

Requirement Group: Prerequisites: ACCT 210, ACCT 220

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Components:    Lecture
Attributes:    Languages and Cultures, Social Perspectives
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Channel Islands - Academic Programs - Subject: Anthropology

ANTH 322(3) Course ID:000142 01-JAN-1901

World Cultures: North America

This course examines the development of Native American peoples and cultures as they adapted to their environments. The environmental history of the last glacial and post-glacial periods will be examined to provide a backdrop for human history. Using archaeological, historical, and ethnographic sources, the cultural history of these peoples will be traced from antiquity to the present, to provide the student with a broad context for understanding the region.

Components: Lecture
Attributes: Social Perspectives

ANTH 323(3) Course ID:000143 01-JAN-1901

World Culture: California to the 1850s

This course examines the development of Native American peoples and cultures in California as they adapted to the diverse environments there. The environmental history of the last glacial and post-glacial periods will be examined to provide a backdrop for human history. Using archaeological, historical, and ethnographic sources, the culture and history of California's Native Americans will be traced from antiquity to the 1850s. The impact of Spanish exploration, colonization, and the mission system will be traced from the perspectives of both the Native Americans and their colonizers.

Components: Lecture
Attributes: Social Perspectives

ANTH 330(4) Course ID:000144 01-JAN-1901

Ecology and the Environment

Ecological characteristics of natural ecosystems and basic effects of human society upon those systems. Plant and animal distribution patterns in relation to past and present physical and biotic factors. Issues of resource management, population, food production, global environmental problems will also be emphasized to explore future directions. A lab fee is required.

Components: Lecture, Laboratory
Same As Offering: BIOL 330
Attributes: Life Science - Biology, Chemistry, Biochemistry, Physical Sciences - Physics, Geology, Earth Sci

ANTH 332(3) Course ID:000304 01-JAN-1901

Population and Resource Constraints

This human ecology course places humans into the environment in historical and global contexts. Discusses systems theory as it applies to human adaptation to the environment. Studies the relations between political power, ideology, and resources, integrating concepts from ecology with those from social sciences. Theories and forecasts of human population growth and migration among regions and cultures. Social and environmental impacts of population and age distribution. Natural resource constraints on growth. Topics from land development, resource planning, environmental quality, politics, economic growth, conflicts and wars.

Components: Lecture
Same As Offering: ESRM 332
Attributes: Social Perspectives

ANTH 333(3) Course ID:000148 01-JAN-1901

Civilizations of an Ancient Landscape: World Archaeology

Traces the relationship between the physical geography and the development of ancient civilizations in Pre-Columbian America, Africa, Asia, and Europe, beginning with the post-glacial period and ending with the rise of feudalism in Europe and Japan. The change from hunting and gathering groups to sedentary agriculturalists and pastoralists giving rise to later complex social organizations. Art, architecture, science, religion, economic trade and social systems are included.

Components: Lecture
Attributes: Social Perspectives

ANTH 334(3) Course ID:000150 01-JAN-1901

Wars and Conflicts in the Modern World

Cross-cultural perspectives on the development of the modern world in the future. Can the Earth sustain an American style culture for everyone? How do Third and Fourth World countries view the developed countries? Can conflicts over resources be resolved peacefully? This course examines war and terrorism in the context of resources and modernity.

Components: Lecture
Attributes: Social Perspectives

Channel Islands - Academic Programs - Subject: Anthropology

ANTH 341(3) Course ID:000152 01-JAN-1901

Culture and Personality

This course provides a cross-cultural perspective on the relationships between culture and personality. The nature/nurture debate is examined in different cultures. Team taught with psychology.

Components: Lecture**Same As Offering:** PSY 341**Attributes:** Social Perspectives, Human Psychological & Physiological Perspectives

ANTH 343(3) Course ID:000153 01-JAN-1901

Anthropology of Organizations

Anthropological perspective on human organizations in terms of communication, spatial relations, product development, technology, marketing, and group behavior. Explores principles of effectively organizing and directing work groups.

Components: Lecture**Same As Offering:** BUS 343**Attributes:** Social Perspectives

ANTH 345(3) Course ID:000154 01-JAN-1901

Bioanthropology: Human Evolution and Diversity

Human biological evolution from the African savannah of 5 million years ago to the present, focusing upon adaptation to environmental conditions, disease, and diet. Includes segments on ecology, evolutionary theory, genetics, natural selection, non-human primates. Discusses the concept of race from an anthropological perspective. Includes issues of speciation and race, adaptation to cold, heat, desert, tropics, diseases. Compares ethnicity vs. race.

Components: Lecture**Attributes:** Life Science - Biology, Chemistry, Biochemistry

ANTH 346(3) Course ID:000156 01-JAN-1901

Scientific and Professional Ethics

Discussion of ethical issues and societal challenges derived from scientific research and professional activities. Examines the sources, fundamental principles, and applications of ethical behavior; the relationship between personal ethics and social responsibility of organizations; and the stakeholder management concept. Applies ethical principles to different types of organizations: business, non-profits, government, healthcare, science/technology, and other professional groups. Topics also include integrity of scientific research and literature and responsibilities of scientists to society, intellectual property, ethical practices in professional fields, ethical dilemmas in using animal or human subjects in experimentation, gene cloning, animal cloning, gene manipulation, genetic engineering, genetic counseling, and ethical issues of applying biotechnology in agricultural fields. Emphasizes cases to explore ethical issues.

Components: Lecture**Same As Offering:** BIOL 346, MGT 346, CHEM 346, MATH 346**Attributes:** Social Perspectives

ANTH 443(3) Course ID:000169 01-JAN-1901

Medical Anthropology: Cross-Cultural Perspectives on Health and Healing

This course provides a cross-cultural perspective on human health issues. Uses biological, cultural, and behavioral approaches to understand the concepts of diseases and their treatment, ethnoscience, health, and alternative medicine placed in a global perspective.

Components: Lecture

ANTH 483(3) Course ID:000170 01-JAN-1901

Qualitative Research Methods in the Social Sciences

This course provides the student with an understanding of how social scientists collect and analyze data. Explores methods and procedures used in anthropology research, including creating a research design, interviewing, cross-verifying data, and interpreting data. This course also details the various methods employed by ethnographers, folklorists, and oral historians in collecting oral testimony in a structured, systematic method. Particular attention is given to ethical and legal issues.

Components: Lecture**Same As Offering:** PSY 483

ANTH 490(3) Course ID:000171 01-JAN-1901

Seminar in Anthropology

This seminar explores a different topic each term. Students may enroll up to four times in different seminars.

Components: Seminar

Channel Islands - Academic Programs - Subject: Anthropology

ANTH 492(3) Course ID:000172 01-JAN-1901

Service Learning/Internship

Enrollment in this course is with permission of faculty member in charge. Individual internship through service learning.

Components: Lecture

ANTH 494(3) Course ID:000173 01-JAN-1901

Independent Study Research

Individual contracted study/research on topics selected by the student for further study. Enrollment in this course is with permission of faculty member in charge.

Components: Independent Study

ANTH 499(3) Course ID:000175 01-JAN-1901

Capstone Project

This course is an interdisciplinary experience in which students from diverse disciplines and majors work in teams, contributing their expertise to a community-based group project.

Components: Lecture

Requirement Group: Prerequisites: Senior standing

Channel Islands - Academic Programs - Subject: Art

ART 100(3) Understanding Fine Art Processes	Course ID:000177	01-JAN-1901
Entry level experience for the non major. This course integrates elements of drawing, painting, sculpture and mixed media techniques. Students gain an understanding of the function of the Fine Arts in everyday life through participation in the artistic process. Not available for Art major credit. A lab fee is required.		
Components:	Lecture, Laboratory	
Attributes:	Fine Art Courses	

ART 102(3) Children's Art Media and Methods	Course ID:000179	01-JAN-1901
Hands-on creation of artistic projects emphasize the importance of art in the child's development. Projects explore basic concepts and materials leading to the student's development of primary skills and an aesthetic appreciation for the creative process. A lab fee is required.		
Components:	Lecture, Laboratory	
Attributes:	Fine Art Courses	

ART 105(3) Drawing and Composition	Course ID:000180	01-JAN-1901
Basic fundamentals of drawing are explored through the use of various techniques and media. Investigations into line, value, perspective and composition as related to surface and pictorial space is also investigated.		
Components:	Laboratory	

ART 106(3) Color and Design	Course ID:000181	01-JAN-1901
Explorations in basic color theory are conducted within two-and three-dimensional design contexts. Visual elements including line, shape, form and texture are explored along with elements of color interaction, harmony and dissonance within a variety of visual motifs.		
Components:	Laboratory	

ART 107(3) Life Drawing	Course ID:000182	01-JAN-1901
The study of the human figure and its representation depicted through gesture, contour value and volume. Anatomy, proportion, foreshortening and structure are explored through observation of props and live models.		
Components:	Laboratory	

ART 108(3) Visual Technologies	Course ID:000184	01-JAN-1901
An introductory survey of visual technologies commonly used by artists and designers. Projects explore software applications as they relate to current methods of digital art production. Emphasis is on the development of fundamental computer skills and an understanding of the relationship between digital media and visual design. A lab fee is required.		
Components:	Lecture, Laboratory	

ART 110(3) Prehistoric Art to the Middle Ages	Course ID:000185	01-JAN-1901
Survey of the history of art, artifacts and architecture from the Prehistoric era through the Gothic period. The examination of cultural and conceptual contexts will trace the early development of Western artistic traditions.		
Components:	Lecture	
Attributes:	Fine Art Courses	

ART 111(3) Renaissance to Modern Art	Course ID:000186	01-JAN-1901
Survey of the history of art and architecture from the European Renaissance through the Modern Art. Cultural and conceptual contexts will examine the evolution of the art object as a form of Western cultural expression.		
Components:	Lecture	
Attributes:	Fine Art Courses	

Channel Islands - Academic Programs - Subject: Art

ART 112(3) Arts of the Eastern World Survey of the painting, architecture and crafts of India, China, Japan and Southeast Asia. An examination of artistic, cultural, and historical events explore the exchange of influences and ideas related to Eastern cultures. Components: Lecture Attributes: Fine Art Courses	Course ID:000187	01-JAN-1901
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ART 201(3) Painting An introduction to basic painting materials and techniques. Experiments in representational and abstract painting will explore oil, acrylic, and water-based media. Particular emphasis will be on the development of fundamental skills and the understanding of color, shape, surface and pictorial structure. Components: Laboratory Requirement Group: Prerequisites: ART 105, ART 106, ART 107	Course ID:000189	01-JAN-1901
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ART 202(3) Sculpture An introduction to basic sculpture materials and techniques. Experiments in representational and abstract sculpture will explore a variety of threedimensional materials through additive and subtractive sculptural processes. Particular emphasis will be on the development of fundamental skills and the understanding of design, form and structural elements. Components: Laboratory Requirement Group: Prerequisites: ART 105, ART 106, ART 107	Course ID:000190	01-JAN-1901
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ART 203(3) Illustration An introduction to basic illustration materials and rendering techniques. Experiments in a variety of media and styles explore quash, colored pencils, pen and ink, pastels and markers. Particular emphasis is on the development of fundamental skills and concepts required to execute successful illustrations. Components: Laboratory Requirement Group: Prerequisites: ART 105, ART 106, ART 107	Course ID:000191	01-JAN-1901
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ART 204(3) Graphic Design An introduction to basic concepts in graphic design for print and electronic media. Projects incorporating traditional and digital media explore typography, layout and visual design. Particular emphasis is on the development of fundamental skills leading to the ability to communicate ideas through the use of text and visual imagery. Components: Laboratory Requirement Group: Prerequisites: ART 105, ART 106, ART 108	Course ID:000210	01-JAN-1901
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ART 205(3) Multimedia An introduction to techniques and concepts involved in the production of interactive multimedia. Projects explore basic interactive technologies utilized in the creation of digital graphics, Websites and computer game designs. Components: Laboratory Requirement Group: Prerequisites: ART 105, ART 106, ART 108	Course ID:000212	01-JAN-1901
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ART 206(3) Animation An introduction to basic techniques and processes involved in the production of animation. Projects include elements of concept and story development, character design, storyboarding, timing, key framing and inbetweening and cell production leading to the creation of short works in animation. Components: Laboratory Requirement Group: Prerequisites: ART 105, ART 106, ART 107, ART 108	Course ID:000213	01-JAN-1901
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ART 310(3) Two-dimensional Media and Process Studio projects explore media and methodologies in painting, drawing and other two-dimensional art forms. Assignments emphasize the integration of traditional art materials and techniques with related digital art technologies in the creation of two-dimensional art projects. Components: Laboratory Requirement Group: Prerequisites: ART 108, ART 201	Course ID:000214	01-JAN-1901
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Channel Islands - Academic Programs - Subject: Art

ART 311(3) Three-Dimensional Media and Processes Studio projects explore media and methodologies in sculpture, ceramics and other three-dimensional art forms. Assignments emphasize the integration of traditional art materials and techniques with related digital art technologies in the creation of three-dimensional art projects. Components: Laboratory Requirement Group: Prerequisites: ART 108, ART 202	Course ID:000216	01-JAN-1901
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ART 312(3) Time-based Digital Media and Processes Studio projects explore media, methodologies and artistic concepts in digital imaging, non-linear video, digital animation graphics and visual effects. Assignments emphasize the integration of traditional art techniques with digital technology in the development of computer generated imagery and animation. Projects are presented in a digital format. Components: Laboratory Requirement Group: Prerequisites: ART 108, ART 205	Course ID:000217	01-JAN-1901
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ART 313(3) Communication Design Technology Media and Processes Studio projects explore media, methodologies in graphic design and multimedia. Assignments emphasize the integration of traditional design concepts with graphic design technology in projects created for print, internet applications and multimedia presentations. Components: Laboratory Requirement Group: Prerequisites: ART 108, ART 204	Course ID:000218	01-JAN-1901
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ART 320(3) Studio Topics: Two-Dimensional Art Studio topics explore thematic approaches in the development of visual continuity and technical competency working in painting, drawing and related art processes. At this phase of study, projects focus on the integration of artistic concept, technique and proficiency in the use of two-dimensional media in the creation of individual works of art. Components: Laboratory Requirement Group: Prerequisites: ART 310	Course ID:000219	01-JAN-1901
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ART 321(3) Studio Topics: Three Dimensional Art Studio topics explore thematic approaches in the development of visual continuity and technical competency working in sculpture, ceramics and related art processes. At this phase of study, projects focus on the integration of artistic concept, technique and proficiency in the use of three-dimensional media in the creation of individual works of art. Components: Laboratory Requirement Group: Prerequisites: ART 311	Course ID:000220	01-JAN-1901
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ART 322(3) Studio Topics: Time-Based Digital Art Studio topics incorporate thematic approaches in the development of visual continuity and technical competency working in digital imaging, video compositing, digital animation and visual effects. At this phase of study, projects focus on the integration of artistic concept and technological proficiency in the creation of time-based digital art projects presented on video, CD Rom or DVD. Components: Laboratory Requirement Group: Prerequisites: ART 312	Course ID:000221	01-JAN-1901
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ART 323(3) Studio Topics: Communication Design Technology Studio topics explore thematic approaches in the development of visual continuity and technical competency working in graphic design and multimedia. At this phase of study, projects focus on the integration of artistic concept and technological proficiency in the creation of design projects for print, Websites and interactive multimedia. Components: Laboratory Requirement Group: Prerequisites: ART 313	Course ID:000222	01-JAN-1901
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Channel Islands - Academic Programs - Subject: Art

ART 326(3) **Course ID:000223** **01-JAN-1901****Digital Technologies: 3D Computer Animation**

Studio topics explore applications of digital technologies utilized in the production of 3D computer animation. Projects involve wireframe modeling, texture mapping, lighting techniques, motion sequencing and animation techniques involved in the creation of computer generated animation projects.

Components: Laboratory**Requirement Group:** Prerequisites: ART 206, ART 312

ART 330(3) **Course ID:000225** **01-JAN-1901****Critical Thinking in a Visual World**

A critical look at subjective responses and objective reasoning in the assessment of visual images that permeate every day aspects of contemporary life. Comparative studies evaluate psychological impact of corporate logos, religious iconography and secular symbolism. The genesis of cultural icons are investigated from a historical perspective in relationship to their role in a global society.

Components: Lecture**Attributes:** Fine Art Courses

ART 331(3) **Course ID:000226** **01-JAN-1901****Art and Mass Media**

The study of synergetic relationships between visual art and human communication dating back to the roots of civilization. Comparative studies in art and communication link ancient traditions to the development of contemporary mass media including print, photography, film, television and the internet.

Components: Lecture

ART 332(3) **Course ID:000227** **01-JAN-1901****Multicultural Art Movements**

A survey of the arts and crafts originating in African, Asian, Latin American, Middle Eastern and Native American cultures. Emphasis is on the understanding of traditions and historical contexts as well as the exploration of random intersections of indigenous methods and aesthetics.

Components: Lecture**Attributes:** Fine Art Courses, Languages and Cultures

ART 333(3) **Course ID:000228** **01-JAN-1901****History of Southern California Chicana/O Art**

A survey of the Southern California Chicano/a culture exploring the genesis, vitality and diversity represented in the painting, sculpture and artistic traditions of Mexican American artists. Historical movements, politics, cultural trends and Mexican folklore underlying the development of this dynamic style of art will be investigated within a variety of contexts.

Components: Lecture**Same As Offering:** HIST 333**Attributes:** Fine Art Courses, Languages and Cultures

ART 334(3) **Course ID:000230** **01-JAN-1901****The Business of Art**

Exploration into aspects of art world business including the financial activities of art consultants, private dealers, commercial galleries, public museums and international auction houses. Case studies in art marketing, gallery and museum management, contracts and commissions, as well as public image and career development will be investigated.

Components: Lecture**Same As Offering:** BUS 334**Attributes:** Fine Art Courses, Social Perspectives

ART 335(3) **Course ID:000232** **01-JAN-1901****American Ethnic Images in Novels, Film and Art**

An examination of the portrayal of ethnic groups from an interdisciplinary perspective that includes, but is not limited to, the literary, historical, and artistic modes of analysis. This course highlights the ways in which artistic works have shaped the intellectual landscape of the United States as they relate to ethnic peoples.

Components: Lecture**Same As Offering:** ENGL 335, HIST 335**Attributes:** Languages and Cultures, Social Perspectives**Requirement Group:** Prerequisites: ENGL 100

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Art**ART 338(3)** **Course ID:000234** **01-JAN-1901****Psychology of Art and Artists**

An inquiry into the mind of the artist and the psychological dynamics that underlie the creative process. Emphasis is placed on deciphering personal allegory and universal symbolism hidden within a wide range of visual and conceptual genres in painting, sculpture, film and music. The self-image of the artist will be examined from private and public viewpoints.

Components: Lecture**Same As Offering:** PSY 338**Attributes:** Fine Art Courses, Human Psychological & Physiological Perspectives**ART 420(3)** **Course ID:000250** **01-JAN-1901****Advanced Artistic Problems: Two Dimensional**

Investigations into the development of in-depth concepts, innovative into the development of in-depth concepts, innovative processes and personal artistic style. Students achieve increased artistic depth and advanced technical proficiency working in two-dimensional media leading to the development of a congruent body of work in painting, drawing and related art forms. Creation and presentation of a professional portfolio is a required component of the course work.

Components: Laboratory**Requirement Group:** Prerequisites: ART 320**ART 421(3)** **Course ID:000449** **01-JAN-1901****Advanced Artistic Problems: Three Dimensional Art**

Investigations into the development of in-depth concepts, innovative processes and personal artistic style. Students achieve increased artistic depth and advanced technical proficiency working in three-dimensional media leading to the development of a congruent body of work in sculpture, ceramics and related art forms. Creation and presentation of a professional portfolio is a required component of the course work.

Components: Laboratory**Requirement Group:** Prerequisites: ART 321**ART 422(3)** **Course ID:000252** **01-JAN-1901****Advanced Artistic Problems: Time-Based Digital Art**

Investigations into the development of in-depth concepts, innovative processes and personal artistic style. Students achieve increased artistic depth and advanced technical proficiency working in time-based digital media leading to the development of a congruent body of work in digital imaging, video, digital animation and visual effects. Creation and presentation of a professional video, CD Rom or DVD portfolio is a required component of the course work.

Components: Laboratory**Requirement Group:** Prerequisites: ART 322**ART 423(3)** **Course ID:000254** **01-JAN-1901****Advanced Artistic Problems: Communication Design Technology**

Investigations into the development of in-depth design concepts, innovative processes and individual artistic style. Students achieve increased artistic depth and advanced technical proficiency working in graphic design, computer graphics, Web design, and multimedia authoring. Creation and presentation of a professional interactive multimedia portfolio is a required component of the course work.

Components: Laboratory**Requirement Group:** Prerequisites: ART 323**ART 430(3)** **Course ID:000255** **01-JAN-1901****Modern and Contemporary Art**

From nineteenth century Impressionism, through twentieth-century Cubism, Surrealism, Abstract Expressionism and Pop Art, this course explores the gamut of concepts, periods, trends, and "isms" culminating in international Post Modernism and New Genre art of the twenty-first century.

Components: Lecture**ART 431(3)** **Course ID:000245** **01-JAN-1901****European Renaissance Literature and Art**

The Renaissance of the 15th and 16th centuries in Europe and England provided the world with a new way of looking at humankind and our surroundings. By reading the literature of this period and studying the art produced during that time, we will gain an understanding of this "rebirth" of the human spirit and a better understanding of the legacies of the Renaissance artists and writers.

Components: Lecture**Same As Offering:** ENGL 431**Attributes:** Fine Art Courses, Literature Courses**Requirement Group:** Prerequisites: Upper division standing

Course Catalog

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Channel Islands - Academic Programs - Subject: Art**ART 432(3) Course ID:000246 01-JAN-1901****Arts of the Harlem Renaissance**

The Harlem Renaissance was one of the most exciting epochs in American history. The art, literature and music produced in Harlem during the '20s and '30s has had a significant impact on American and world cultures. In this class, we will study these art forms and their historical genesis and legacy.

Components: Lecture
Same As Offering: ENGL 432, MUS 432
Attributes: Fine Art Courses, Literature Courses
Requirement Group: Prerequisites: Upper division standing

ART 433(3) Course ID:000257 01-JAN-1901**Women in the Arts**

An investigation into the historical roles and influences of women artists in Western and non-Western traditions. Women as subject matter in painting, sculpture, photography, film and video will also be explored as related to artistic, social, historical and political issues.

Components: Lecture
Attributes: Fine Art Courses, Social Perspectives
Requirement Group: Prerequisites: Upper division standing

ART 434(3) Course ID:000460 01-JAN-1901**The Museum**

Need Description

Components: Lecture

ART 489(3) Course ID:000258 01-JAN-1901**Arts Seminar**

Students interact with guest speakers, visiting artists, and industry professionals in a seminar environment. This course also affords students the opportunity to assess their training and summarize artistic achievements through projects that prepare them for a variety of careers in the arts.

Components: Seminar
Requirement Group: Prerequisites: Senior standing

ART 492(3) Course ID:000260 01-JAN-1901 Instructor Consent Required**Internship in the Arts**

Experiential study in a professional artistic environment appropriate to student's interests and artistic goals. Service learning positions are arranged by the university, instructor or student in cooperation with local community organizations or businesses. Internship positions must meet specific criteria set by the university in accordance with the mission of the university.

Components: Lecture
Requirement Group: Prerequisites: Senior standing

ART 494(1 - 3) Course ID:000262 01-JAN-1901 Instructor Consent Required**Independent Study**

Individualized student projects are created under the guidance of a sponsoring instructor. Independent field work and supervised studio work is required in the development and execution of art projects. Regular progress reports and meetings are mandatory throughout the semester. Project completion is required before receiving course credit.

Components: Independent Study
Requirement Group: Prerequisites: Senior standing

ART 499(3) Course ID:000264 01-JAN-1901 Instructor Consent Required**Arts Capstone Project**

A culminating interdisciplinary experience in which students from various Fine Arts disciplines work in groups with non-art majors and community members on projects specifically designed to meet a common goal. Activities supervised by sponsoring faculty are executed on campus and/or on-site in conjunction with community businesses or organizations.

Components: Lecture
Requirement Group: Prerequisites: Senior standing

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Biology

BIOL 100(4) Course ID:000265 01-JAN-1901

General Biology

An introduction to organismal biology, including the diversity, structure, and function of prokaryotes, protists, fungi, plants, and animals. Also includes the principles of evolution, ecology and population biology. No credit given toward the biology major. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Life Science - Biology, Chemistry, Biochemistry

BIOL 200(4) Course ID:000267 01-JAN-1901

Principles of Organismal and Population Biology

An introduction to organismal biology, including the diversity, comparative structure, organ system function, development, phylogeny, taxonomy and systematics of prokaryotes, protists, fungi, plants and animals. Discussion of the principles of evolution including speciation and natural selection, the environmental impact and ecosystem interaction of plants and animals, the behavior of animals, population genetics and population biology. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Life Science - Biology, Chemistry, Biochemistry

BIOL 201(4) Course ID:000269 01-JAN-1901

Principles of Cell and Molecular Biology

This course will cover principles and applications of basic chemistry, biological macromolecules, prokaryotic and eucaryotic cell structure and function, homeostasis, metabolism including both respiration and photosynthesis, cell cycling, signal transduction, Mendelian genetics, molecular genetics including transcription and translation, and a brief introduction to virology and immunology. The philosophy of science, scientific method and experimental design are foundational to the course. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Life Science - Biology, Chemistry, Biochemistry**Requirement Group:** Prerequisites: CHEM 121and BIOL 200 (not required for students in Liberal Studies, Teaching & Learning)

BIOL 202(4) Course ID:000271 01-JAN-1901

Biostatistics

Use of probability and statistics in the description and analysis of biological data collected from laboratory and or field experiments.

Components: Laboratory**Same As Offering:** MATH 202

BIOL 210(4) Course ID:000272 01-JAN-1901

Human Anatomy and Physiology I

Gross and microscopic anatomy of the human body with integrated physiological functions of the nine body organ systems studied from organ system through cellular levels of organization including basic chemistry, cell metabolism, acid-base relationships, membrane function, basic genetics, alleles and inherited disorders. A lab fee is required.

Components: Lecture, Laboratory**Requirement Group:** Prerequisites: BIOL 100

BIOL 211(4) Course ID:000273 01-JAN-1901

Human Anatomy and Physiology II

Continuation of BIOL 210. A lab fee is required.

Components: Lecture, Laboratory**Requirement Group:** Prerequisites: BIOL 210

BIOL 212(3) Course ID:000275 01-JAN-1901

Neurobiology and Cognitive Science

Principles of brain organization and function underlying behavior. Topics include neuroanatomy and physiology of language, vision, sexual behavior, memory and abnormal behavior.

Components: Lecture**Same As Offering:** PSY 212**Attributes:** Life Science - Biology, Chemistry, Biochemistry, Human Psychological & Physiological Perspectives**Requirement Group:** Prerequisites: BIOL 100

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Biology

BIOL 300(4) Course ID:000277 01-JAN-1901

Cell Physiology

Detailed study of the organization and functioning of cells and cellular organelles at the cellular and molecular levels, emphasizing experimental approaches and structural and functional relationships and their regulation and control. Topics include macromolecules, membrane phenomena, metabolism, enzyme kinetics, and cellular events associated with excitable cells and tissues. Individual critique on a current aspect of cellular and molecular biology required. A lab fee is required.

Components: Lecture, Laboratory

Requirement Group: Prerequisites: CHEM 122; CHEM 311; CHEM 312; BIOL 201

BIOL 301(4) Course ID:000279 01-JAN-1901

Microbiology

Study of microorganisms of the environment, including disease-causing organisms, their structures and functions and their interactions to their host animals and the environment. A lab fee is required.

Components: Lecture, Laboratory

Requirement Group: Prerequisite: CHEM 122, BIOL 201

BIOL 302(3) Course ID:000280 01-JAN-1901

Genetics and Evolution

Principles of classical transmission genetics, population genetics and evolution, with an introduction to modern molecular genetics.

Components: Lecture

Requirement Group: Prerequisite: CHEM 122, BIOL 201

BIOL 310(4) Course ID:000281 01-JAN-1901

Animal Biology and Ecology

Animal adaptation and diversity and their relationship to the development of evolutionary theory and the environment. Identification of common invertebrate and vertebrate animals. A lab fee is required.

Components: Lecture, Laboratory

Requirement Group: Prerequisites: BIOL 100 or BIOL 201

BIOL 311(4) Course ID:000284 01-JAN-1901

Plant Biology and Ecology

A general introduction of diverse structures and functions of plants and their relationship to the environment. Identification of common, local native plants and plant communities, uses of native plants by Native Americans and human and environmental impacts on native plant communities. A lab fee is required.

Components: Lecture, Laboratory

Requirement Group: Prerequisites: BIOL 100 or BIOL 201

BIOL 312(4) Course ID:000285 01-JAN-1901

Marine Biology

Overview of complexity of marine life including marine plants and animals and the processes that underlie their distribution and abundance in open oceans, coastal regions, estuaries and wetlands. Diverse interactions of organisms in the intertidal zone, over the continental shelves and in the open oceans. A lab fee is required.

Components: Lecture, Laboratory

Requirement Group: Prerequisites: BIOL 201

BIOL 330(4) Course ID:000144 01-JAN-1901

Ecology and the Environment

Ecological characteristics of natural ecosystems and basic effects of human society upon those systems. Plant and animal distribution patterns in relation to past and present physical and biotic factors. Issues of resource management, population, food production, global environmental problems will also be emphasized to explore future directions. A lab fee is required.

Components: Lecture, Laboratory

Same As Offering: ANTH 330

Attributes: Life Science - Biology, Chemistry, Biochemistry, Physical Sciences - Physics, Geology, Earth Sci

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Channel Islands - Academic Programs - Subject: Biology

BIOL 331(2) Course ID:000289 01-JAN-1901

Biotechnology in the 21st Century

Presentation of recent advances in biotechnology and discussion of societal implications. Topics include applications in basic research, medicine, Topics include applications in basic research, medicine, agriculture, consumer products and warfare. No credit given toward the biology major.

Components: Lecture**Attributes:** Life Science - Biology, Chemistry, Biochemistry

BIOL 332(2) Course ID:000290 01-JAN-1901

Cancer and Society

The biological, clinical and psychological nature of cancer and its impact on society from perspectives of medical researchers and physicians. No credit given toward the biology major.

Components: Lecture

BIOL 333(2) Course ID:000324 01-JAN-1901

Emerging Public Health Issues

Discussion of emerging infectious diseases and other health related issues with global concerns such as AIDS, tuberculosis, sexually transmitted diseases, cardiovascular diseases. Animal and bird diseases which may be transmitted to people, food and blood safety issues, environmental public health hazards, immigration and public health issues, potential biological weapons and their impact on human and animal populations in the world and the ecosystem.

Components: Lecture**Attributes:** Life Science - Biology, Chemistry, Biochemistry, Human Psychological & Physiological Perspectives

BIOL 343(3) Course ID:000329 01-JAN-1901

Forensic Science

A survey of the various chemical and biological techniques used in obtaining and evaluating criminal evidence. Topics include: chromatography; mass spectrometry (LC-MS, GC-MS); atomic absorption spectrometry; IR, UV, fluorescence, and X-ray spectroscopies; fiber comparisons; drug analysis; arson/ explosive residue analysis; toxicological studies; psychological profiling; blood typing; DNA analysis; population genetics; firearm identification; and fingerprint analysis. A lab fee is required.

Components: Lecture, Laboratory**Same As Offering:** CHEM 343**Attributes:** Life Science - Biology, Chemistry, Biochemistry

BIOL 346(3) Course ID:000156 01-JAN-1901

Scientific and Professional Ethics

Discussion of ethical issues and societal challenges derived from scientific research and professional activities. Examines the sources, fundamental principles, and applications of ethical behavior; the relationship between personal ethics and social responsibility of organizations; and the stakeholder management concept. Applies ethical principles to different types of organizations: business, non-profits, government, healthcare, science/technology, and other professional groups. Topics also include integrity of scientific research and literature and responsibilities of scientists to society, intellectual property, ethical practices in professional fields, ethical dilemmas in using animal or human subjects in experimentation, gene cloning, animal cloning, gene manipulation, genetic engineering, genetic counseling, and ethical issues of applying biotechnology in agricultural fields. Emphasizes cases to explore ethical issues.

Components: Lecture**Same As Offering:** ANTH 346, MGT 346, CHEM 346, MATH 346**Attributes:** Social Perspectives

BIOL 400(4) Course ID:000331 01-JAN-1901

Molecular Biology and Molecular Genetics

Study of informational macromolecules and how they direct molecular processes in both eukaryotic and prokaryotic cells. Topics include structure, function and regulation of the genetic material at the molecular level, gene organization, structures and functions of DNA, RNA and proteins, gene transcription and expression, RNA processing, genomics and proteomics. A lab fee is required.

Components: Lecture, Laboratory**Requirement Group:** CHEM 314 & 315, 318 or 400; BIOL 300 and BIOL 302

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Channel Islands - Academic Programs - Subject: Biology**BIOL 401(5)** **Course ID:000334** **01-JAN-1901****Biotechnology and Recombinant DNA Techniques**

Theory and practice of various biotechnologies and recombinant DNA techniques applicable to research and development, drug discovery, clinical therapies, preventative medicine, agriculture, the criminal justice system and a variety of other fields. Modern techniques in genomics and proteomics will be introduced in the laboratories. A lab fee is required.

Components: Lecture, Laboratory**Requirement Group:** Prerequisites: CHEM 318 or CHEM 400; BIOL 300 and BIOL 302**BIOL 402(3)** **Course ID:000336** **01-JAN-1901****Toxicology**

An in depth study of toxic chemicals and their interactions within the ecosystems. Topics include the origin, fate, chemical and biological detection, and quantification of pollutants and toxins and their impact on organisms at the molecular, biochemical, cellular, physiological, organismal and community levels of organization. Basic toxicology, genetic toxicology, environmental mutagenesis and the molecular basis of mutation induction will be covered.

Components: Lecture**Requirement Group:** Prerequisite: CHEM 122, BIOL 201**BIOL 410(3)** **Course ID:000122** **01-JAN-1901****Computer Application in Biomedical Fields**

Current applications of computers and data processing technology to the understanding and solving of specific problems in biomedical fields.

Components: Lecture**Same As Offering:** COMP 410**Requirement Group:** Prerequisites: BIOL 201**BIOL 420(4)** **Course ID:000338** **01-JAN-1901****Cellular and Molecular Immunology**

Study of cellular and molecular aspects of the immune system and its responses against infectious agents and/or environmental insults. Included are development of the organs and cells of the immune system, genetics of the molecules of the immune system and their functions and interactions during an immune response, immunological disorders such as immunodeficiencies, autoimmune diseases, transplantation and contemporary immunological techniques used in clinical diagnosis and other modern research and development applications. A lab fee is required.

Components: Lecture, Laboratory**Requirement Group:** Prerequisites: CHEM 122; BIOL 300**BIOL 421(3)** **Course ID:000339** **01-JAN-1901****Virology**

Study of aspects of molecular structure, genetics, and replication of viruses and other sub-viral agents such as prions and viroids, virus-host interactions, pathogenesis of viral infections, diagnostic virology and antiviral vaccines and drugs; emphasis on human pathogens.

Components: Lecture**Requirement Group:** Prerequisites: CHEM 122; BIOL 300**BIOL 422(4)** **Course ID:000341** **01-JAN-1901****Molecular Plant Physiology**

Study of principles and methods of plant physiology at molecular level combined with modern plant technology. Topics include plant tissue and cell culture, genetic engineering and transformation, plant defense and genomics and applications of DNA technology. A lab fee is required.

Components: Lecture, Laboratory**Requirement Group:** Prerequisites: CHEM 318 or 400; BIOL 311 recommended; BIOL 300**BIOL 423(3)** **Course ID:000343** **01-JAN-1901****Cellular and Molecular Neurobiology**

Study of the nervous system at cellular and molecular levels, including cellular structure of neurons and other types of neuronal cells and their functions and interactions, neurotransmitters and their functions and regulation, chemical agents and their effects on the neuronal cells and their functions and normal responses by the cells and the molecules of the nervous system and their response under adverse conditions.

Components: Lecture**Requirement Group:** CHEM 122; BIOL 212 recommended; BIOL 300

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Channel Islands - Academic Programs - Subject: Biology**BIOL 424(3) Course ID:000346 01-JAN-1901****Human Physiology**

Study of human physiology at both the cellular and organ system levels, including neurophysiology, muscle physiology, cardiovascular physiology, respiration, kidney function, hormone function and reproduction.

Components: Lecture**Requirement Group:** Prerequisites: CHEM 122; BIOL 300**BIOL 425(3) Course ID:000347 01-JAN-1901****Human Genetics**

Basic principles of human inheritance, including the transmission of genetic traits, chromosomal abnormalities and their effects, gene structure and function, pedigree analysis, gene mapping, cytogenetics, mutations and mutagenic agents, cancer genetics, molecular analysis of inherited diseases and genetically controlled phenomena in humans.

Components: Lecture**Requirement Group:** Prerequisites: CHEM 122, BIOL 300, and BIOL 302**BIOL 426(4) Course ID:000349 01-JAN-1901****Embryology**

Studies in comparative gametogenesis, morphogenesis and reproductive physiology. A lab fee is required.

Components: Lecture, Laboratory**Requirement Group:** Prerequisites: CHEM 122; BIOL 300**BIOL 427(3) Course ID:000351 01-JAN-1901****Developmental Biology**

Studies in human developmental sequences from fertilization to adolescence and examine how the developmental processes can be altered due to genetic, drug or environmental factors. Other animal systems (fly, frog, chick, mouse) will also be studied to aid in understanding anatomical, physiological, genetic and molecular mechanisms operating during gametogenesis, fertilization, cleavage, gastrulation and organogenesis.

Components: Lecture**Requirement Group:** Prerequisites: CHEM 122; BIOL 300**BIOL 428(2) Course ID:000352 01-JAN-1901****Biology of Cancer**

Principles of oncology are examined. Included are mechanisms of oncogenesis at cellular and molecular levels, characteristics of cancer, advantages and disadvantages of various therapies of cancer treatment.

Components: Lecture**Requirement Group:** Prerequisites: CHEM 122; BIOL 300**BIOL 430(3) Course ID:000354 01-JAN-1901****Research Design and Data Analysis**

Discussion of experimental design, sampling methods, data collection and methods of data analysis related to scientific fields.

Components: Laboratory**Same As Offering:** CHEM 430, MATH 430**Attributes:** Mathematics - Mathematics and Applications**Requirement Group:** Prerequisites: CHEM 121 and 122**BIOL 431(4) Course ID:000127 01-JAN-1901****Bioinformatics**

Basic computational models used in molecular biology and chemistry will be introduced. Topics include algorithms for string alignments, dynamic programming, structural superposition algorithms, computing with differential information, 3D motifs, Hidden Markov Models, phylogenetic trees, statistical/ information techniques for pattern recognition, genetic algorithms. A lab fee is required.

Components: Laboratory**Same As Offering:** COMP 431**Attributes:** Mathematics - Mathematics and Applications**BIOL 432(3) Course ID:000364 01-JAN-1901****Principles of Epidemiology and Environmental Health**

Distribution and dynamics of human health problems. Principles and procedures used to determine circumstances under which disease occurs or health prevails and to aid in managing and planning health and environmental systems. The broadened scope of epidemiology is examined through case studies and community and environmental health approach.

Components: Lecture**Requirement Group:** Prerequisite: CHEM 122, BIOL 201

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Channel Islands - Academic Programs - Subject: Biology

BIOL 490(1 - 3) Course ID:000366 01-JAN-1901

Special Topics

Group study of a selected topic, the title of which is to be specified in advance. May be repeated for credits as topics change.

Components: Lecture

Requirement Group: Prerequisites: CHEM 122; BIOL 300

BIOL 491(1 - 3) Course ID:000367 01-JAN-1901

Special Laboratory Topics

Group laboratory study of a selected topic, the title of which is to be specified in advance. May be repeated for credits as topics change. A lab fee is required.

Components: Laboratory

Requirement Group: Prerequisites: CHEM 122; BIOL 300

BIOL 492(2 - 3) Course ID:000368 01-JAN-1901

Biotech Internship

Supervised work and study in work situations involving biological research, technical skills, and service learning. Up to three units may be applied toward degree in biology program. All students are required to attend the Biology Program Senior Capstone Colloquium scheduled at the end of each semester to present their projects.

Components: Lecture

Requirement Group: CHEM 318 or 400; BIOL 400 and 401

BIOL 494(2) Course ID:000369 01-JAN-1901

Independent Research

Laboratory and/or library research in selected areas in biology conducted under the direction of a faculty member. A total of four units by taking the course twice may be applied toward graduation. All students are required to attend the Biology Program Senior Capstone Colloquium scheduled at the end of each semester to present their projects.

Components: Independent Study

Requirement Group: Prerequisite: CHEM 122 or 311 and 312, 318 or 400, BIOL 300

BIOL 497(2) Course ID:000370 01-JAN-1901

Directed Study

Reading and library research in an area of biology conducted under the direction of a faculty member in Biology. No more than two units may be applied toward graduation. All students are required to attend the Biology Program Senior Capstone Colloquium scheduled at the end of each semester to present their projects.

Components: Independent Study

Requirement Group: Prerequisites: CHEM 122; BIOL 300

BIOL 499(1) Course ID:000372 01-JAN-1901

Senior Capstone Colloquium

Oral presentation of completed or work-in-progress projects of BIOL 492, 494, or 497 courses.

Components: Lecture

Requirement Group: Prerequisites: BIOL 492, 494 or 497

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Channel Islands - Academic Programs - Subject: Business

BUS 110(3) Business Law Introduction to the legal and regulatory environment of business, emphasizing the US legal system. Topics include contracts, personal property, litigation, labor agreements and international trade. Components: Lecture	Course ID:000373	01-JAN-1901
BUS 300(3) Business Finance Need Description Components: Lecture	Course ID:000464	01-JAN-1901
BUS 320(3) Business Operations Need description Components: Lecture Attributes: Fine Art Courses	Course ID:000462	01-JAN-1901
BUS 334(3) The Business of Art Exploration into aspects of art world business including the financial activities of art consultants, private dealers, commercial galleries, public museums and international auction houses. Case studies in art marketing, gallery and museum management, contracts and commissions, as well as public image and career development will be investigated. Components: Lecture Same As Offering: ART 334 Attributes: Fine Art Courses, Social Perspectives	Course ID:000230	01-JAN-1901
BUS 340(3) Business and Money in the American Novel What is money, really? How does it work in our society and literature? These are the starting questions which will form the core of exploration as we read and discuss works of American literature. Components: Lecture Same As Offering: ECON 340, ENGL 340 Attributes: Critical Thinking, Literature Courses, Languages and Cultures	Course ID:000160	01-JAN-1901
BUS 341(3) Drug Discovery and Development How are drugs discovered? What determines the price for a drug? What is the difference between a generic and non-generic drug? These questions will be examined with an interdisciplinary approach. Topics to be covered may include the isolation of compounds from natural sources, the screening of compounds for biological activity, structureactivity relationships of drugs, computer-assisted drug design, combinatorial chemistry, bioinformatics, the FDA approval process for new drugs and the economic and business aspects of pharmaceutical development. Components: Lecture Same As Offering: ECON 341, CHEM 341 Attributes: Life Science - Biology, Chemistry, Biochemistry, Social Perspectives	Course ID:000161	01-JAN-1901
BUS 343(3) Anthropology of Organizations Anthropological perspective on human organizations in terms of communication, spatial relations, product development, technology, marketing, and group behavior. Explores principles of effectively organizing and directing work groups. Components: Lecture Same As Offering: ANTH 343 Attributes: Social Perspectives	Course ID:000153	01-JAN-1901
BUS 349(3) History of Business and Economics in North America Examines the growth and development of economies of North America since colonial times. Addresses social, ethical, economic and management issues during the development of Canada, the United States and Mexico. Analyzes the business principles underlying the growth and development of the economies. Components: Lecture Same As Offering: ECON 349, HIST 349 Attributes: Social Perspectives	Course ID:000163	01-JAN-1901

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Channel Islands - Academic Programs - Subject: Business

BUS 410(3) Special Topics in Business In-depth exploration and analysis of topics significant to the contemporary environment. Includes a major research project based on the local business community. Components: Lecture Requirement Group: Prerequisites: Senior standing	Course ID:000377	01-JAN-1901	Instructor Consent Required
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BUS 420(3) Cases in Strategy A case study seminar that integrates functional areas of business into the development and analysis of strategy and strategic planning. An emphasis will be on practical strategic solutions that could reasonably lead to success in the marketplace. Components: Lecture Requirement Group: Prerequisites: Senior standing	Course ID:000379	01-JAN-1901	Instructor Consent Required
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BUS 424(3) Business in its Social Setting Analytical and interdisciplinary investigation of the evolution and contemporary status of business, especially relative to its environment - political, social, ethical, legal and economic. The dynamic nature of these environmental elements and their inter-relationships are analyzed through case studies and research projects. Components: Lecture Attributes: Social Perspectives	Course ID:000381	01-JAN-1901	
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BUS 499(3) Capstone: Global Strategic Simulation Provides an integration of all prior business core subject matter by requiring teams of students to participate in a PC-based simulation of an ongoing (fictitious) international business. Requires decision-making under uncertainty, but within strict deadlines, competitor analysis and formal oral/written reporting of results. Also, provides interdisciplinary exposure to complex business cases via Web-based analytical tools. Components: Lecture	Course ID:000382	01-JAN-1901	
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Course Catalog

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Channel Islands - Academic Programs - Subject: Chemistry

CHEM 100(4) Course ID:000384 01-JAN-1901

Chemistry and Society

An introduction to the basic principles of chemistry and a consideration of the benefits and problems arising from applications of chemistry. Discussions of foods and food additives, drugs, plastics and other materials of everyday life, fuel sources, the atmosphere, and fresh water. Intended for the non-chemistry major. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Life Science - Biology, Chemistry, Biochemistry

CHEM 105(3) Course ID:000437 01-JAN-1901

Introduction to Chemistry

A one-semester course that introduces the basic principles and concepts in Chemistry. Topics covered include: measurements, units and unit conversion, scientific notation, stoichiometry, atomic structure, the concept of the mole, types of compounds, and problem solving. Intended for the non-chemistry major.

Components: Lecture

CHEM 110(3) Course ID:000108 01-JAN-1901

Who Done It? An Introduction to Forensics

Interdisciplinary approaches to forensic science, with lectures based on Anthropology, Art, Biology, Chemistry, Computer Science, History, Literature, Physics, Psychology, Sociology. How have fictional detectives in novels, TV, and film reflected and influenced forensics? How have scientific and archaeological methods been incorporated into crime scene analysis? How have crimes been viewed and punished through time? How have different cultures defined crimes? How do forensic specialists identify forgeries in art, cartography, and documents? How have computer scientists contributed to forensics? How are cybercrimes solved? How do psychologists profile criminals? How do biologists use DNA, pollen, seeds, and insects to solve crimes? How do chemists and physicists analyze forensic materials?

Components: Lecture**Same As Offering:** ANTH 110**Attributes:** Life Science - Biology, Chemistry, Biochemistry, Social Perspectives

CHEM 121(4) Course ID:000388 01-JAN-1901

General Chemistry I and Laboratory

An introductory chemistry course which provides an overview of the chemical and physical behavior of matter with a focus on qualitative and quantitative general inorganic, physical, and analytical chemistry. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Life Science - Biology, Chemistry, Biochemistry

CHEM 122(4) Course ID:000414 01-JAN-1901

General Chemistry II and Laboratory

An introductory chemistry course which provides an overview of the chemical and physical behavior of matter with a focus on quantitative general inorganic, physical, and analytical chemistry including kinetics and thermodynamics of reactions, gas phase and solution equilibria and qualitative aspects of radiochemistry, organic chemistry, and polymer chemistry. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Life Science - Biology, Chemistry, Biochemistry**Requirement Group:** Prerequisites: CHEM 121

CHEM 170(4) Course ID:000416 01-JAN-1901

Physical Sciences for the Elementary School Teacher

Designed to provide K-8 elementary school teachers with an understanding of the physical sciences (Chemistry and Physics) with a focus on (1) the structure and properties of matter and (2) the principles of motion and energy. The areas covered in this course include the physical properties of solids, liquids, and gases; physical and chemical changes in matter; atomic theory and the periodic table; the principles of motion and energy; forces and the motion of particles; sources and transformations of energy including heat, electricity, magnetism, light, and sound; renewable and non-renewable energy sources; and the conservation of energy resources. The laboratory component of this course focuses on demonstrations for the K-8 classroom. Intended for the non-chemistry major. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Life Science - Biology, Chemistry, Biochemistry, Physical Sciences - Physics, Geology, Earth Sci

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Channel Islands - Academic Programs - Subject: Chemistry**CHEM 250(2)** **Course ID:000418** **01-JAN-1901****Quantitative Analysis**

An examination of the theory and techniques involved in the quantification of inorganic, organic, and biological species from samples with an emphasis on the environmental, biological, and medical applications of the analysis techniques.

Components: Lecture**Requirement Group:** Corequisite: CHEM 251. CHEM 122**CHEM 251(2)** **Course ID:000420** **01-JAN-1901****Quantitative Analysis Laboratory**

A laboratory course designed to provide students with an exposure to the techniques used in the quantification of inorganic, organic, and biological species from samples using gravimetric and volumetric analyses, potentiometric titrations, atomic absorption spectrometry, UV-visible spectroscopy, GC, and GC/MS. A lab fee is required.

Components: Laboratory**CHEM 311(3)** **Course ID:000421** **01-JAN-1901****Organic Chemistry I**

The structure and reactions of simple organic molecules and spectroscopic techniques (NMR, GC-MS, IR, and UV-visible) used to characterize molecules. Students interested in pre-professional programs (premedical, pre-veterinary, pre-dental, and pre-pharmacy) should take this course.

Components: Lecture**Requirement Group:** Prerequisite: CHEM 122**CHEM 312(1)** **Course ID:000423** **01-JAN-1901****Organic Chemistry I Laboratory**

A laboratory course designed to provide students with an exposure to the techniques and hands-on access to the instrumentation (NMR, GC, GC-MS, LC, IR, and UV-visible) used to purify and characterize organic molecules resulting from organic reactions. A lab fee is required.

Components: Laboratory**Requirement Group:** Prerequisite: CHEM 311**CHEM 313(1)** **Course ID:000425** **01-JAN-1901****Organic Chemistry I Learning Community**

An instructor/peer-supervised interactive problem-solving session for students in CHEM 311 where students work in small groups on problems related to the content in CHEM 311.

Components: Discussion**Requirement Group:** Corequisite: Must be taken concurrently with CHEM 311**CHEM 314(3)** **Course ID:000426** **01-JAN-1901****Organic Chemistry II**

An examination of the structure, reactions, and spectroscopy of organic compounds containing one or more functional groups, and the structures and reactions of biologically relevant molecules. Students interested in pre-professional programs (pre-medical, pre-veterinary, pre-dental and pre-pharmacy) or obtaining a minor in Chemistry should take this course. A lab fee is required.

Components: Lecture, Laboratory**Requirement Group:** Prerequisite: CHEM 311**CHEM 315(1)** **Course ID:000427** **01-JAN-1901****Organic Chemistry II Laboratory**

A laboratory course designed to provide students with experience in single-step and multi-step syntheses and characterization of organic molecules with hands-on access to instrumentation (NMR, GC, GC-MS, LC, IR, and UV-visible).

Components: Laboratory**Requirement Group:** Prerequisites: CHEM 311; CHEM 312 and CHEM 314**CHEM 316(1)** **Course ID:000428** **01-JAN-1901****Organic Chemistry II Learning Community**

An instructor/peer-supervised interactive problem-solving session for students enrolled in CHEM 314 where students work in small groups on problems related to the content in CHEM 314.

Components: Discussion

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Channel Islands - Academic Programs - Subject: Chemistry**CHEM 318(3)** **Course ID:000429** **01-JAN-1901****Biological Chemistry**

An integrated Organic Chemistry II and Biochemistry course for biology students. The topics covered in this course include: the structure and synthesis of sugars, amino acids, DNA, RNA, proteins; enzyme catalysis and inhibition; and the reactions involved in biosynthetic and metabolic pathways. Students who are interested in pre-professional programs (premedical, pre-veterinary, pre-dental) or students interested in obtaining a minor in Chemistry should take CHEM 314. Intended for the nonchemistry major.

Components: Lecture**Requirement Group:** Prerequisite: CHEM 311**CHEM 341(3)** **Course ID:000161** **01-JAN-1901****Drug Discovery and Development**

How are drugs discovered? What determines the price for a drug? What is the difference between a generic and non-generic drug? These questions will be examined with an interdisciplinary approach. Topics to be covered may include the isolation of compounds from natural sources, the screening of compounds for biological activity, structure-activity relationships of drugs, computer-assisted drug design, combinatorial chemistry, bioinformatics, the FDA approval process for new drugs and the economic and business aspects of pharmaceutical development.

Components: Lecture**Same As Offering:** ECON 341, BUS 341**Attributes:** Life Science - Biology, Chemistry, Biochemistry, Social Perspectives**CHEM 343(3)** **Course ID:000329** **01-JAN-1901****Forensic Science**

A survey of the various chemical and biological techniques used in obtaining and evaluating criminal evidence. Topics include: chromatography; mass spectrometry (LC-MS, GC-MS); atomic absorption spectrometry; IR, UV, fluorescence, and X-ray spectroscopies; fiber comparisons; drug analysis; arson/ explosive residue analysis; toxicological studies; psychological profiling; blood typing; DNA analysis; population genetics; firearm identification; and fingerprint analysis. A lab fee is required.

Components: Lecture, Laboratory**Same As Offering:** BIOL 343**Attributes:** Life Science - Biology, Chemistry, Biochemistry**CHEM 344(3)** **Course ID:000430** **01-JAN-1901****Energy and Society**

Survey of the physical, chemical, and engineering principles involved in the production of energy from current and potential sources and the economical, environmental, and political issues surrounding energy production. The course will also examine factors that influence worldwide energy policy. Examples of topics that may be included in this course include fossil fuels, solar energy, biomass, fuel cells, and nuclear (fission and fusion) processes.

Components: Lecture**Attributes:** Life Science - Biology, Chemistry, Biochemistry**CHEM 346(3)** **Course ID:000156** **01-JAN-1901****Scientific and Professional Ethics**

Discussion of ethical issues and societal challenges derived from scientific research and professional activities. Examines the sources, fundamental principles, and applications of ethical behavior; the relationship between personal ethics and social responsibility of organizations; and the stakeholder management concept. Applies ethical principles to different types of organizations: business, non-profits, government, healthcare, science/technology, and other professional groups. Topics also include integrity of scientific research and literature and responsibilities of scientists to society, intellectual property, ethical practices in professional fields, ethical dilemmas in using animal or human subjects in experimentation, gene cloning, animal cloning, gene manipulation, genetic engineering, genetic counseling, and ethical issues of applying biotechnology in agricultural fields. Emphasizes cases to explore ethical issues.

Components: Lecture**Same As Offering:** ANTH 346, BIOL 346, MGT 346, MATH 346**Attributes:** Social Perspectives**CHEM 350(3)** **Course ID:000431** **01-JAN-1901****Physical Chemistry I**

The fundamentals of physical chemistry including thermodynamics, equilibria, spectroscopy, and kinetics.

Components: Lecture**Requirement Group:** Prerequisites: CHEM 122 and MATH 151

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Channel Islands - Academic Programs - Subject: Chemistry

CHEM 400(4) Biochemistry I and Laboratory An introduction to the physical and chemical properties of proteins and enzymes, enzymatic catalysis and inhibition, the biosynthesis of proteins and nucleic acids and biosynthetic and metabolic pathways. A lab fee is required. Components: Lecture, Laboratory Requirement Group: Prerequisite: CHEM 314	Course ID:000432	01-JAN-1901	
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CHEM 430(3) Research Design and Data Analysis Discussion of experimental design, sampling methods, data collection and methods of data analysis related to scientific fields. Components: Laboratory Same As Offering: BIOL 430, MATH 430 Attributes: Mathematics - Mathematics and Applications Requirement Group: Prerequisites: CHEM 121 and 122	Course ID:000354	01-JAN-1901	
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CHEM 490(1 - 3) Special Topics in Chemistry Specialized topics from the fields of Chemistry and Biochemistry. Components: Lecture	Course ID:000433	01-JAN-1901	Instructor Consent Required
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CHEM 492(1 - 3) Internship/Service Learning Provides student credit for internship work and/or service learning in the community that culminates in a written and oral report. Components: Lecture	Course ID:000434	01-JAN-1901	Instructor Consent Required
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CHEM 494(1 - 3) Independent Research Provides student credit for independent research (laboratory or library) that culminates in a written and oral report. Components: Independent Study Requirement Group: Prerequisite: CHEM 122 or 311 and 312, 318 or 400, BIOL 300	Course ID:000435	01-JAN-1901	Instructor Consent Required
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CHEM 497(1 - 3) Directed Studies Provides student credit for independent work. Components: Independent Study	Course ID:000436	01-JAN-1901	Instructor Consent Required
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Course Catalog

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Channel Islands - Academic Programs - Subject: Computer Information Systems

CIS 110(3) Course ID:000109 01-JAN-1901

Business Computer Systems

Introduces the fundamentals of computer information systems for business: terminology, hardware, software, database and network concepts. Provides hands-on experience in using PCs to address business problems.

Components: Lecture

CIS 310(3) Course ID:000110 01-JAN-1901

Management Info Systems

Application of computer-based information systems to the management of organizations. Topics include use of information to further the organization's mission and strategy, the role of users, the architecture of information, and development of decision-support processes for managers.

Components: Lecture**Requirement Group:** Prerequisite: CIS 110

Course Catalog

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Channel Islands - Academic Programs - Subject: Communication

COMM 210(3)

Course ID:000107

01-JAN-1901

Interpersonal Communication

Analysis of the role communication plays in interpersonal relationships with special emphasis on intercultural communication. Oral interpersonal communication skills will be stressed.

Components: Lecture

Run Time: 11:14:25

Requirement Group: Prerequisite: COMP 151 and COMP 162

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Channel Islands - Academic Programs - Subject: Computer Science**COMP 262(3) Course ID:000119 01-JAN-1901****Computer Organization and Architecture**

Extension of basic addressing concepts to more advanced addressability such as base register and self-relative addressing. Comparative computer architecture focusing on such organizations as multiple register processors and stack machines. Basics of virtual memory input-output. Introduction to the concept of microprogrammable systems. Low-level language translation process associated with assemblers. System functions such as relocatable loading and memory management. Application of data structure and hashing techniques to the above. Also includes other related topics.

Components: Lecture**Requirement Group:** Prerequisite: COMP 151 and COMP 162**COMP 350(3) Course ID:000120 01-JAN-1901****Software Engineering**

Concepts and techniques for systems engineering, requirements analysis, design, implementation and testing of large scale computer systems. Principles of software engineering for production of reliable, maintainable and portable software products. Emphasis on functional analysis and structured design techniques. Topics include unit, integration and systems testing, configuration management, and software quality assurance practices. Participation in group activities involving analysis, design and implementation of a software intensive system. Includes an introduction to Computer Aided Software Engineering (CASE).

Components: Lecture**Requirement Group:** Prerequisites: COMP 232 and COMP 262**COMP 362(3) Course ID:000121 01-JAN-1901****Operating Systems**

Examination of the principal types of systems including batch, multiprogramming, and time-sharing. Networked systems are also discussed. The salient problems associated with implementing systems are considered including interrupt or event driven systems, multi-tasking, storage and data base management, and input-output. Emphasis will be placed on some of the simple algorithms used to solve common problems encountered such as deadlocks, queue service, and multiple accesses to data. Projects will be implemented to reinforce the lectures.

Components: Lecture**Requirement Group:** Prerequisite: COMP 262**COMP 410(3) Course ID:000122 01-JAN-1901****Computer Application in Biomedical Fields**

Current applications of computers and data processing technology to the understanding and solving of specific problems in biomedical fields.

Components: Lecture**Same As Offering:** BIOL 410**Requirement Group:** Prerequisites: BIOL 201**COMP 420(3) Course ID:000123 01-JAN-1901****Database Theory and Design**

Database structure including: structure definition, data models, semantics of relations, and operation on data models. Database schemas: element definition, use and manipulation of the schema. Elements of implementation. Algebra of relations on a database. Hierarchical data bases. Discussion of information retrieval, reliability, protection and integrity of databases.

Components: Lecture**Requirement Group:** Prerequisite: COMP 350**COMP 422(3) Course ID:000124 01-JAN-1901****Design of Compilers**

Organization of compiler including lexical and syntax analysis, symbol tables, object code generation, code optimization techniques, and overall design. Compilation techniques and run-time structures.

Components: Lecture**Requirement Group:** Prerequisites: COMP 444**COMP 424(3) Course ID:000125 01-JAN-1901****Computer System Security**

Security techniques in operating systems, data bases, and computer networks. Analysis of formal security models. Introduction to cryptography, public key security schemas.

Components: Lecture**Requirement Group:** Prerequisite: COMP 350

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Channel Islands - Academic Programs - Subject: Computer Science**COMP 429(3) Course ID:000126 01-JAN-1901****Computer Networks**

Basic software design and analysis considerations in networking computers into coherent, cooperating systems capable of processing computational tasks in a distributed manner. Network topology, routing procedures, message multiplexing and process scheduling techniques.

Components: Lecture**Requirement Group:** Prerequisites: COMP 350; COMP 362 & MATH 344**COMP 431(4) Course ID:000127 01-JAN-1901****Bioinformatics**

Basic computational models used in molecular biology and chemistry will be introduced. Topics include algorithms for string alignments, dynamic programming, structural superposition algorithms, computing with differential information, 3D motifs, Hidden Markov Models, phylogenetic trees, statistical/ information techniques for pattern recognition, genetic algorithms. A lab fee is required.

Components: Laboratory**Same As Offering:** BIOL 431**Attributes:** Mathematics - Mathematics and Applications**Requirement Group:** COMP 150, MATH 151, Statistics**COMP 444(3) Course ID:000128 01-JAN-1901****Automata, Languages, and Computation**

Study of the relation of languages (i.e. sets of strings) and machines for processing these languages, with emphasis on classes of languages and corresponding classes of machines. Phrase structure languages and grammar. Types of grammars and classes of languages. Regular languages and finite state automata. Context-free languages and pushdown automata. Unrestricted languages and Turing Machines. Computability models of Turing, Church, Markov, and McCarthy. Applications to programming languages, compiler design, and program design and testing.

Components: Lecture**Attributes:** Languages and Cultures**Requirement Group:** Prerequisites: MATH 300**COMP 447(3) Course ID:000129 01-JAN-1901****Societal Issues in Computing**

A survey course on the role of the digital computer in modern society. The dangers of the misuse of computers (as in the invasion of privacy), as well as the proper and intelligent use of the machines, are discussed.

Components: Lecture**Attributes:** Social Perspectives**Requirement Group:** Prerequisites: COMP 350 and COMP 362**COMP 449(3) Course ID:000130 01-JAN-1901****Human - Computer Interaction**

The information exchange between humans and computer systems will be examined. Aspects of input/output devices, software engineering, and human factors will be discussed with respect to human-computer interactions. Topics include: text and graphic display; user modeling; program design, debugging, complexity and comprehension; and current research studies and methodologies.

Components: Lecture**Attributes:** Human Psychological & Physiological Perspectives**Requirement Group:** Prerequisite: COMP 350**COMP 462(3) Course ID:000131 01-JAN-1901****Advanced Object Oriented Programming**

Principles of object-oriented design and programming based on languages such as JAVA, C++ and Smalltalk will be presented. Understanding of the role of objects, methods, message passing, encapsulation, and inheritance for effective programming will be stressed. Language structure versus particular engineering objectives will be analyzed. Design Patterns techniques will be a unifying theme.

Components: Lecture**Requirement Group:** Prerequisite: COMP 350**COMP 464(3) Course ID:000132 01-JAN-1901****Computer Graphics System and Design I**

Fundamental concepts of computer graphics. Graphics devices; graphics languages; interactive systems. Applications to art, science, engineering and business. Trade-offs between hardware devices and software support.

Components: Lecture**Requirement Group:** Prerequisites: COMP 350 and MATH 240

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Channel Islands - Academic Programs - Subject: Computer Science

COMP 466(3)	Course ID:000133	01-JAN-1901	
Computer Graphics Systems and Design II			
Advanced concepts of computer graphics. Topics include computer graphics software and hardware, mathematical basis of geometric modeling, data base management in manufacturing environments, imagining and visualization.			
Components:	Lecture		
Requirement Group:	Prerequisites: COMP 464		
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COMP 469(3)	Course ID:000134	01-JAN-1901	
Artificial Intelligence Neural Nets			
An exploration of the use of computers to perform computations normally associated with intelligence, pattern formation and recognition using various backpro iterations. Stacks, decision trees and other modern mining tools and computational models for knowledge representation will be covered. Other topics may include natural language and imagining.			
Components:	Lecture		
Requirement Group:	Prerequisites: MATH 342		
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COMP 490(3)	Course ID:000135	01-JAN-1901	
Topics in Computer Science			
Current issues in computer science.			
Components:	Lecture		
Requirement Group:	Prerequisites: Junior Standing		
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COMP 492(3)	Course ID:000136	01-JAN-1901	
Internship			
Supervised work and study in industrial setting involving development of degree related skills. All students are required to present their projects at the Senior Seminar.			
Components:	Lecture		
Requirement Group:	Prerequisites: Junior Standing		
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COMP 494(3)	Course ID:000138	01-JAN-1901	Instructor Consent Required
Independent Research			
Supervised project involving theoretical research in the field of computer science or its applications. All students are required to present their projects at the Senior Seminar.			
Components:	Independent Study		
Requirement Group:	Prerequisites: Senior standing		
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COMP 497(3)	Course ID:000139	01-JAN-1901	Instructor Consent Required
Directed Study			
Supervised project involving library research. All students are required to present their projects at the Senior Seminar.			
Components:	Independent Study		
Requirement Group:	Prerequisites: Senior standing		
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COMP 499(1)	Course ID:000145	01-JAN-1901	Instructor Consent Required
Senior Colloquium			
Oral presentation of current advancements in the field, reports on students' projects, and invited lectures.			
Components:	Lecture		
Requirement Group:	Prerequisites: Senior standing		

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Channel Islands - Academic Programs - Subject: Economics

ECON 110(3) Principles of Microeconomics The application of economic reasoning to the decisions of consumers and producers. Topics include opportunity cost, resource allocation, the price system, the organization of industry, market failures, distribution of income, public sector economics. Components: Lecture Attributes: Social Perspectives	Course ID:000147	01-JAN-1901
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ECON 111(3) Principles of Macroeconomics Study of the workings of the economy. Topics include national income accounting, business cycles, employment and unemployment, inflation, economic growth, financial institutions, fiscal and monetary policy, international trade. Components: Lecture Attributes: Social Perspectives	Course ID:000149	01-JAN-1901
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ECON 300(3) Fundamentals of Economics Basic economic training for citizens who wish to exercise a reasoned judgment about economic issues in public affairs. Components: Lecture Attributes: Social Perspectives	Course ID:000151	01-JAN-1901
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ECON 310(3) Intermediate Microeconomics Economic analysis of the decisions of consumers and producers. Emphasis on the theory of consumer behavior, the theory of the firm, price and output determination in various market structures, factor markets and externalities. Components: Lecture Requirement Group: Prerequisites: ECON 110, 111 and either MATH 140 or 150	Course ID:000155	01-JAN-1901
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ECON 311(3) Intermediate Macroeconomics Determinants of levels of national income, employment, and price levels. Analysis of secular and cyclical changes in economic activity, and the effects of monetary and fiscal policies on these changes. Components: Lecture Requirement Group: Prerequisites: ECON 110, 111 and either MATH 140 or 150	Course ID:000157	01-JAN-1901
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ECON 320(3) Money and Banking Nature and functions of money and its relation to prices; the monetary system of the United States; the functions of banks, bank credit, foreign exchange and monetary control. The impact of monetary policy on economic activity. Components: Lecture Requirement Group: Prerequisites: ECON 110, 111 and either MATH 140 or 150	Course ID:000158	01-JAN-1901
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ECON 329(3) Managerial Economics Development of the tools of marginal analysis and their application to managerial decisions and planning. Topics include demand analysis, production and cost, pricing and output decisions under different market structures. Product and factor markets will be analyzed. Components: Lecture Requirement Group: Prerequisites: ECON 110, 111 and either MATH 140 or 150	Course ID:000159	01-JAN-1901
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ECON 340(3) Business and Money in the American Novel What is money, really? How does it work in our society and literature? These are the starting questions which will form the core of exploration as we read and discuss works of American literature. Components: Lecture Same As Offering: BUS 340, ENGL 340 Attributes: Critical Thinking, Literature Courses, Languages and Cultures	Course ID:000160	01-JAN-1901
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Channel Islands - Academic Programs - Subject: Economics**ECON 341(3)** **Course ID:000161** **01-JAN-1901****Drug Discovery and Development**

How are drugs discovered? What determines the price for a drug? What is the difference between a generic and non-generic drug? These questions will be examined with an interdisciplinary approach. Topics to be covered may include the isolation of compounds from natural sources, the screening of compounds for biological activity, structure-activity relationships of drugs, computer-assisted drug design, combinatorial chemistry, bioinformatics, the FDA approval process for new drugs and the economic and business aspects of pharmaceutical development.

Components: Lecture**Same As Offering:** CHEM 341, BUS 341**Attributes:** Life Science - Biology, Chemistry, Biochemistry, Social Perspectives**ECON 343(3)** **Course ID:000104** **01-JAN-1901****Capital Theory**

Intertemporal choice and decision-making under uncertainty in our personal and financial lives. Topics include multiperiod consumption, multiperiod production, capital budgeting, modern portfolio theory and financial management.

Components: Lecture**Same As Offering:** FIN 343**Attributes:** Social Perspectives**ECON 349(3)** **Course ID:000163** **01-JAN-1901****History of Business and Economics in North America**

Examines the growth and development of economies of North America since colonial times. Addresses social, ethical, economic and management issues during the development of Canada, the United States and Mexico. Analyzes the business principles underlying the growth and development of the economies.

Components: Lecture**Same As Offering:** HIST 349, BUS 349**Attributes:** Social Perspectives**ECON 362(3)** **Course ID:000164** **01-JAN-1901****Introduction to Environmental Economics**

Economic analysis of environmental problems and policy. Market failures due to externalities, public goods, and common property resources will be examined. Private (market) and public (governmental) solutions to environmental problems are examined.

Components: Lecture**Requirement Group:** Prerequisites: ECON 110 , ECON 111**ECON 462(3)** **Course ID:000165** **01-JAN-1901****Environmental Economics**

The measurement of market and non-market benefits with application in measuring environmental benefits. Theory of consumer choice: indirect utility functions, expenditure functions, consumer surplus, willingness-to-pay and willingness-to-accept. Theory of measurement: hedonic models, recreation demand, contingent valuation, economy-ecosystem interactions, valuing human morbidity and mortality.

Components: Lecture**ECON 463(3)** **Course ID:000166** **01-JAN-1901****Energy Economics**

Application of economic analysis to energy problems and policies. Representative topics include macroeconomic effects of energy price shocks, international financial fragility, OPEC pricing strategies, determinants of demand and supply, industrial organization and finance, investor and publicly owned utilities, domestic and international policies.

Components: Lecture**Requirement Group:** Prerequisites: ECON 310 or ECON 329**ECON 464(3)** **Course ID:000167** **01-JAN-1901****Natural Resource Economics**

Microeconomic and capital theory applied to problems of conserving and managing natural resources. Analysis of public policies affecting renewable and nonrenewable resources including price controls, taxation and leasing. Representative topics include: forestry, energy, water, and mineral economics.

Components: Lecture**Requirement Group:** Prerequisites: ECON 310 or ECON 329

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ECON 497(3)	Course ID:000188	01-JAN-1901
Directed Study		
Reading and library research under the direction of a faculty member. Enrollment in this course is with permission of faculty member in charge.		
Components:	Independent Study	

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Channel Islands - Academic Programs - Subject: Ed Multiple Subjects Program

EDMS 522(3) Course ID:000198 01-JAN-1901

Literacy I/Multicultural-Multilingual

Includes developmental theory and practice of the reading and writing process across the grade levels. Includes study skills. Foundations of reading and writing theory and practice for students who speak English as a first or second language. Teaching reading and writing to native English speakers and English Language Learners in English Only, Multilingual and Bilingual contexts. Needs of English Language Learners and exceptional children, technology for teaching and learning is integrated.

Components: Lecture**Requirement Group:** Prerequisite: Students must be officially admitted to the Multiple Subject Credential Program

EDMS 523(4) Course ID:000200 01-JAN-1901

Literacy II/Multicultural-Multilingual

Includes differentiated instruction and scaffolding for English language learners, special education (including gifted) and English only students. Focus on reading and writing skills across the content areas and Literature based instruction for native English speakers and English Language Learners in English Only, Multilingual and Bilingual contexts. Needs of English Language Learners and exceptional children, technology for teaching and learning is integrated.

Components: Lecture**Requirement Group:** Prerequisite: Students must be officially admitted to the Multiple Subject Credential Program

EDMS 526(3) Course ID:000201 01-JAN-1901

Modern Methods in Mathematics Teaching

Students learn to apply techniques and materials to teaching mathematics in elementary and middle schools. Special attention will be given to mathematical reasoning, problem solving skills, multiple representations and approaches including verbal, symbolic, and graphic. Modern methods, including mathematical modeling, use of new technology and modern educational software will be stressed. Needs of English Language Learners and exceptional children, technology for teaching and learning is integrated.

Components: Lecture**Requirement Group:** Prerequisite: Students must be officially admitted to the Multiple Subject Credential Program

EDMS 527(4) Course ID:000202 01-JAN-1901

History & Social Studies and Integrated Arts

Focuses on curriculum for History, Social Sciences and Arts as delineated by the California Content Area Standards and the Curriculum Frameworks. Includes curriculum development, methods, techniques, planning and assessment in history, social studies and integrated arts. Needs of English Language Learners and exceptional children, technology for teaching and learning is integrated.

Components: Lecture**Requirement Group:** Prerequisite: Students must be officially admitted to the Multiple Subject Credential Program

EDMS 529(4) Course ID:000203 01-JAN-1901

Science, Health and Physical Education

Through this course students learn and apply recommended methods for teaching physical, life and earth science, health and physical education to students (K-8) based on research and theory. Students reflect upon their personal development and abilities to integrate theory and practice in science, health and physical education with other subject areas. Needs of English Language Learners and exceptional children, technology for teaching and learning is integrated.

Components: Lecture**Requirement Group:** Prerequisite: Students must be officially admitted to the Multiple Subject Credential Program

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Channel Islands - Academic Programs - Subject: Education

EDUC 101(3) **Course ID:000192** **01-JAN-1901**
Introduction to Education
The elementary teaching profession; personal goals, teaching-learning environment, and career opportunities. Experiences that assist students gain accurate knowledge schooling in the 21st century.
Components: Lecture, Field Studies

EDUC 320(3) **Course ID:000193** **01-JAN-1901**
Education in Modern Society
Survey of educational institutions and practices used in different sectors of society. Includes historical and philosophical foundations of American education.
Components: Lecture

EDUC 510(3) **Course ID:000194** **01-JAN-1901**
Learning Theory & Development Applied in Multicultural Education Contexts
Introduction to psychology of learning and instruction. Major concepts, principles, theories and research related to child and adolescent development; human learning; the cognitive, linguistic, social, emotional and physical development. Candidates begin to use this knowledge to create learning opportunities that support student development, motivation and learning in a social, cultural, and historical context. Includes learning theories and their application to educational practice in multicultural and multilingual classroom settings.
Components: Lecture, Field Studies

EDUC 512(3) **Course ID:000195** **01-JAN-1901**
Equity,Diversity & Foundations of Schooling
Principles of effectively teaching students from diverse language, historical, and cultural backgrounds. Includes, skills and abilities and community values. Focus on the major cultural and ethnic groups. Attention to ways of recognizing and minimizing bias in the classroom and ways to create equitable classroom community that emphasize the physical, social, emotional and intellectual safety of all students. Includes study of gender bias, diverse students, families, schools and communities and the candidate's self-examination of his/her stated and implied beliefs, attitudes and expectations related to these areas of diversity.
Components: Lecture

EDUC 520(3) **Course ID:000196** **01-JAN-1901**
Observing and Guiding Behavior in Multilingual/Multicultural & Inclusive Classrooms
Through this course students observe children's behavior in multilingual/ multicultural and inclusive classrooms, learn and apply assessment principles and tools; learn how to guide children's social behavior; and communicate with families. Students learn how to organize and write plans for instruction.
Components: Lecture, Field Studies
Requirement Group: Prerequisite: Students must be officially admitted to the Multiple Subject Credential Program

EDUC 560(1 - 9) **Course ID:000197** **01-JAN-1901**
Fieldwork/Student Teaching
Observation and teaching in selected schools under the supervision of classroom teacher and University supervisor, with a student teaching seminar.
Components: Field Studies
Requirement Group: Prerequisite: Students must be officially admitted to the Multiple Subject Credential Program

EDUC 561(1) **Course ID:000199** **01-JAN-1901**
Student Teaching Seminar
Weekly Meetings to discuss observations and teaching practice during the student teaching experience.
Components: Seminar

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Channel Islands - Academic Programs - Subject: English

ENGL 100(3) Course ID:000204 01-JAN-1901

Composition and Rhetoric

Instruction and practice in writing university-level expository prose. The subject matter of the course will be thematic and variable. The focus of the course is development of proficiency in conceptualizing, analyzing and writing academic papers.

Components: Lecture

ENGL 120(3) Course ID:000205 01-JAN-1901

American Literature I

Study of major works of American literature from colonial times through 1850, with special attention to literary movements. Major writers will be addressed, as well as lesser known writers from various cultural and regional backgrounds.

Components: Lecture

Attributes: Literature Courses

Requirement Group: Prerequisites: ENGL 100

ENGL 150(3) Course ID:000206 01-JAN-1901

British and European Literature I

Survey of major authors in English and European literature from Beowulf to approximately 1650, with special emphasis on the intellectual backgrounds of the Medieval and Renaissance periods.

Components: Lecture

Attributes: Literature Courses

Requirement Group: Prerequisites: ENGL 100

ENGL 220(3) Course ID:000207 01-JAN-1901

American Literature II

Study of major works of American literature from 1850 to the present, with special attention to literary movements. Major writers will be addressed, as well as lesser known writers from various cultural and regional backgrounds.

Components: Lecture

Attributes: Literature Courses

Requirement Group: ENGL 100 & ENGL 120

ENGL 250(3) Course ID:000208 01-JAN-1901

British and European Literature II

Study of major works of English and European literature from approximately 1650 to the present, with special attention to various literary movements.

Components: Lecture

Attributes: Literature Courses

Requirement Group: ENGL 100 & ENGL 150

ENGL 310(3) Course ID:000209 01-JAN-1901

Research Methods

Comprehensive investigation of research modalities, including the various forms of electronic research. Writing intensive.

Components: Lecture

Requirement Group: Prerequisites: ENGL 100

ENGL 312(3) Course ID:000211 01-JAN-1901

Introduction to Children's Literature

An inquiry into children's and adolescent literature. Students analyze narrative and expository texts. Focus will be on critical reading for K-12 students and analysis of perspective in fiction and non-fiction. Works studied will be representative of several genres, cultures, and periods of literature. Students evaluate the use of elements of persuasive argument in print, speech, videos, and in other media.

Components: Lecture

Requirement Group: Prerequisites: ENGL 100

ENGL 315(3) Course ID:000215 01-JAN-1901

Introduction to Language Structure and Linguistics

An examination of the basic components of human language, including phonology, morphology, syntax and semantics, and the differences/similarities between languages. Students will identify examples of speech parts, their function, morphology, and syntax.

Components: Lecture

Requirement Group: Prerequisites: ENGL 100

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Channel Islands - Academic Programs - Subject: English**ENGL 326(3)** **Course ID:000224** **01-JAN-1901****Major British and European Authors**

Concentrated study of selected British and/or European authors. Authors selected change from term to term; therefore, students may take the course for credit more than once.

Components: Lecture**Requirement Group:** Prerequisites: ENGL 100, ENGL 250**ENGL 327(3)** **Course ID:000229** **01-JAN-1901****Major American Authors**

Concentrated study of selected American authors. Authors selected change from term to term; therefore, students may take the course for credit more than once.

Components: Lecture**Requirement Group:** Prerequisites: ENGL 100, ENGL 220**ENGL 328(3)** **Course ID:000231** **01-JAN-1901****Mythology**

Study of mythology and the influence it has had on literature, art, music, and the development of cultures. Course topics may include Classical Mythology, Eastern Mythology, Mythology of the Americas, Egyptian Mythology, and others.

Components: Lecture**Requirement Group:** Prerequisites: ENGL 100**ENGL 330(3)** **Course ID:000233** **01-JAN-1901****Writing in the Disciplines**

Individual and collaborative writing in a variety of styles and forms. Students will learn writing and research techniques of various types, with special emphasis on writing for their chosen majors. Oral presentations form a portion of the course.

Components: Lecture**Requirement Group:** Prerequisites: ENGL 100**ENGL 333(3)** **Course ID:000235** **01-JAN-1901****Multicultural Drama in Performance/Production**

America is a country of many cultures, and each of these has brought legacies of its roots to the American stage. In this course we will read plays written by Native Americans, Hispanic Americans, Asian Americans, African Americans and others. We will also stage mini productions of one or more of those plays.

Components: Lecture**Same As Offering:** TH 333**Attributes:** Literature Courses, Languages and Cultures**Requirement Group:** Prerequisites: ENGL 100, ENGL 220**ENGL 334(3)** **Course ID:000236** **01-JAN-1901****Narratives of Southern California**

Ours is a region made up of many cultures which produce the one we call Southern California. In this class we will take a historical approach to study of the narratives oral, written and filmed of Southern California. Course work may also include obtaining oral histories and compiling them.

Components: Lecture**Same As Offering:** HIST 334**Attributes:** Languages and Cultures**Requirement Group:** Prerequisites: ENGL 100, ENGL 220**ENGL 335(3)** **Course ID:000232** **01-JAN-1901****American Ethnic Images in Novels, Film and Art**

An examination of the portrayal of ethnic groups from an interdisciplinary perspective that includes, but is not limited to, the literary, historical, and artistic modes of analysis. This course highlights the ways in which artistic works have shaped the intellectual landscape of the United States as they relate to ethnic peoples.

Components: Lecture**Same As Offering:** ART 335, HIST 335**Attributes:** Languages and Cultures, Social Perspectives

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Channel Islands - Academic Programs - Subject: English**ENGL 337(3) Course ID:000238 01-JAN-1901****Literature of the Environment**

Literature of the Environment is structured to involve the student in many forms of dialogue on issues pertinent to humanity's relationship with Earth. By reading works by writers from diverse fields and by writing in response, the student will gain a better understanding of our planet, its needs, and a better control of writing in response to learning.

Components: Lecture**Attributes:** Literature Courses**Requirement Group:** Prerequisites: ENGL 100**ENGL 339(3) Course ID:000239 01-JAN-1901****Psychopathology in Literature**

This course is co-developed and co-taught by faculty from Psychology and English. Human psychology and its manifestations in literature are the topics of the course, and students will use skills from both disciplines to address the ideas and issues presented by the literature.

Components: Lecture**Same As Offering:** PSY 339**Attributes:** Literature Courses, Human Psychological & Physiological Perspectives**Requirement Group:** Prerequisites: ENGL 100**ENGL 340(3) Course ID:000160 01-JAN-1901****Business and Money in the American Novel**

What is money, really? How does it work in our society and literature? These are the starting questions which will form the core of exploration as we read and discuss works of American literature.

Components: Lecture**Same As Offering:** ECON 340, BUS 340**Attributes:** Critical Thinking, Literature Courses, Languages and Cultures**ENGL 349(3) Course ID:000241 01-JAN-1901****Special Interdisciplinary Topics**

These courses will vary by topic, but they will all be interdisciplinary by nature, involving information and ways of knowing from at least two disciplines.

Components: Lecture**Requirement Group:** Prerequisites: ENGL 100**ENGL 400(3) Course ID:000242 01-JAN-1901****Contemporary Literature**

Survey of world trends in literature, possibly including fiction, non-fiction, poetry and/or drama. Specific topics vary from term to term; the class is therefore repeatable for credit.

Components: Lecture**Requirement Group:** Prerequisites: ENGL 100**ENGL 410(3) Course ID:000243 01-JAN-1901****Shakespeare's Plays**

Study of the many aspects of Shakespeare's plays as literature, language, context, form and style, as well as the ways in which these elements work as parts of a whole, which includes spoken speech and other sounds as well as physical form and movement. Choices are: Shakespeare's Early Plays (pre-1600) and Shakespeare's Later Plays (post-1600).

Components: Lecture**Same As Offering:** TH 410**Requirement Group:** Prerequisites: ENGL 100**ENGL 420(3) Course ID:000461 01-JAN-1901****Literary Theory**

Need Description- There is an existing Literary Theory 430

Components: Lecture**ENGL 430(3) Course ID:000244 01-JAN-1901****Literary Theory**

Survey of literary theory and critical study which investigates various approaches, perspectives, and modes of inquiry. Literary Criticism extends beyond literature to intersect with anthropology, philosophy, psychology, linguistics, political science, and other disciplines, and critical analysis by literary scholars encompass all forms of cultural production, literary and non-literary.

Components: Lecture**Requirement Group:** Prerequisites: ENGL 100

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Channel Islands - Academic Programs - Subject: English**ENGL 431(3) Course ID:000245 01-JAN-1901****European Renaissance Literature and Art**

The Renaissance of the 15th and 16th centuries in Europe and England provided the world with a new way of looking at humankind and our surroundings. By reading the literature of this period and studying the art produced during that time, we will gain an understanding of this "rebirth" of the human spirit and a better understanding of the legacies of the Renaissance artists and writers.

Components: Lecture
Same As Offering: ART 431
Attributes: Fine Art Courses, Literature Courses
Requirement Group: Prerequisites: ENGL 100

ENGL 432(3) Course ID:000246 01-JAN-1901**Arts of the Harlem Renaissance**

The Harlem Renaissance was one of the most exciting epochs in American history. The art, literature and music produced in Harlem during the '20s and '30s has had a significant impact on American and world cultures. In this class, we will study these art forms and their historical genesis and legacy.

Components: Lecture
Same As Offering: ART 432, MUS 432
Attributes: Fine Art Courses, Literature Courses
Requirement Group: Prerequisites: ENGL 100

ENGL 449(3) Course ID:000247 01-JAN-1901**Perspectives on Multicultural Literature**

Each of the cultures present in America today has its own set of qualities which make it different from that of other cultures. In this class, we will study some of those, but the focus of the class will be on issues and/or ideas which affect each of these literatures and discover ways in which they inform each other.

Components: Lecture
Attributes: Literature Courses, Languages and Cultures
Requirement Group: Prerequisites: ENGL 220, ENGL 310 suggested

ENGL 450(3) Course ID:000248 01-JAN-1901**Native American Literature**

In this course students study the novels and poetry written by Native American authors. In order to understand the development of the literature, we will also read essays relevant to the events, issues and concerns attending the historical interactions between Native Americans and Euro-Americans in North America.

Components: Lecture
Requirement Group: Prerequisites: ENGL 449

ENGL 451(3) Course ID:000249 01-JAN-1901**African/African American Literature**

In this course students study the novels and poetry written by African American authors. In order to understand the development of the literature, we will also read essays relevant to the events, issues and concerns attending the historical interactions between African Americans and other peoples in North America. Authors writing in African countries may also be included in order to gain a more global perspective on the literature.

Components: Lecture
Requirement Group: Prerequisites: ENGL 449

ENGL 452(3) Course ID:000253 01-JAN-1901**Asian/Asian American Literature**

In this course students study the novels and poetry written by Asian American authors. In order to understand the development of the literature, we will also read essays relevant to the events, issues and concerns attending the historical interactions between Asian Americans and other peoples in North America. Authors writing in Asian countries may also be included in order to gain a more global perspective on the literature.

Components: Lecture
Requirement Group: Prerequisites: ENGL 449

ENGL 453(3) Course ID:000256 01-JAN-1901**Hispanic/Hispanic American Literature**

In this course students study the novels and poetry written by Hispanic American authors. In order to understand the development of the literature, we will also read essays relevant to the events, issues and concerns attending the historical interactions between Hispanic Americans and other peoples in North America. Authors writing in Spain, Mexico, Central America or South American countries may also be included in order to gain a more global perspective on the literature.

Components: Lecture
Requirement Group: Prerequisites: ENGL 449

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Channel Islands - Academic Programs - Subject: English

ENGL 454(3) Course ID:000259 01-JAN-1901 Instructor Consent Required
Multicultural Literature Project/Seminar

As the culmination of the Multicultural Literature Emphasis, the purpose of this independent study course is to produce a significant work in the genre of the student's choice, chosen in consultation with his or her instructor.

Components: Independent Study

Requirement Group: Prerequisites: ENGL 449, 450, 451, 452, 453

ENGL 460(3) Course ID:000261 01-JAN-1901

Perspectives on Creative Writing

This course will be writing intensive, but the focus of the course will be reading and discussing what others have written about the processes involved in the creative writing endeavor. Guest lectures by published writers, publishers and other experts may be part of the course.

Components: Lecture

Requirement Group: Prerequisites: ENGL 330

ENGL 461(3) Course ID:000263 01-JAN-1901

Fiction Writing

The writing of fiction is the focus of this class. The seminar format allows students the opportunity to talk about their writing and to receive critiques from their peers as well as the instructor of several genres, cultures, and periods of literature.

Components: Lecture

Requirement Group: Prerequisites: ENGL 460

ENGL 462(3) Course ID:000266 01-JAN-1901

Poetry Writing

The writing of poetry is the focus of this class. The seminar format allows students the opportunity to talk about their poetry and to receive critiques from their peers as well as the instructor.

Components: Lecture

Requirement Group: Prerequisites: ENGL 460

ENGL 463(3) Course ID:000268 01-JAN-1901

Writing for the Stage and Screen

The writing of stage plays and/or screen plays is the focus of this class. The seminar format allows students the opportunity to talk about their writing and to receive critiques from their peers as well as the instructor.

Components: Lecture

Requirement Group: Prerequisites: ENGL 460

ENGL 464(3) Course ID:000274 01-JAN-1901

Creative Non-Fiction

The writing of creative non-fiction is the focus of this class. The seminar format allows students the opportunity to talk about their writing and to receive critiques from their peers as well as the instructor.

Components: Lecture

Requirement Group: Prerequisites: ENGL 460

ENGL 465(3) Course ID:000276 01-JAN-1901 Instructor Consent Required

Creative Writing Project

As the culmination of the Creative Writing Emphasis, the purpose of this independent study course is to produce a significant work in the genre of the student's choice, chosen in consultation with his or her instructor.

Components: Independent Study

Requirement Group: Prerequisites: ENGL 460, 461, 462, 463, 464

ENGL 475(3)	Course ID:000278	01-JAN-1901	Instructor Consent Required
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Language in Social Context

Focus is on the nature of literacy, with emphasis on literacy development for English Only (EO) and English Language Learners (ELLs), investigation and knowledge of the development and acquisition of English literacy, and understanding the role of concepts and contexts in word meanings, vocabulary development, and multiple meanings. Also stressed will be differences between English and other languages that impact the acquisition of English literacy by ELLs, the role of primary language literacy in the development of English language among ELLs, and the impact of disabilities on oral and written English language development.

Components: Lecture

Requirement Group: Prerequisites: ENGL 100

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: English

ENGL 476(3) Course ID:000282 01-JAN-1901 Instructor Consent Required**Language Development and Assessment**

Introduction to language development issues for first and second language speakers. Examination of the linguistic theories of language acquisition including the study of child language development and situated in a cognitive, social, and cultural context. Study of second language acquisition in children, adolescents and adults. Includes the nature of assessment for language development, including speaking, reading, and writing.

Components: Lecture**Requirement Group:** Prerequisites: ENGL 100

ENGL 477(3) Course ID:000292 01-JAN-1901**Literature for English Secondary Education**

An inquiry into adolescent literature. A survey of adolescent literature in which students analyze narrative and expository texts. Questions raised may include: What purpose does literature serve in the cultural milieu of a community? What cultural patterns, symbols, mythologies and traditions are included? Focus will be on critical reading for single subject matter preparation. Specific works studied will be representative of several genres, cultures, and periods of literature.

Components: Lecture

ENGL 478(3) Course ID:000294 01-JAN-1901**Writing for English Secondary Education**

Introduction to current theory and practice of teaching writing in the secondary schools, in a writing context and across the curricula. Special attention to advanced critical reading, thinking, and writing skills.

Components: Lecture

ENGL 482(3) Course ID:000296 01-JAN-1901**Technical Writing**

This course is an overview of the field of technical writing. Research, interviewing, and the various forms of technical writing are addressed. Students will produce work in a variety of forms of technical writing.

Components: Lecture**Requirement Group:** Prerequisites: ENGL 330

ENGL 483(3) Course ID:000295 01-JAN-1901**Technical Visual Communication**

The focus of this course is two-fold. First, the student will research and write a presentation on a topic of his or her choice, suitable for a specific application (conference, meeting, etc.) and receive critiques from his or her peers and the professor. Second, the student will use that paper to form the basis of a visual presentation using up-to-date technology of various forms.

Components: Lecture

ENGL 484(3) Course ID:000297 01-JAN-1901**Technical Writing for the Sciences**

Writing for the Sciences requires a specialized understanding of the process of writing as well as the content of the final essay or article. Students will learn to do research in specialized fields and to write for a variety of scientific journals and other publications.

Components: Lecture**Requirement Group:** Prerequisites: ENGL 330

ENGL 485(3) Course ID:000298 01-JAN-1901**Technical Writing Project/Seminar**

As the culmination of the Technical Writing certificate program, this course may be an internship, independent study, seminar or a project course. Projects will be devised in consultation with an advisor.

Components: Seminar**Requirement Group:** Prerequisites: ENGL 310, 330, 482,483 and 484 and a passing portfolio of work from the prerequisite co

ENGL 494(3) Course ID:000299 01-JAN-1901 Instructor Consent Required**Independent Study/Senior Research**

Students may do an independent study to further coursework begun in other courses, obtain an internship which utilizes knowledge gained thus far, or do research in preparation for the senior project.

Components: Independent Study**Requirement Group:** Prerequisites: Senior standing

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: English

ENGL 499(3)

Course ID:000300

01-JAN-1901

Instructor Consent Required

Capstone Project/Senior Seminar

This course is an interdisciplinary experience in which students work in teams, contributing their expertise to a community-based group project.

Components: Lecture

Requirement Group: Prerequisites: Senior standing

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Environment Sci & Resource Mgt**ESRM 120(3) Course ID:000137 01-JAN-1901****Co-evolution of Human and Natural Systems**

Are natural systems real, or have humans so altered the Earth to meet our needs that no purely natural systems survive? This course examines the human impact on the environment from the discovery of fire to the present, using case studies from throughout the world, including fire farming in Australia, deforestation in Africa, Asia, and America; and human roles in faunal and floral extinctions through time.

Components: Lecture**Same As Offering:** ANTH 120**Attributes:** Social Perspectives

ESRM 328(3) Course ID:000302 01-JAN-1901**Introduction to Geographical Information Systems**

Introduction to fundamental concepts and techniques of geographic information systems, including problems of acquiring and processing machine-readable map data. A lab fee is required.

Components: Lecture, Laboratory

ESRM 330(3) Course ID:000303 01-JAN-1901**Environmental Institutions, Law and Regulation**

Political institutions, property rights, federal and state roles in decisionmaking, and challenges for environmental policy. Decision-making is examined in the context of the rights and limits of both private parties and the broad public interest. Emphasis is on the use of science in decision-making, choices between regulations and incentives, and the role of bureaucracy in resource policy. Examples of legal principles as applied to environmental regulation by federal and state governments. Case studies from air pollution, water pollution, land development, wetlands and coastal management.

Components: Lecture, Laboratory**Attributes:** Social Perspectives

ESRM 332(3) Course ID:000304 01-JAN-1901**Population and Resource Constraints**

This human ecology course places humans into the environment in historical and global contexts. Discusses systems theory as it applies to human adaptation to the environment. Studies the relations between political power, ideology, and resources, integrating concepts from ecology with those from social sciences. Theories and forecasts of human population growth and migration among regions and cultures. Social and environmental impacts of population and age distribution. Natural resource constraints on growth. Topics from land development, resource planning, environmental quality, politics, economic growth, conflicts and wars.

Components: Lecture**Same As Offering:** ANTH 332**Attributes:** Social Perspectives

ESRM 410(3) Course ID:000305 01-JAN-1901**Environmental Impact Analysis**

Required components of environmental impact reports and assessments, and the processes involved in preparation and approval. Problems related to environmental impacts, mitigation, alternatives, benefits, costs, and consequences.

Components: Lecture**Requirement Group:** Prerequisites: BIOL 330, ECON 362, ESRM 328 and 330

ESRM 481(3) Course ID:000307 01-JAN-1901**Topics in Environmental Pollution**

Analysis of pollution transformation and transport. Impacts on human and natural systems. Examples from tropospheric air pollution, water pollution, soil pollution, climate change. May be repeated for credit, with permission.

Components: Lecture**Requirement Group:** Prerequisites: BIOL 330 and 432, CHEM 250 and 251

ESRM 482(3) Course ID:000306 01-JAN-1901**Topics in Environmental Planning and Resource Management**

Topics from land use planning and urban development, forest management, integrated water resource planning and demand-side management, surface water run-off, air quality management, coastal development and planning, marine protected area planning and management, preservation of cultural and natural heritage, recycling and waste management, and power plant siting.

Components: Lecture**Requirement Group:** Prerequisites: BIOL 330, ECON 362, ESRM 330

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Environment Sci & Resource Mgt**ESRM 483(3)** **Course ID:000308** **01-JAN-1901****Topics in Global Resource Management**

Topics from land use planning and urban development, forest management, integrated water resource planning and demand-side management, surface water run-off, air quality management, coastal development and planning, marine protected area planning and management, preservation of cultural and natural heritage, recycling and waste management, and power plant siting.

Components: Lecture**Requirement Group:** Prerequisites: BIOL 330, ECON 362, ESRM 330**ESRM 490(3)** **Course ID:000309** **01-JAN-1901****Seminar**

This seminar explores a different topic each term. Students may enroll up to four times in different seminars.

Components: Seminar**ESRM 492(3)** **Course ID:000310** **01-JAN-1901****Service Learning/Internship**

Enrollment in this course is with permission of the faculty member in charge. Individual internship through service learning.

Components: Lecture**ESRM 494(3)** **Course ID:000313** **01-JAN-1901****Independent Study**

Individual contracted study on topics or research selected by the student for further study. Enrollment in this course is with permission of faculty member in charge.

Components: Independent Study**ESRM 497(3)** **Course ID:000317** **01-JAN-1901****Directed Study ESRM**

Reading and library research under the direction of a faculty member. Enrollment in this course is with permission of the faculty member in charge.

Components: Lecture**ESRM 499(3)** **Course ID:000320** **01-JAN-1901****Capstone**

This course consists of an interdisciplinary evaluation of the physical, biological, social, economic, and legal dimensions of environmental decision-making. The instructor will select from Southern California ecosystems and decisions with associated environmental impacts for evaluation and analysis. Examples include decisions to reduce, control, or treat surface water run-off, establishing or changing the management of marine protected areas, dredging in harbors, and permits for coastal development. Students will transmit results to appropriate national, state, or local agencies for consideration and deliberation in administrative decisions.

Components: Lecture, Field Studies**Requirement Group:** Prerequisites: BIOL 492, 494 or 497

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Finance

FIN 343(3)

Course ID:000104

01-JAN-1901

Capital Theory

Intertemporal choice and decision-making under uncertainty in our personal and financial lives. Topics include multiperiod consumption, multiperiod production, capital budgeting, modern portfolio theory and financial management.

Components: Lecture**Same As Offering:** ECON 343**Attributes:** Social Perspectives

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Geology

GEOL 121(4) Course ID:000283 01-JAN-1901

Physical Geology

This course examines the basic composition of the Earth and the dynamic forces which have altered the Earth's surface through time, including sedimentation, erosion, volcanism, earthquakes, plate tectonics, and mountain-building. Students will gain an appreciation for the immense processes affecting their environment. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Physical Sciences - Physics, Geology, Earth Sci

GEOL 122(3) Course ID:000286 01-JAN-1901

Historical Geology

This course focuses upon the geological history of the Earth and the Solar System from the origin of the cosmos to the explosion of Mt. St. Helens, tracing the evolution of the continents and ocean basins, and the broad development of plants and animals through time. Surveys events in Earth's past of relevance to present environmental issues.

Components: Lecture**Attributes:** Physical Sciences - Physics, Geology, Earth Sci

GEOL 300(4) Course ID:000288 01-JAN-1901

Foundations of Earth Science

An analysis of the Earth's physical systems and the solar system/ universe. Selected topics include climates of the world, minerals and rocks, flood hazards, aspects of physical oceanography, plate tectonics, natural resources, and the motion of planets and planetary bodies. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Physical Sciences - Physics, Geology, Earth Sci**Requirement Group:** Prerequisite: CHEM 170

GEOL 321(3) Course ID:000291 01-JAN-1901

Environmental Geology

Interrelationships between human and natural geologic hazards: tsunamis, earthquakes, landslides, subsidence, volcanoes. Explores environmental impact of resource extraction and usage. Importance of understanding the geologic processes and landscape in land use planning. Means of using geology to minimize conflicts in resource management and disaster preparation.

Components: Lecture, Laboratory**Attributes:** Physical Sciences - Physics, Geology, Earth Sci

GEOL 327(3) Course ID:000293 01-JAN-1901

Oceans and the Global Environment

Oceanography is explored to present the student with an understanding of the interrelationship between oceans and global climate. Other topics include marine geology, plate tectonics, evolution of ocean basins, coastal erosion and sea level changes, energy resources.

Components: Lecture

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: History**HIST 211(3)** Course ID:000311 01-JAN-1901**World History: Origins to 1500**

This survey examines world civilizations beginning with the Neolithic age. Topics include the development and growth of religions, economics, and other cultural institutions.

Components: Lecture**HIST 212(3)** Course ID:000312 01-JAN-1901**World History: Since 1500**

This survey examines world civilizations from both regional and global perspectives. The intellectual, political, and cultural development of nations will be among the major themes of the course.

Components: Lecture**HIST 270(3)** Course ID:000314 01-JAN-1901**The United States to 1877**

Survey of the political, social, economic as well as cultural institutions of the United States from the pre-colonial era to reconstruction. Issues of multiculturalism, race, sexuality, and gender frame many of the problems examined in the course.

Components: Lecture**HIST 271(3)** Course ID:000315 01-JAN-1901**The United States since 1865**

Survey of the political, social, economic as well as cultural institutions of the United States from the gilded age to the present. Issues of multiculturalism, race, sexuality, and gender frame many of the problems examined in the course.

Components: Lecture**HIST 280(3)** Course ID:000463 01-JAN-1901**Historian's Craft**

Need Description

Components: Lecture**HIST 331(3)** Course ID:000316 01-JAN-1901**History of Mathematics**

Study of breakthrough mathematical ideas and their creators, including historical and scientific context. Important concepts of current mathematics are studied: inception, development, difficulties, significance and various viewpoints will be presented. Lecture-discussion. At least one significant writing assignment is required.

Components: Lecture**Same As Offering:** MATH 331**Attributes:** Mathematics - Mathematics and Applications, Social Perspectives**HIST 333(3)** Course ID:000228 01-JAN-1901**History of Southern California Chicana/O Art**

A survey of the Southern California Chicano/a culture exploring the genesis, vitality and diversity represented in the painting, sculpture and artistic traditions of Mexican American artists. Historical movements, politics, cultural trends and Mexican folklore underlying the development of this dynamic style of art will be investigated within a variety of contexts.

Components: Lecture**Same As Offering:** ART 333**Attributes:** Fine Art Courses, Languages and Cultures**HIST 334(3)** Course ID:000236 01-JAN-1901**Narratives of Southern California**

Ours is a region made up of many cultures which produce the one we call Southern California. In this class we will take a historical approach to study of the narratives oral, written and filmed of Southern California. Course work may also include obtaining oral histories and compiling them.

Components: Lecture**Same As Offering:** ENGL 334**Attributes:** Languages and Cultures

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: History

HIST 335(3) Course ID:000232 01-JAN-1901

American Ethnic Images in Novels, Film and Art

An examination of the portrayal of ethnic groups from an interdisciplinary perspective that includes, but is not limited to, the literary, historical, and artistic modes of analysis. This course highlights the ways in which artistic works have shaped the intellectual landscape of the United States as they relate to ethnic peoples.

Components: Lecture**Same As Offering:** ART 335, ENGL 335**Attributes:** Languages and Cultures, Social Perspectives

HIST 349(3) Course ID:000163 01-JAN-1901

History of Business and Economics in North America

Examines the growth and development of economies of North America since colonial times. Addresses social, ethical, economic and management issues during the development of Canada, the United States and Mexico. Analyzes the business principles underlying the growth and development of the economies.

Components: Lecture**Same As Offering:** ECON 349, BUS 349**Attributes:** Social Perspectives

HIST 350(3) Course ID:000318 01-JAN-1901

Chicano History and Culture

An examination of the settlement and culture of Mexicanos in the United States to the present. Particular attention is given to the relationship of Mexicanos to the political and economic institutions of the United States.

Components: Lecture

HIST 365(3) Course ID:000319 01-JAN-1901

Themes in World Civilization Before 1500

Compares and contrasts the cultural, economic, political, and social development of World Civilizations before 1500.

Components: Lecture

HIST 366(3) Course ID:000321 01-JAN-1901

Themes in World Civilization Since 1500

Compares and contrasts the cultural, economic, political, and social development of World Civilizations since 1500.

Components: Lecture

HIST 369(3) Course ID:000322 01-JAN-1901

California History and Culture

Examines the cultural and institutional development of California prior to the 16th century and since.

Components: Lecture

HIST 370(3) Course ID:000323 01-JAN-1901

United States Colonial History

Examines the European colonization of the United States from the 1600s to the French and Indian War. The transformation of social, political, and cultural institutions of Europe in North America are studied.

Components: Lecture

HIST 371(3) Course ID:000325 01-JAN-1901

The Founding of the United States

Study of the Revolutionary era and its influence on the constitution of the nation politically as well as socially.

Components: Lecture

HIST 372(3) Course ID:000327 01-JAN-1901

United States Industrialization and Progressivism

This course examines the nation's geographic and industrial expansion. Social and political problems are concurrently examined to the end of World War I.

Components: Lecture

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: History

HIST 374(3)

Course ID:000328

01-JAN-1901

United States Since 1945

Examines the social and political movements of the nation after World War II. Among the various topics of the course, specific attention is given to how international affairs influenced domestic policy politically as well as socially.

Components: Lecture

HIST 401(3)

Course ID:000330

01-JAN-1901

United States Immigration History, 1840-1945

Examines the experiences and contributions of immigrant groups in the United States. Constitutional, political, and social considerations of United States immigrant history frames the content study of this course.

Components: Lecture

HIST 402(3)

Course ID:000332

01-JAN-1901

Southern California History and Culture

Examines the cultural, economic, political, and social experience of Mexicanos of the region since the American conquest to the 1990s. Particular attention is given to the interactions of this community with other ethnic and racial groups. Although designed within the disciplinary framework of history, the course utilizes literature, film, and art as mediums of learning about the culture and history of Chicanos. (G.E.)

Components: Lecture

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Health

HLTH 322(2)

Course ID:000342

01-JAN-1901

Health For Educators

Survey of school health programs with in-depth study of selected health education curricula and topic areas, including alcohol, tobacco, drugs, communicable diseases and nutrition. Development of strategies and methods for teaching controversial areas.

Components: Lecture

HLTH 344(3)

Course ID:000344

01-JAN-1901

Health Psychology

This course will focus on those areas of psychology which relate to health and medicine including, mind-body interactions, Psychoneuroimmunology, psychology as it relates to nutrition, psychology as it relates to illness, and behavioral medicine.

Components: Lecture

Same As Offering: PSY 330

Attributes: Human Psychological & Physiological Perspectives

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Liberal Studies

LS 392(1 - 3) Course ID:000348 01-JAN-1901

International Experience

Provides an opportunity for students to earn credit for travel and study in a country outside the US, where the student is immersed in a foreign language and culture. A student may, in consultation with a faculty advisor, obtain credit for his or her international experience by participating in a university-sponsored trip abroad or a personal trip abroad. In either case, a plan of study must be approved by the faculty advisor prior to the experience.

Components: Lecture**Attributes:** Languages and Cultures

LS 492(1 - 3) Course ID:000350 01-JAN-1901

Independent Research

Students design and implement a study project in conjunction with a faculty member.

Components: Independent Study**Requirement Group:** Prerequisites: Upper Division Standing in the Liberal Studies Major

LS 494(1 - 3) Course ID:000353 01-JAN-1901

Service Learning/Internship

Students design a community project, individually or in small group, related to areas studied in Liberal Studies major. The project must respond to a community need, involve participants in reciprocal activities, provide opportunities for student's on-going reflection, and evaluate the activity.

Components: Independent Study**Requirement Group:** Prerequisites: Upper Division Standing in the Liberal Studies Major

LS 497(1 - 3) Course ID:000355 01-JAN-1901

Directed Studies

Supervised project involving research or creative activity related to Liberal Studies.

Components: Independent Study**Requirement Group:** Prerequisites: Upper Division Standing in the Liberal Studies Major

LS 499(1 - 3) Course ID:000356 01-JAN-1901

Capstone Project

Provides an integration of prior subject matter by requiring teams of students to design, enlighten, and/or solve a problem. Also, provides interdisciplinary exposure to complex issues using Web, library and community-based analytical processes.

Components: Independent Study**Requirement Group:** Prerequisites: Upper Division Standing in the Liberal Studies Major

Run Time: 11:14:25

Attributes: Mathematics - Mathematics and Applications

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Mathematics

MATH 230(3) Logic Introduction to modern deductive logic. Critical thinking and abstract approach to common language. Includes abstract sets and number sets, relations, propositional logic- including common language cases, and theory of quantification. Components: Lecture	Course ID:000441	01-JAN-1901
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MATH 240(3) Introduction to Linear Algebra Vector spaces, linear transformations, orthogonality, characteristic polynomial, quadratic forms, spectral decomposition. Components: Lecture Requirement Group: Prerequisites: MATH 151	Course ID:000442	01-JAN-1901
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MATH 250(3) Calculus III Functions of several variables, solid analytic geometry, partial differentiation, multiple integrals with applications. Vector analysis, line and surface integrals. Components: Lecture Requirement Group: Prerequisites: MATH 151	Course ID:000443	01-JAN-1901
<hr/>		
MATH 300(3) Discrete Mathematics Sets, algebraic systems, axioms, definitions, propositions and proofs. Combinatorics, graph theory, moduli calculus. Coding, coding errors and Hamming codes. Students are expected to write mathematical proofs and communicate mathematical ideas clearly in written and oral form. Components: Lecture Requirement Group: Prerequisites: MATH 151, MATH 230	Course ID:000444	01-JAN-1901
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MATH 308(3) Modern Mathematics for Elementary School Teachers II- Geometry, Probability & Statistics Current issues of modern math curriculum including abstract thinking and problem solving approaches to teaching. Content covers systems of geometry and geometric interpretation of real numbers, geometric constructions, mathematical modeling, basic probability and statistics. Problem solving strategies are stressed. Designed for students intending to teach. Components: Lecture	Course ID:000445	01-JAN-1901
<hr/>		
MATH 318(3) Mathematics for Secondary School Teachers II- Geometry, Probability and Statistics Current issues of modern secondary school math curriculum including abstract thinking and problem solving approaches to teaching. Content covers systems of geometry, algebra, precalculus, calculus, probability and statistics. Designed for students intending to teach. Components: Lecture	Course ID:000446	01-JAN-1901
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MATH 330(3) Mathematics for Artists The course is specially designed for students interested in fine arts, with the emphasis on understanding geometric patterns and concepts by self explorations. Instead of concentrating on abstraction, the course creates a vast reservoir of art-related examples and hands-on experiences, and will give an innovative mathematical background for future artistic endeavors of students. Components: Lecture Attributes: Mathematics - Mathematics and Applications	Course ID:000447	01-JAN-1901
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MATH 331(3) History of Mathematics Study of breakthrough mathematical ideas and their creators, including historical and scientific context. Important concepts of current mathematics are studied: inception, development, difficulties, significance and various viewpoints will be presented. Lecture-discussion. At least one significant writing assignment is required. Components: Lecture Same As Offering: HIST 331 Attributes: Mathematics - Mathematics and Applications, Social Perspectives	Course ID:000316	01-JAN-1901
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Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Mathematics**MATH 340(3)** **Course ID:000451** **01-JAN-1901****Statistics for Business and Economics**

Introduction to modern statistical methods used in business analysis and economics, especially in experimental data evaluation and decision making contexts. Topics include: sampling, probability, various distributions, correlation and regression, statistical inferences, hypothesis testing, problem solving and the consequences to underlying economical systems. Includes a project in the community.

Components: Lecture**Attributes:** Mathematics - Mathematics and Applications**MATH 342(3)** **Course ID:000452** **01-JAN-1901****Probability and Statistics**

Data gathering, analysis and display. Validity of sampling methods and statistical conclusions. Probability, conditional probability, Bayes's Theorem, discrete and continuous random variables and their distribution (e.g., binomial, Poisson, hypergeometric, negative binomial, normal, exponential, gamma), moments, bivariate distributions, transformations of random variables, central and other limit theorems. Bayesian estimates, tests of hypotheses, nonparametric tests, decision theory. Modern computer software applications in statistics.

Components: Lecture**Attributes:** Mathematics - Mathematics and Applications**Requirement Group:** Prerequisites: MATH 151**MATH 344(3)** **Course ID:000453** **01-JAN-1901****Analysis of Algorithms**

Computer oriented study of seminumerical and non-numerical algorithms. Sorting, tree searching, generation of combinatorial structures, algorithm proof techniques, best algorithms, programming complexity, string matching.

Components: Lecture**Requirement Group:** Prerequisites: MATH 300**MATH 346(3)** **Course ID:000156** **01-JAN-1901****Scientific and Professional Ethics**

Discussion of ethical issues and societal challenges derived from scientific research and professional activities. Examines the sources, fundamental principles, and applications of ethical behavior; the relationship between personal ethics and social responsibility of organizations; and the stakeholder management concept. Applies ethical principles to different types of organizations: business, non-profits, government, healthcare, science/technology, and other professional groups. Topics also include integrity of scientific research and literature and responsibilities of scientists to society, intellectual property, ethical practices in professional fields, ethical dilemmas in using animal or human subjects in experimentation, gene cloning, animal cloning, gene manipulation, genetic engineering, genetic counseling, and ethical issues of applying biotechnology in agricultural fields. Emphasizes cases to explore ethical issues.

Components: Lecture**Same As Offering:** ANTH 346, BIOL 346, MGT 346, CHEM 346**Attributes:** Social Perspectives**MATH 350(3)** **Course ID:000454** **01-JAN-1901****Differential Equations and Dynamical Systems**

Ordinary differential equations, existence and uniqueness of solutions. Linear equations. Laplace methods. Flows and diffeomorphisms, limit sets, iterations of maps. Positive entropy systems, chaotic behavior of trajectories.

Components: Lecture**Requirement Group:** Prerequisites: MATH 250**MATH 351(3)** **Course ID:000455** **01-JAN-1901****Real Analysis**

Real number system, metric spaces, norms, function spaces. Continuity, differentiability, integrability of functions. Sequences and series.

Components: Lecture**Requirement Group:** Prerequisites: MATH 250**MATH 393(3)** **Course ID:000456** **01-JAN-1901****Abstract Algebra**

Rings, modules, fields and their extensions. Groups and group actions, crystallographic groups.

Components: Lecture**Requirement Group:** Prerequisites: MATH 300

Course Catalog

Run Date: 02/25/2003

Run Time: 11:14:25

Channel Islands - Academic Programs - Subject: Mathematics

MATH 430(3) Course ID:000354 01-JAN-1901

Research Design and Data Analysis

Discussion of experimental design, sampling methods, data collection and methods of data analysis related to scientific fields.

Components: Laboratory
Same As Offering: BIOL 430, CHEM 430
Attributes: Mathematics - Mathematics and Applications

MATH 440(3) Course ID:000407 01-JAN-1901

Operations Research

Introduction to applied mathematical methods in management sciences. Topics include linear programming, managerial optimization methods, duality and equilibrium theorems, the simplex method, development of tools and methods required to make decisions and to solve operational problems in economy, decision and risk analysis, modeling and game theory. Other topics selected from parametric programming, large scale methods, generalized programming.

Components:	Lecture
Attributes:	Mathematics - Mathematics and Applications, Social Perspectives

MATH 450(3) Course ID:000408 01-JAN-1901

Partial Differential Equations and Mathematical Physics

Vector field theory, Fourier series.

Components: Lecture
Requirement Group: Prerequisites: MATH 350

MATH 451(3) Course ID:000409 01-JAN-1901

Numerical Analysis

Techniques of applied mathematics, solution of equations, finite differences, wavelets.

Components: Lecture
Requirement Group: Prerequisites: MATH 350, COMP 151

MATH 452(3) Course ID:000410 01-JAN-1901

Complex Analysis

Complex variable, analytic functions, complex integration, power series and conformal mappings.

Components: Lecture
Requirement Group: Prerequisites: MATH 250

MATH 480(3) Course ID:000411 01-JAN-1901

Differential and Riemannian Geometry

Implicit Function theorem. Riemannian manifolds, curvature, local isometries. Gauss-Bonnet Theorem.

Components: Lecture
Requirement Group: Prerequisites: MATH 351

MATH 482(3) Course ID:000412 01-JAN-1901

Number Theory & Cryptography

Unique factorization theorem, congruencies, primitive roots and indices, quadratic residues and the law of quadratic reciprocity, distribution of primes. Cryptography.

Components: Lecture
Requirement Group: Prerequisites: MATH 300

MATH 484(3) Course ID:000413 01-JAN-1901

Algebraic Geometry & Coding Theory

Study of algebraic varieties over algebraically closed fields. Modern application to coding theory.

Components: Lecture
Requirement Group: Prerequisites: MATH 393

MATH 490(3) Course ID:000415 01-JAN-1901

Topics in Modern Mathematics

New developments in mathematics.

Components: Lecture
Requirement Group: Prerequisites: Junior Standing

Course Catalog

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Channel Islands - Academic Programs - Subject: Mathematics

MATH 492(3) **Course ID:000417** **01-JAN-1901**
Internship
Supervised work and study in industrial or scientific setting involving development of degree related skills. All students are required to present their projects at the Senior colloquium.
Components: Lecture
Requirement Group: Prerequisites: Junior Standing

MATH 494(3) **Course ID:000419** **01-JAN-1901** **Instructor Consent Required**
Independent Research
Supervised project involving theoretical research in the field of mathematics or its applications. All students are required to present their projects at the Senior Seminar.
Components: Independent Study
Requirement Group: Prerequisites: Senior standing

MATH 497(3) **Course ID:000422** **01-JAN-1901** **Instructor Consent Required**
Directed Study
Supervised project involving library research. All students are required to present their projects at the Senior Seminar.
Components: Lecture
Requirement Group: Prerequisites: Senior standing

MATH 499(1) **Course ID:000424** **01-JAN-1901**
Senior Colloquium
Oral presentation of current advancements in the field, reports on students' projects, and invited lectures.
Components: Lecture
Requirement Group: Prerequisites: Senior standing

Course Catalog

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Channel Islands - Academic Programs - Subject: Management**MGT 307(3)** Course ID:000406 01-JAN-1901**Management of Organizations**

Explores the fundamental concepts of managing people within an organizational context. Uses cases and in-class exercises to present management principles. Topics include planning, staffing, directing, measuring and controlling.

Components: Lecture**MGT 310(3)** Course ID:000405 01-JAN-1901**Management of Internnnational Business**

Identification and analysis of management systems in cross-border environments. Explores the impact of economic, social, cultural political variables on the conduct of profit-making business. Extensive use of case analysis; and a country study project.

Components: Lecture**MGT 325(3)** Course ID:000404 01-JAN-1901**Entrepreneurial Management**

Explores the management of start-up and small businesses. Concentrates on initial strategy, location, financing, staffing, daily activities and controls, taxes. Students develop a business plan for a small business.

Components: Lecture**MGT 346(3)** Course ID:000156 01-JAN-1901**Scientific and Professional Ethics**

Discussion of ethical issues and societal challenges derived from scientific research and professional activities. Examines the sources, fundamental principles, and applications of ethical behavior; the relationship between personal ethics and social responsibility of organizations; and the stakeholder management concept. Applies ethical principles to different types of organizations: business, non-profits, government, healthcare, science/technology, and other professional groups. Topics also include integrity of scientific research and literature and responsibilities of scientists to society, intellectual property, ethical practices in professional fields, ethical dilemmas in using animal or human subjects in experimentation, gene cloning, animal cloning, gene manipulation, genetic engineering, genetic counseling, and ethical issues of applying biotechnology in agricultural fields. Emphasizes cases to explore ethical issues.

Components: Lecture**Same As Offering:** ANTH 346, BIOL 346, CHEM 346, MATH 346**Attributes:** Social Perspectives**MGT 421(3)** Course ID:000403 01-JAN-1901**Human Resource Management**

Principles, methods and procedures in the management of human resources. Topics include developing planning objectives for HR management, legal compliance, job analysis, recruiting, selection, training, compensation and employee relations.

Components: Lecture**Requirement Group:** Prerequisites: MGT 307**MGT 425(3)** Course ID:000402 01-JAN-1901**Management of Educational Organizations**

Explores the principles of management of organizations and applies them to the unique environment of educational organizations. Topics include design and management of educational programs, goal setting and budgeting, resource management, differentiated staffing, performance measurement and special problems in school administration.

Components: Lecture**Requirement Group:** Prerequisites: MGT 307**MGT 426(3)** Course ID:000401 01-JAN-1901**Management of Healthcare Organizations**

Explores the principles of management of organizations and applies them to the unique environment of healthcare organizations. Topics include volatile environment, escalating costs, identification of stakeholders, organizational design, use of technology, quality control, and special issues in healthcare management (bio-ethics, chemical dependency, stress, workforce diversity).

Components: Lecture**Requirement Group:** Prerequisites: MGT 307

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Channel Islands - Academic Programs - Subject: Management

MGT 427(3)

Course ID:000399

01-JAN-1901

Management of Not-For-Profit Organizations

Explores the principles of management of organizations and applies them to the unique environment of not-for-profit organizations. Topics include differences with profit-making organizations, identification of stakeholders, organizational and governance structure, financial sources, reward processes and accountability measures.

Components: Lecture**Requirement Group:** Prerequisites: MGT 307

Course Catalog

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Channel Islands - Academic Programs - Subject: Marketing

MKT 310(3)

Course ID:000400

01-JAN-1901

Principles of Marketing

Presents and analyzes the fundamental principles of modern marketing: planning, pricing, distribution, and promotion. Applies the principles to products and services. Topics include market research, consumer behavior and market success measures. Focuses on domestic and international markets.

Components: Lecture

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MUS 333(3) Course ID:000398 01-JAN-1901

Components: Lecture

Requirement Group: Prerequisites: Upper division standing

Course Catalog

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Channel Islands - Academic Programs - Subject: Physical Education

PHED 101(1) Course ID:000395 01-JAN-1901

Walking for Health

Knowledge of cardiovascular fitness, including walking as aerobic exercise. Physical development through cardiovascular training, muscle strengthening, and stretching.

Components: Lecture

PHED 102(1) Course ID:000394 01-JAN-1901

Seminar in Traditional Asian Martial Arts Tai Ji

Development of personal skills in traditional martial and health arts. Understanding history, cultural background, patterns, and strategies for participation in and effects on personal health.

Components: Lecture

PHED 103(1) Course ID:000391 01-JAN-1901

Yoga

Development of personal skills in yoga. Understanding of effects on strength, flexibility and mind body connections.

Components: Lecture

PHED 105(1) Course ID:000390 01-JAN-1901

Zen of Surfing

Exploration into the physiological and psychological benefits that result from human interaction with forces of nature. Students develop an increased understanding of the ocean and complex dynamics that underlie the sport of surfing. The interrelationship between physical activity and personal aesthetics are explored through weekly surfing activities.

Components: Lecture

PHED 302(2) Course ID:000389 01-JAN-1901

Motor Learning, Fitness and Development in Children

Factors affecting motor learning; theories of learning and their application to the learning of physical skills; motor learning at beginning through advanced skill levels; health, fitness and activities for children; planning and teaching age appropriate developmental movement experiences.

Components: Lecture

Course Catalog

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Channel Islands - Academic Programs - Subject: Physics

PHYS 200(4)

Course ID:000386

01-JAN-1901

General Physics I

An introduction to the properties of matter, classical mechanics, wave motion and thermal physics. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Physical Sciences - Physics, Geology, Earth Sci**Requirement Group:** Prerequisites: MATH 150

PHYS 201(4)

Course ID:000387

01-JAN-1901

General Physics II

An introduction to electromagnetic theory, light, and atomic and nuclear physics. A lab fee is required.

Components: Lecture, Laboratory**Attributes:** Physical Sciences - Physics, Geology, Earth Sci

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Channel Islands - Academic Programs - Subject: Psychology**PSY 100(3)** **Course ID:000385** **01-JAN-1901****Introduction to Psychology**

The purpose of this course is to introduce the theories, research and applications that constitute the field of psychology as it is broadly defined. Students will learn about the field of psychology through lectures, discussions, demonstrations, group activities, and multi-media presentations. Emerging issues in the field of psychology, what different types of psychologists do, and how to critically evaluate psychological literature will be covered.

Components: Lecture**Attributes:** Human Psychological & Physiological Perspectives**PSY 200(3)** **Course ID:000383** **01-JAN-1901****History and Systems of Psychology**

This course examines the historical development of psychological thought and methodology from its origins in philosophy, its attempts to become a natural science, through the diaspora of contemporary psychological thought. The major schools of psychology (e.g., Behaviorism, Cognitive, Gestalt, Humanistic, Psychoanalysis), will be explored in context of their philosophical and cultural influences.

Components: Lecture**PSY 210(3)** **Course ID:000380** **01-JAN-1901****Learning, Cognition and Development**

This course presents an overview of the theories of learning and human development. Major theories of learning and of psychological, emotional and ethical development will be addressed across the lifespan from birth to old age, with consideration given to the application of these theories in real life setting such as schools and other organizations.

Components: Lecture**Attributes:** Human Psychological & Physiological Perspectives**PSY 212(3)** **Course ID:000275** **01-JAN-1901****Neurobiology and Cognitive Science**

Principles of brain organization and function underlying behavior. Topics include neuroanatomy and physiology of language, vision, sexual behavior, memory and abnormal behavior.

Components: Lecture**Same As Offering:** BIOL 212**Attributes:** Life Science - Biology, Chemistry, Biochemistry, Human Psychological & Physiological Perspectives**PSY 215(3)** **Course ID:000378** **01-JAN-1901****Cognition & Learning**

This courses examines psychological theories of cognition as they apply to learning. Theories introduced in this course will seek to explain learning phenomena and provide a conceptual framework for understanding and discussing behavior and cognition. Practical applications and current research in the cognitive sciences will also be discussed.

Components: Lecture**PSY 220(3)** **Course ID:000376** **01-JAN-1901****Human Sexual Behavior**

This course covers knowledge about the processes and variations in: sexual functions and reproduction; intimate relationships; sexual and gender role development and behavior; and the social, cultural, historical and moral contexts of sex and love.

Components: Lecture**Attributes:** Human Psychological & Physiological Perspectives**PSY 330(3)** **Course ID:000344** **01-JAN-1901****Health Psychology**

This course will focus on those areas of psychology which relate to health and medicine including, mind-body interactions, Psychoneuroimmunology, psychology as it relates to nutrition, psychology as it relates to illness, and behavioral medicine.

Components: Lecture**Same As Offering:** HLTH 344**Attributes:** Human Psychological & Physiological Perspectives

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Channel Islands - Academic Programs - Subject: Psychology

PSY 333(3) Course ID:000374 01-JAN-1901

Measurement & Testing of Groups and Individuals

This course covers the principles of measurement as applied to group standardized measures of achievement, special aptitude, intelligence, personality, and interest for use in educational settings. This course will also survey the administering, scoring, and interpreting of these measures. Language and culture issues related to testing will be discussed.

Components: Lecture

PSY 338(3) Course ID:000234 01-JAN-1901

Psychology of Art and Artists

An inquiry into the mind of the artist and the psychological dynamics that underlie the creative process. Emphasis is placed on deciphering personal allegory and universal symbolism hidden within a wide range of visual and conceptual genres in painting, sculpture, film and music. The self-image of the artist will be examined from private and public viewpoints.

Components: Lecture**Same As Offering:** ART 338**Attributes:** Fine Art Courses, Human Psychological & Physiological Perspectives

PSY 339(3) Course ID:000239 01-JAN-1901

Psychopathology in Literature

This course is co-developed and co-taught by faculty from Psychology and English. Human psychology and its manifestations in literature are the topics of the course, and students will use skills from both disciplines to address the ideas and issues presented by the literature.

Components: Lecture**Same As Offering:** ENGL 339**Attributes:** Literature Courses, Human Psychological & Physiological Perspectives

PSY 341(3) Course ID:000152 01-JAN-1901

Culture and Personality

This course provides a cross-cultural perspective on the relationships between culture and personality. The nature/nurture debate is examined in different cultures. Team taught with psychology.

Components: Lecture**Same As Offering:** ANTH 341**Attributes:** Social Perspectives, Human Psychological & Physiological Perspectives

PSY 344(3) Course ID:000371 01-JAN-1901 Instructor Consent Required

Psychology and Traditional Asian Thought

This course examines the differences and similarities between the Western practice of psychology and traditional Asian systems of philosophy and religion. Concepts of health, well-being & enlightenment, and pathology will be considered from both Western and Asian viewpoints. Particular attention will be given to Buddhism, Taoism, and depth psychologies. Readings will be drawn from classical Asian literature as well as contemporary psychology. Mediation and other practices will be explored the context of Western Psychology.

Components: Lecture**Attributes:** Human Psychological & Physiological Perspectives

PSY 345(3) Course ID:000365 01-JAN-1901

Individuals with Disabilities & Society

Major types of disabilities and giftedness, including definitions, causes, characteristics, and educational implications. Disability perspectives. Social, legal, and educational considerations of disability issues.

Components: Lecture**Same As Offering:** SPED 345

PSY 346(3) Course ID:000465 01-JAN-1901

Psych of Motivation

Need description

Components: Lecture

Course Catalog

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Channel Islands - Academic Programs - Subject: Psychology**PSY 349(3)** **Course ID:000363** **01-JAN-1901****Traditional and Alternative Views of Healing**

This course surveys the history and cultural contexts of health and healing from around the world. Through presentations of different medical traditions, the psychological, cultural, practical, and spiritual dimensions of traditional and alternative healing systems will be elucidated. When appropriate the empirical, theoretical and scientific foundations of selected healing systems will be discussed. This course will also attempt to place traditional Western modes of healing including biomedicine and clinical psychology in context of some of the other traditions.

Components: Lecture**PSY 350(3)** **Course ID:000362** **01-JAN-1901****Clinical & Counseling Psychology**

This course introduces students to the clinical practice of psychology. The major theories of psychotherapy and the process of psychotherapy will be covered as well as other modalities for the treatment of mental and behavioral disorders such as learning therapies and psychopharmacology. The course will also seek to develop an awareness of ethnic and cultural differences related to the practice of psychology.

Components: Lecture**PSY 355(3)** **Course ID:000361** **01-JAN-1901****Organizational and Industrial Psychology**

This course surveys the field of industrial/organizational Psychology. Subfields of personnel psychology, human factors engineering, industrial social, and industrial clinical Psychology will be viewed from practical and theoretical perspectives. The course will also cover concepts of organizational development, communication, and corporate group behavior.

Components: Lecture**PSY 457(3)** **Course ID:000360** **01-JAN-1901****Criminal Behavior**

This course introduces students to the fundamentals of criminal psychology through the study of the psychological factors which relate to or cause criminal behavior in individuals. The practice of forensic psychology, the legal system, law enforcement psychology, prison psychology, and the criminal behavior of groups will also be discussed.

Components: Lecture**Attributes:** Human Psychological & Physiological Perspectives**PSY 461(3)** **Course ID:000359** **01-JAN-1901****Advanced Topics in Child and Adolescent Development**

This course represents an in-depth study of aspects of growth and development which influence behavior of school-age children and adolescents. Using primary sources and current research findings students will gain an understanding of research methods in child development and a critical appreciation of the practice of child psychology. Different areas of child and adolescent development will be considered from cross-cultural perspectives.

Components: Lecture**PSY 473(3)** **Course ID:000358** **01-JAN-1901****Bizarre Behavior and Culture Bound Syndromes**

This course examines behaviors which seem to be at the extreme edge of the human repertoire. Nevertheless, such behaviors have at different times and cultures been considered normal. Students in this course will examine such behaviors with an open mind, while attempting to understand that so-called normal behaviors in our own culture could be construed as "bizarre".

Components: Lecture**Attributes:** Human Psychological & Physiological Perspectives**Requirement Group:** Prerequisite: PSY 350**PSY 482(3)** **Course ID:000357** **01-JAN-1901** **Instructor Consent Required****Seminar in Quantitative Methods**

This course examines the application of various quantitative methodologies in detail. Topics can vary but may include non-parametric methods such as logistic, survival analysis, and non-linear regression.

Components: Seminar

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Channel Islands - Academic Programs - Subject: Psychology**PSY 483(3)** Course ID:000170 01-JAN-1901**Qualitative Research Methods in the Social Sciences**

This course provides the student with an understanding of how social scientists collect and analyze data. Explores methods and procedures used in anthropology research, including creating a research design, interviewing, cross-verifying data, and interpreting data. This course also details the various methods employed by ethnographers, folklorists, and oral historians in collecting oral testimony in a structured, systematic method. Particular attention is given to ethical and legal issues.

Components: Lecture**Same As Offering:** ANTH 483**PSY 489(1 - 3)** Course ID:000345 01-JAN-1901**Advanced Topics in Psychology**

A seminar course, which provides an in-depth study of some aspect of psychology. Content varies and so the course is repeatable.

Components: Lecture**PSY 492(1 - 3)** Course ID:000340 01-JAN-1901 **Instructor Consent Required****Psychological Internship or Service Learning**

Supervised work/volunteer experience in an appropriate setting with supervision in the field from an appropriate person with credentials and/or experience in a specialty related to psychology. Students are required to write a report of their experience.

Components: Lecture**PSY 494(1 - 3)** Course ID:000337 01-JAN-1901 **Instructor Consent Required****Independent Research in Psychology**

Research project for undergraduate students supervised by members of the psychology faculty. Research to be elected on basis of interest of student. A written report of the research is required.

Components: Lecture**PSY 497(1 - 3)** Course ID:000335 01-JAN-1901 **Instructor Consent Required****Directed Study in Psychology**

An intensive study of some aspect of psychology, Usually via an in-depth review of the literature. Intended for undergraduate students supervised by members of the psychology faculty. A written report summarizing the study is required.

Components: Lecture**PSY 499(1 - 3)** Course ID:000333 01-JAN-1901**Senior Capstone Course**

This course is an interdisciplinary experience in which students work in teams, contributing their expertise to a community-based project group.

Components: Lecture

Course Catalog

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Channel Islands - Academic Programs - Subject: Special Education

SPED 345(3)

Course ID:000365

01-JAN-1901

Individuals with Disabilities & Society

Major types of disabilities and giftedness, including definitions, causes, characteristics, and educational implications. Disability perspectives. Social, legal, and educational considerations of disability issues.

Components: Lecture**Same As Offering:** PSY 345

Course Catalog

Run Date: 02/25/2003

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Channel Islands - Academic Programs - Subject: Theatre

TH 333(3) Course ID:000235 01-JAN-1901

Multicultural Drama in Performance/Production

America is a country of many cultures, and each of these has brought legacies of its roots to the American stage. In this course we will read plays written by Native Americans, Hispanic Americans, Asian Americans, African Americans and others. We will also stage mini productions of one or more of those plays.

Components: Lecture
Same As Offering: ENGL 333
Attributes: Literature Courses, Languages and Cultures

TH 410(3) Course ID:000243 01-JAN-1901

Shakespeare's Plays

Study of the many aspects of Shakespeare's plays as literature, language, context, form and style, as well as the ways in which these elements work as parts of a whole, which includes spoken speech and other sounds as well as physical form and movement. Choices are: Shakespeare's Early Plays (pre-1600) and Shakespeare's Later Plays (post-1600).

Components: Lecture
Same As Offering: ENGL 410
