its film adaptation. [Pre-requisite: SPAN 340 or IA.]

SPAN 346. Borges & the Contemporary Spanish American Short Story [4]. Borges’ short stories as pre-texts of Spanish American modern narrative literatures. May include works from Cortazar, Rulfo, Valenzuela, Lynch, others. [Pre-requisite: SPAN 340 or IA.]

SPAN 347. The “Boom” of the Latin American Novel [4]. Magic realism; the fantastic; self-
conscious fiction. García Marqués, Vargas Llosa, Fuentes, Sábato. Innovative structure, mass media techniques, linguistic play. [Pre-requisite: SPAN 340 or IA.]


SPAN 349. Contemporary Spanish Novel (4). Tremendismo, behaviorism, alienation, ironic and social realism. Cela, Delibes, Martín Santos, Ferlosio. Relationship between the novel and political/social conditions; problem of censorship. [Pre-requisite: SPAN 340 or IA.]

SPAN 365S. Field Experience: Regional Studies (1-4). Students apply four language skills [oral, writing, reading, and comprehension] in an authentic social and cultural context while serving host country's local community needs. [Pre-requisite: SPAN 107 or SPAN 108S, minimum of three semesters of college-level Spanish language instruction or equivalent. Rep twice.]

SPAN 370. Spanish Retreat/Seminar (1). Spanish immersion retreat and/or seminar. Typically includes overnight stays and cultural site visits, culminates in a specific project or report. [CR/NC.]

SPAN 386. International Latino Film Seminar (1). This seminar presents and discusses three films from the Hispanic world, in Spanish with English subtitles. [CR/NC. Rep 3 times.]

SPAN 401. Hispanic Civilization: Spain (4). Social, political, and cultural evolution from origins of Spanish nation to present day. [Pre-requisite: SPAN 207 or IA.]

SPAN 402. Hispanic Civilization: Latin America (4). Chronological presentation of culture, pre-Colombian to present day [Pre-requisite: SPAN 207 or IA.]

SPAN 408S. Field Experience: Translation and Interpretation (1-4). Supervised application of translation and interpretation of literature, real-world texts, and oral contexts. Students experience and reflect on social/cultural/ethical implications of working in this field. Students and “approved” community partners collaborate through Service Learning. [Pre-requisite: SPAN 308S or IA. Rep up to 4 units total. DCG d.]

SPAN 435. Spanish Applied Linguistics (4). Elementary principles of linguistics; their application to Spanish. Difficulties of syntax, morphology, and phonology from an English-speaker’s point of view. [Pre-requisite: SPAN 311 or IA.]

SPAN 480. Undergraduate Seminar (1-4). Topic pertaining to literature, language, or culture of either Spain or Latin America. Past topics: music of Spain, Middle Ages, problems of translation. [Pre-requisite: SPAN 340 or IA. Rep.]

SPAN 492. Senior Project (3). Research paper treating a topic related to language, literature, or culture. Individual guidance by faculty member. Required for degree in Spanish. [Pre-requisite: senior standing.]

SPAN 499. Directed Study (1-4). Hours TBA. [Rep.]

Special Education

GRADUATE


CREDENTIAL/LICENSEURE

SPED 702. Foundations of General and Special Education (3). Foundations of general and special education instruction, overview of instructional techniques and curricula, factors affecting instruction, principles of assessment, trends and issues. [Pre-requisite: EDUC 377(C) and admission to SPED program, or IA.]

SPED 703. Foundations of Assessment & Program Planning (3). Evaluate, select, administer, score, and interpret formal and informal assessment instruments. Use assessment results to identify instructional needs of students with disabilities and plan individual education program.

SPED 705. Multicultural Special Education (2). Historical, legal, philosophical, and theoretical foundations of general and special education in a diverse society. Emphasis on cross-cultural language and academic development. [Pre-requisite: EDUC 377(C) and admission to SPED program, or IA.]

SPED 706. Applied Behavior Analysis for Teachers (3). Basic concepts of applied behavior analysis, development of individual positive behavior support plan, and implementation of behavior management strategies in classroom settings. [Pre-requisite: EDUC 377(C) and admission to SPED program, or IA.]

SPED 707. Curriculum & Instruction — Reading & Language Arts (3). Instruction to language arts methods in general and special education. Foundations, assessment, instruction intervention, and curricular choices for special populations. [Pre-requisite: EDUC 377(C) and admission to SPED program, or IA.]

SPED 733. Special Education Policies & Procedures (2). Introduction to Federal and State laws that govern the provision of special education services. Procedural mandates and safeguards, preparing and implementing successful individual education plans. [Pre-requisite: EDUC 377(C) and admission to SPED program, or IA.]

SPED 736. Curricular & Instructional Skills Seminar (1). Students share curricular ideas, instructional methods and strategies; demonstrate teaching skills, self-assess, and problem solve issues encountered in the special and general education classroom.

SPED 737. Non-Violent Crisis Intervention-Special Populations (1). Students acquire verbal skills to de-escalate crises and nonviolent physical intervention skills to ensure safety of students with disabilities and other individuals in the environment.

SPED 738. Fall Special Education Student Teaching (3). Supervised student teaching all subjects for students with mild/moderate/severe disabilities to complete partial requirements for the Education Specialist Preliminary Credential under the supervision of a mentor teacher and university supervisor [CR/NC.]

SPED 739. Spring Special Education Student Teaching (3). Supervised student teaching all subjects for students with mild/moderate/severe disabilities to complete partial requirements for
the Education Specialist Preliminary Credential under the supervision of a mentor teacher and university supervisor. [CR/NC.]


SPED 745. Practicum: Communication Methods with Severe Disabilities (1). Guided observations and supervised fieldwork experiences in general and special education settings; curriculum assessment in communication methods and social relationships for students with severe disabilities. [Pre-requisite: admission to SPED program. Co-requisite: SPED 745, CR/NC. Rep.]


SPED 798. Directed Study (1-3). Individual study; staff direction. [Rep.]

Special Programs

LOWER DIVISION

SP 117. College Seminar (1). Information, skills, values, and attitudes helpful in becoming an active participant in the college learning process. Small group format. [Open only to students in their first or second semesters. Rep twice.]

SP 120. Freshman Seminar (1-2). Large group presentations and workshops on survival in college and learning skills development. Peer-led small groups focus on academic goals and social support for transition to college life. Establish connections to HSU community and learn to balance life inside and outside the classroom. Achieve academic success. [CR/NC. Open only to first-time freshmen.]

SP 121S. Issues in Community Volunteering (1). Volunteer roles, particularly in direct relationships. Issues appropriate to specific populations (e.g. foster youth, homelessness, senior citizens). May involve an HSU program and/or committees or campus governance. [Weekly: 4 hrs of workshops and direct service. CR/NC. Rep.]

SP 280. Special Topics (1-4). [CR/NC. Rep.]

UPPER DIVISION

SP 380. Selected Topics (1-4). [CR/NC. Rep.]

Statistics

SUPPORT

Note that credit earned for support courses does not count toward unit requirements for graduation, GE, or major.


LOWER DIVISION

Prerequisites: Most statistics courses have prerequisites. Thus, to be eligible to enroll in a statistics course, a student must have received a grade of C- or higher in the HSU courses listed as prerequisites. In some lower division courses, a student may also satisfy the prerequisites by having an appropriate placement category or taking an HSU mathematics placement exam.

STAT 108. Elementary Statistics (3). Probability, relative frequency; measure of central tendency, variation, correlation; binomial and normal distributions; testing of hypotheses and estimation; linear regression. [Pre-requisite: Math placement category I, II or III. Weekly: 3 hrs lect, 2 hrs activ. GE B.]


STAT 109. Introductory Biostatistics (4). Descriptive statistics, probability, random variables, discrete and continuous distributions, confidence intervals, contingency tests, regression and correlation, tests of hypothesis, analysis of variance. Emphasis: methods and applications used in the biological and natural resource sciences. [Pre-requisite: MATH 101 or MATH 101i or MATH 102 [may be concurrent with IA] or equivalent, or IA. Weekly: 3 hrs lect, 2 hrs activ. GE B.]

STAT 280. Selected Topics in Statistics (1-3). Topics accessible to lower division students. [Pre-requisite: IA. Lect./lab as appropriate. Rep.]

UPPER DIVISION


STAT 333. Linear Regression Models/ANOVA (4). Linear regression, analysis of variance, and other linear models applied to experimental and observational studies. Course emphasizes model formulation, assumptions, selection, and interpretation in both hypothesis-testing and descriptive contexts. [Pre-requisite: MATH 101 or MATH 101i or MATH 102 or equivalent, and STAT 108 or STAT 108i or STAT 109. Weekly: 3 hrs lect, 2 hrs activ.]


STAT 406. Sampling Design & Analysis (4). Randomized sample surveys are used for natural resource monitoring, election polling, plant abundance estimation, and other purposes. This course presents approaches to sample selection and to inference/estimation from sample data. [Pre-requisite: STAT 109 or equivalent. Weekly: 3 hrs lect, 2 hrs activ.]

modeling, and ARIMA time series analysis. [Pre-requisite: STAT 108 or STAT 109 or STAT 109. Weekly: 3 hrs lect, 2 hrs activ.]

STAT 480. Selected Topics in Statistics [1-3]. [Pre-requisite: IA. Lect/lab as appropriate. Rep.]

STAT 499. Directed Study [5-3]. Directed reading and conferences on special topics. [Pre-requisite: IA. Rep.]

**GRADUATE**

**DEPARTMENT OF THEATRE AND DANCE**

STAT 504. Multivariate Statistics [4]. Meets jointly with STAT 404. Students in STAT 504 are expected to carry out an additional project and report findings. [Pre-requisite: STAT 109 or equivalent; matrix algebra highly recommended. Weekly: 3 hrs lect, 2 hrs lab.]

**UPPER DIVISION**

STAT 510. Modern Statistical Modeling [4]. Meets jointly with STAT 410. Students in STAT 510 are expected to carry out an additional project and report findings. [Pre-requisite: STAT 109 or STAT 108 or STAT 108i. Weekly: 3 hrs lect, 2 hrs lab.]

**GRADUATE**

**DEPARTMENT OF THEATRE AND DANCE**

TA 215. Acting 2: Principles of Voice and Movement [4]. Introduction of fundamental physical and vocal techniques for the performer; including body awareness, voice production, phonetics and dialect work, and continued developed performance practice and theory with an emphasis on canon works.

TA 221. Makeup for Stage & Screen [2]. Theories and practical experience in a lab/lecture situation.

TA 231. Production & Stage Management (2). Explores the relationship between stage and production management through vocabulary acquisition, historical perspectives, communication tools, and hands-on management projects. HSU’s production model and world theatre models are examined.

TA 237. Production Techniques [3]. Tools/techniques to realize the visual aspects of production safely. Explores relationships between design, use, and construction techniques.

**UPPER DIVISION**

TA 307. Theatre of the Oppressed [3]. Survey/apply this collection of techniques, exercises, and games. Explore theatre as a tool of social and political activism. [Rep once, but without GE credit. DCG-d. GE C.]


TA 322. Creative Drama [3]. Theatre games, movement, storytelling, improvisation, and role playing in relation to original dramatizations that develop children’s creative capacities. Culminates in lab situations with elementary children. [Occasional off-campus field trip during school hours on weekdays.]

TA 328. Production Practicum [1]. Required laboratory course for students’ participation in departmental mainstage productions. Opportunities include acting, design, stage management, house management, publicity, directing/assistant directing, and run crews. [CR/NC. Rep.]


TA 333. Lighting Design Stage & Screen [4].* Stage and film lighting design as sculptural, symbolic, and emotional compositions in theory and practice. [Rep.]

TA 336. Costume Design Stage & Screen [4].* Skills for designing and producing costumes for stage, film, and television. Includes color theory, fabric options, and scale. [Rep.]

TA 340. Theatre History and Criticism I [4].* Intellectual, cultural, artistic, and introductory critical theory perspectives in international theatre history and dramatic literature from 5th century BCE through Elizabethan era.

TA 341. Theatre History and Criticism II [4].* Intellectual, cultural, artistic, and introductory critical theory perspectives in international and multicultural theatre history and dramatic literature from 18th century through Post-Modernism. [DCG-n.]

TA 357. Performance Workshop [1-4]. Special topics in stage performance and actor training. Subject and areas of focus vary. [Rep.]

TA 377. Kennedy Center American College Theatre Festival (1). Workshop for students who are selected to participate at KCACF. Departmental application process required - see advisor. [Rep.]

TA 387. Design & Technology Workshop [1-4]. Special topics in theatre design and technology. Structure and curriculum varies. Appropriate skill level of knowledge required depending on curriculum. [Rep.]


TA 451. Principles of Stage Directing [4].* Students learn the principles and aesthetics of stage directing, including script analysis, character development, creative collaboration, and physical staging. [Pre-requisite: junior or senior standing.]

TA 480. Special Topics in Theatre Arts [1-4].* Variable topics. Check with Department for upcoming topics. [Rep; multiple enrollments in term.]

TA 494. Senior Seminar [2]. Exploration and discussion of current trends and topics in the cinematic and performing arts. Examination of creativity and the life of the artist in contemporary society. Resume/reel/portfolio preparation and presentation techniques. [Pre-requisite: at least 20 units of Theatre Arts or Film classes.]

TA 499. Directed Study [1-6].* Individual work on selected problems in Theatre. Hours TBA. [Rep; multiple enrollments in term.]

**Watershed Management**

**UPPER DIVISION**

In all classes, weekend trips may substitute for some scheduled labs or lectures. Labs may begin before 8:00 A.M. and last over three hours, allowing for travel.

WSHD 310. Hydrology & Watershed Management [4]. Hydrologic considerations of forest roads, stream crossings, road drainage. Management influences on hydrologic processes and aquatic habitat; protecting salmonid resources. [Pre-requisite: Lower Division GE Area B Physical Universe Requirement, or IA. Weekly: 3 hrs lect, 3 hrs lab.]

WSHD 333. Wildland Water Quality [3]. Evaluation and management of non-point source effects on wildland streams (e.g., sedimentation, stream heating, and habitat change) from range

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**Notes:**

DCG diversity & common ground; d domestic; n non-domestic; GE general ed; IA instructor approval; lect lecture; prereq prerequisite; rec recommended preparation; rep repeatable for credit

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2021-2022 Humboldt State University Catalog

Watershed Management 293
and forest management activities. [Pre-requisite: CHEM 107. Weekly: 3 hrs lect. Rep.]

**WSHD 424. Watershed Hydrology** (3). Hillside and fluvial hydrology. Water quality. Watershed management: analysis, planning, cumulative effects. [Pre-requisite: WSHD 310 or IA. Weekly: 2 hrs lect, 3 hrs lab.]

**WSHD 458. Climate Change & Land Use** (3). Implications of climate change for terrestrial and aquatic resources. Overview of projected shifts in weather and climate. Influence of land use decisions on global carbon cycle in forests, agriculture and wetlands. [Pre-requisite: BOT 105 or BIOL 105, CHEM 107 or CHEM 109.]

**GRADUATE**

**WSHD 524. Advanced Watershed Hydrology** (3). Meets jointly with WSHD 424. Students enrolled in WSHD 524 are expected to carry out additional independent analyses of watershed hydrology topics and deliver a lecture on an independent topic. [Pre-requisite: WSHD 310 or IA. Weekly: 2 hrs lect, 3 hrs lab.]

**WSHD 558. Advanced Climate Change & Land Use** (3). Meets jointly with WSHD 458. Students enrolled in WSHD 558 are expected to carry out additional independent analyses of climate change and land use and deliver a lecture on an independent topic. [Pre-requisite: CHEM 107 or CHEM 109, BOT 105 or BIOL 105.]

**WSHD 685. Forest Hydrology Seminar** (1-2). Review of research and literature for forest hydrology subjects. May include presentations by class members or resource people. [CR/NC. Pre-requisite: WSHD 310 (C) or IA. Fee possible. Rep.]

**Wildlife**

**LOWER DIVISION**

**WLDF 111. Introduction to Wildlife** (1). Introduction to the scope of the wildlife management & conservation fields: animals involved, founding scientific principles, current issues, career paths and guest speakers. [CR/NC. Rep.]


**WLDF 244. Wildlife Policy & Animal Welfare** (1). Roles of policy, values, ethics, and animal welfare in research and the management of wildlife. Review relevant laws, with emphasis on Animal Welfare Act. [CR/NC.]

**UPPER DIVISION**

In all classes, weekend trips may substitute for some scheduled labs, lectures, or discussions. Labs may begin before 8:00 A.M. and last more than three hours, allowing for travel.

**WLDF 300B. Wildlife Ecology & Management** (3). Important wildlife habitats and their characteristics, plants, animals. Identification, life histories, and ecology of important species. Scientific principles upon which field is founded. [Pre-requisite: lower division science GE for non-majors; may not count for credit by majors.]

**WLDF 301. Principles of Wildlife Management** (3). Plant / animal ecology; population dynamics, philosophy. [Pre-requisite: MATH 101T or MATH 102, WLDF 210 or ESM 105; BIOL 105 or BOT 105 or ZOOL 110. Weekly: 2 hrs lect, 1 hr disc./quiz; or 3 hrs lect; GE B.]

**WLDF 309. Case Studies in Environmental Ethics** (3). Human influence on distribution of world’s fauna. Ethical perspectives. [Pre-requisite: completed lower division GE area B. Rep twice; multiple enrollments in term. GE B; GE C; GE D.]

**WLDF 311. Wildlife Techniques** (4). Management and research techniques. [Pre-requisite: WLDF 244, WLDF 301, STAT 109 or equivalent; or IA. Weekly: 2 hrs lect, 1 hr disc, 3 hrs lab.]

**WLDF 365. Ornithology** (1). Classification, life histories, ecology, behavior, and special adaptations of birds. Identification in field and lab. [Pre-requisite: BIOL 105 and ZOOL 110, or their equivalents. Weekly: 2 hrs lect, 3 hrs lab.]

**WLDF 420. Wildlife Management (Waterfowl)** (3). Life histories, ecology, behavior, management of waterfowl and allied species. [Pre-requisite: WLDF 311; WLDF 365. Weekly: 2 hrs lect, 3 hrs lab.]

**WLDF 421. Wildlife Management (Upland Game)** (3). Life histories, ecology, management of upland game/allied species. [Pre-requisite: WLDF 311 or IA. Rec: WLDF 365. Weekly: 2 hrs lect, 3 hrs lab.]

**WLDF 422. Wildlife Management (Mammals)** (3). Life histories, ecology, management. [Pre-requisite: WLDF 311, ZOOL 356, or IA. Weekly: 2 hrs lect, 3 hrs lab.]


**WLDF 426. Field Trip** (1-3). Group tour of important wildlife management developments and/or wildlife and their habitats. [Pre-requisite: WLDF 311 or IA.]

**WLDF 430. Ecology & Management of Wetland Habitats for Wildlife** (3). Historical, ecological, and management implications of manipulating wetland habitats to benefit wildlife. [Pre-requisite: WLDF 311 or IA. Weekly: 2 hrs lect, 3 hrs lab.]

**WLDF 431. Ecology & Management of Upland Habitats for Wildlife** (3). Theoretical and applied considerations for managing upland habitats to benefit wildlife species. [Pre-requisite: WLDF 311 or IA. Weekly: 2 hrs lect, 3 hrs lab.]

**WLDF 450. Principles of Wildlife Diseases** (3). Role of disease in wildlife populations; host-parasite relationships; strategies in controlling diseases. [Pre-requisite: BIOL 105, WLDF 301, ZOOL 110, or their equivalents. Weekly: 2 hrs lect, 3 hrs lab.]

**WLDF 460. Conservation Biology** (3). Endangered species management, reserve design, conservation genetics, related concepts. [Pre-requisite: WLDF 301 (BIOL 330 may substitute), or IA.]


**WLDF 468. Spatial Wildlife Ecology** (3). Methods and theory for studying spatial wildlife relationships; home range analysis; habitat selection and distribution models; corridor modeling and connectivity. [Pre-requisite: WLDF 311, and GSP 270, or IA. Weekly: 2 hrs lect, 3 hrs lab.]

**WLDF 470. Animal Energetics** (3). How mammals and birds acquire, conserve, and exploit energy and other resources. Microclimates; relationships to habitat management. [Pre-requisite: BIOL 105, WLDF 311; or IA. Rec: ZOOL 310. Weekly: 2 hrs lect, 3 hrs lab.]

**WLDF 475. Wildlife Ethology** (3). Behavior of vertebrates. Relationships between animal behavior and wildlife management/research. [Pre-requisite: WLDF 311 or equivalent, or IA. Weekly: 2 hrs lect, 3 hrs lab.]


**WLDF 480. Selected Topics in Wildlife Management** (1-3). [Pre-requisite: IA. Lect./lab as appropriate. Lab sections CR/NC. Rep.]

**WLDF 482. Wildlife Conclave** (1). Preparation for student competitions in discipline of wildlife management and conservation; research presentation, professional development, networking. [Wildlife majors only, CR/NC. Rep 7 times.]


**WLDF 490. Honors Thesis** (3). Independent research conducted under faculty supervision. [Pre-requisite: WLDF 311 and GPA 3.0 or higher. Must take in last semester or IA.]

**WLDF 492S. Senior Project, Service** (3). Independent service learning with a professional partner engaged in wildlife management and conservation. Coursework includes pre- and post-service reflection, report writing, and professional presentation. [Pre-requisite: WLDF 311, senior standing, and IA. Rec: at least one additional 400-level WLDF course.]

**WLDF 495. Senior Project** (3). Independent research, including proposal writing, fieldwork, and completion of a scientific paper. [Pre-requisite: sustainability-related; activ activity; (C) may be concurrent; coreq: prerequisite(s); CR/NC mandatory credit; no credit: DA dept approval; disc discussion;
DRAFT

Women's Studies

LOWER DIVISION

**WS 106. Introduction to Women's Studies (3)**. Experiences and perspectives of women of different nationalities, social classes, sexualities, ages, and other points of intersection with gender. [DCG-d. GE D.]

**WS 107. Women, Culture, History (3)**. Trace US women's movements [of different ethnicities, races, and sexualities] as they relate to international movements. Humanist/anthropological approach; consider artistic expressions as well as original documents. [DCG-d. GE C.]

**WS 280. Selected Topics in Women's Studies (1-4).** [Rep.]

UPPER DIVISION

**WS 300. Psychology of Women (3)**. Individual and social characteristics and roles. Biological and environmental determinants of women's psychological development, including sex differences. Critique psychological theories and research. [DCG-d. GE D.]

**WS 303. Anticolonial Women's Movements (3)**. Explores history and diversity of anticolonial women's movements. Examines decolonizing and resistive (neo)colonialism, nationalism, and globalization. Analyzes organizing strategies, transnational networks, politics of representation, and local and global relations of privilege/oppression. [DCG-n. GE D.]

**WS 306 / FREN 306 / GERM 306 / SPAN 306. Sex, Class & Culture: Gender & Ethnic Issues in International Short Stories (3)**. Gender and ethnic issues in French, German, and Spanish short stories by and about women. Readings, lectures, and discussions entirely in English. [Pre-requisite: junior standing or greater. Rep. DCG-n. GE C.]

**WS 308B-C / ENGL 308B-C. Women in Literature (3)**. Works by women and men. How literature in various historical periods reflects cultural conditions and attitudes about women. How feminist movement relates to these issues. [WS 308B (DCG-d); WS 308C (DCG-n). GE C.]

**WS 309B / COMM 309B. Gender & Communication (3)**. From the perspectives of the sciences, social sciences, and arts/humanities, critique relationship of gender to communication. [DCG-d, GE C, GE D.]

**WS 315. Sex, Gender & Globalization (4)**. Examine crossculturally the diversity of relations of sex and gender: Transformation of gender relations through colonial rule, nationalist movements, and globalization of the economy. [DCG-n.]

**WS 316 / SOC 316. Gender & Society (4)**. Nature of gender dynamics linking personal experiences to the structure and functioning of institutions, to cultural/subcultural aspects of society, and to interests of the powerful. [DCG-d.]

**WS 317 / ANTH 317. Women & Development (4)**. Role of Third World women in domestic economies and wider political arenas. Focus on paradigm of "development" and differing cultural meanings of household and family.

**WS 318 / EDUC 318. Gay & Lesbian Issues in Schools (3)**. Explores the ways in which K-12 public education responds to the open inclusion of gay, lesbian, bisexual, and transgender students, teachers, and parents. Special focus on topics such as homophobia in girl's sports, gender non-conforming sports, and teachers' decisions to be closeted or openly gay. [DCG-d.]

**WS 419 / PSYC 419. Family Violence (3)**. Explores forms of family violence, including domestic violence, child abuse, elder abuse, and animal cruelty. Theories explaining physical, sexual, and emotional violence, as well as successful prevention and intervention programs. [Pre-requisite: PSYC 104.]

**WS 320. Act to End Violence Seminar (3)**. Transform our campus communities so that sexualized violence is an unthinkable act. Readings, group project. Focus rotates: grant writing, peer education, assessment of prevention education. [Rep.]


**WS 340. Ecofeminism (3-4)**. Plurality of voices making up ecofeminism; theoretical, political, and spiritual dimensions. [DCG-n.]

**WS 350. Health & Body Politics (4)**. What constitutes “normal” versus “abnormal” bodies? How are disability justice, trans* activists, and intersectional feminists working to create a more just world for every-BODY? Examines ableism, genderism/transphobia at intersection of other systems of injustice. [DCG-d.]

**WS 370. Queer Women's Lives (3-4)**. Explores research on sexual minority identity development, queer women's sexuality; love relationships, family models, and health issues. Analysis of intersections of race, gender, class, and sexuality in queer women's lives.

**WS 436 / PSYC 436. Human Sexuality (3)**. Physiological, psychological, and sociological aspects of human sexual behavior. From conception and contraception to attitudes and aberrations. Interdisciplinary approaches as appropriate.

**WS 465B / ENGL 465B / ES 465B. Multicultural Issues in Literature/Languages (4)**. Themes, genres, figures, theories, or movements in literary or linguistics study in relation to issues of ethnicity and/or gender. [Pre-requisite: ENGL 320. Rep. DCG-d.]

**WS 465C / ENGL 465C / ES 465C. Multicultural Issues in Literature/Languages (4)**. Themes, genres, figures, theories, or movements in literary or linguistics study in relation to issues of ethnicity and/or gender. [Pre-requisite: ENGL 320. Rep. DCG-n.]

**WS 480. Selected Topics in Women's Studies (1-5)**. Interdisciplinary subjects and issues. [Rep.]

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*DCG diversity & common ground; d domestic; n non-domestic; GE general ed; IA instructor approval; lect lecture; prereq prerequisite; rec recommended preparation; rep repeatable for credit*
WS 485. Seminar in Feminist Studies [3]. Capstone course on selected theme illustrating the transforming potential of feminist perspectives in personal, social and political contexts. Guest speakers; diverse applications. [Rep.]

WS 499. Directed Study [1-3]. Pursue own topic in consultation with faculty. [Rep.]


**World Languages & Cultures**

*Also see Chinese, French, German, and Spanish.*

**LOWER DIVISION**

WLC 110. Language Laboratory [1]. Must be taken with first and second year language courses. Self-directed, subscription-based online language course. [Rep 3 times. Co-requisite: WLC 120.]

WLC 120. Elementary Language [1-5]. Develop basic skills in a language not regularly offered by department. [Co-requisite: WLC 110. Rep.]

WLC 199. Introduction to Language [1-3]. Independent supervised study to acquire skill in a language (other than English) not offered by department. [Pre-requisite: IA. Rep.]

**UPPER DIVISION**

WLC 480. Special Topics [1-4]. Topics from a multicultural or multilanguage perspective. [Pre-requisite: IA. Rep.]

**Zoology**

**LOWER DIVISION**

ZOOL 110. Introductory Zoology [4]. Structure, function, evolution, and diversity of major groups of animals. [Pre-requisite: BIOL 105. Weekly: 3 hrs lect, 3 hrs lab.]

ZOOL 113. Human Physiology [4]. Physiological mechanisms of human body. Emphasis: organ level of integration. No credit toward a major in biology, botany, or zoology. [Pre-requisite: BIOL 104 or BIOL 105 with a grade of C- or higher; or equivalent. Intended for kinesiology and child development majors. Weekly: 3 hrs lect, 3 hrs lab.]

ZOOL 188. Supplemental Instruction [1]. Collaborative work for students enrolled in Introductory Zoology. [CR/NC. Rep.]

ZOOL 270. Human Anatomy [4]. Gross and microscopic anatomy of human body. Demonstrations on cadavers; microscopic work. Intended for Kinesiology and Pre-Professional Health students. [Weekly: 2 hrs lect, 6 hrs lab.]

**UPPER DIVISION**

ZOOL 310. Animal Physiology [4]. Comparative organ system physiology of animals. Adaptive strategies. [Pre-requisite: BIOL 105, ZOOL 110, CHEM 109, PHYX 106 or PHYX 109; all with grades of C- or higher: Weekly: 2 hrs lect, 6 hrs lab.]

ZOOL 312. Human Physiology [4]. Physiological chemistry, cell physiology, and physiology of major organ systems of the human body. [Pre-requisite: BIOL 105, and PHYX 118 or PHYX 107 or PHYX 110, all with grades of C- or higher: Rec. ZOOL 110. Weekly: 3 hrs lect, 3 hrs lab.]

ZOOL 314. Invertebrate Zoology [5]. Comparative functional morphology, life histories, and phylogeny of invertebrates. [Pre-requisite: BIOL 105 and ZOOL 110; all with grades of C- or higher: Weekly: 3 hrs lect, 6 hrs lab.]


ZOOL 325 / PSYC 325. Advanced Behavioral Neuroscience [4]. Principles of behavioral neuroscience are reviewed, and then selected topics are covered in detail through lectures and reading original research articles. Required labs provide hands-on experience. [Pre-requisite: PSYC 242 and PSYC 321 or BIOL 350 or ZOOL 310. Weekly: 3 hrs lect, 2 hrs lab.]

ZOOL 354. Herpetology [4]. Biology, classification, anatomy, distribution, and life histories of amphibians and reptiles. [Pre-requisite: BIOL 105 and ZOOL 110; all with grades of C- or higher: Weekly: 2 hrs lect, 6 hrs lab.]

ZOOL 356. Mammalogy [3]. Comparative mammalian biology. Systematics, morphology, behavior, reproduction, physiology, ecology, zoogeography. [Pre-requisite: BIOL 105 and ZOOL 110; all with grades of C- or higher: Weekly: 2 hrs lect, 3 hrs lab.]

ZOOL 358. General Entomology [4]. Classification, identification, anatomy, physiology, ecology, behavior; control of insects. [Pre-requisite: BIOL 105 and ZOOL 110; all with grades of C- or higher: Weekly: 2 hrs lect, 6 hrs lab/field trip.]

ZOOL 370. Comparative Anatomy of the Vertebrates [4]. Anatomy of organs/systems of various vertebrate classes and cephalochordates. Evolutionary derivations; adaptive significance. [Pre-requisite: BIOL 105 and ZOOL 110; all with grades of C- or higher: Weekly: 2 hrs lect, 6 hrs lab.]


ZOOL 480 / 480L. Selected Topics in Zoology [1-5]. Topics in response to current advances and as demand warrants. [Pre-requisite: IA. Rep once with different topic and instructor.]

**GRADUATE**


ZOOL 552. Advanced Invertebrate Zoology [3]. Typically focuses either on a particular taxon (Crustacea, Mollusca) or special field [behavior, systematics, functional morphology, feeding strategies]. [Pre-requisite: ZOOL 314 or equivalent. Weekly: 2 hrs lect, 3 hrs lab.]


ZOOL 560. Advanced Mammalogy [4]. Assigned readings; field and lab investigations. [Pre-requisite: ZOOL 356. Weekly: 2 hrs lect, 6 hrs lab.]

ZOOL 580 / 580L. Selected Topics in Zoology [1-3]. Topics based on current advances and as demand warrants. [Pre-requisite: grad standing and IA. Rep once.]

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**Environmental & Community: Gender, Race, Class**

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296 **World Languages & Cultures** 2021-2022 Humboldt State University Catalog