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Africana Studies Courses

AFAS 101 - Intro to Africana Studies

Provides an overview of the experience, culture, and political practices of African descendants in the Americas and the Caribbean. The course uses a multidisciplinary approach to introduce students to the history, art, music, and literature of the African Diaspora.

Credits: 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

AFAS 201 - Cross Currents in AFAS

With a temporal focus on the 20th century, this course critically explores and analyzes the cultural, political and intellectual practices of blacks in North, Central, and South America as well as in the Caribbean.

Credits: 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

AFAS 250 - African American Herstories

Students gain insights into three distinct historical periods of African American (American) History and a cross section of African American life through the reading, analysis, and discussion of selected African American women's autobiographies.

Credits: 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

AFAS 295 - Special Topics in AFAS

Provides student with the opportunity to explore specific topics in Africana Studies. Courses focus on such issues as Caribbean literature, Latin American History and Political, Black Women's History in the U.S. the Harlem Renaissance, and Blacks in Science. Uses lectures, films, and discussions. May be repeated for credit.

Credits: 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

AFAS 298 - Independent Study for Minors

Independent study allows students to work one on one with professors in a specific area of Africana Studies. It is designed for minors but non-minors may ask for special permission from the director. Students' past topics have included comparative women's history, race and science, and entrepreneurship of color. May be repeated twice for credit.

Credits: .50 to 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

AFAS 301 - Politics of Hip Hop

This class in an interdisciplinary, socio-historical introduction to rap music and hip hop culture. Several themes will be explored including the origins of rap music as well as the role of urban youth and their notions of race and gender. Record industry practices will also be investigated together with the impact of commercialism on hip hop. We will also consider sexism, misogyny, and violence in both the music and culture.

Credits: 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

AFAS 310 - Women, Crime, & History

This class will examine gender, race and crime in US history. Specifically, we will explore the experience of female criminals from the colonial period to the present. We will conduct primary research into this subject at the Philadelphia City Archive (PCA), located at 3101 Market Street. Students will be responsible for a final research paper based on their research findings.

Credits: 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

AFAS 385 - Rum, Rice and Revolution: Caribbean History

Course provides a broad, interdisciplinary and socio-historical introduction to the Caribbean. Several themes are covered including empire and the making of the Caribbean; slavery and emancipation; labor formation and race; revolution and resistance; gender oppression and women's experiences; and cultural expressions.

Credits: 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

AFAS 395 - Special Topics in AFAS

Provides students with the opportunity to explore specific topics in Africana Studies - but is an upper division course. Courses focus on such issues as Caribbean literature, Latin American History and Politics, Black Women's History in the US, the Harlem Renaissance, and Blacks in Science. Uses lectures, films, and discussion. May be repeated up to three times for credit if topics vary.

Credits: 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

AFAS 401 - Urban Social Justice Practicum I

The Urban Social Justice Practicum offers Drexel students an exciting opportunity to work on-site at a variety of community based organizations that address issues relevant to the African Diaspora. Students can work as mentors, teaching assistants, and interns and inner-city schools, governmental agencies, judicial offices and health care facilities. Working 5 hours per week at a site of their choosing, students also participate in weekly seminars, maintain journals, and complete a final paper. Course runs over two quarters.

Credits: 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

AFAS 402 - Urban Social Justice Practicum I

The Urban Social Justice Practicum offers Drexel students an exciting opportunity to work on-site at a variety of community based organizations that address issues relevant to the African Diaspora. Students can work as mentors, teaching assistants, and interns and inner-city schools, governmental agencies, judicial offices and health care facilities. Working 5 hours per week at a site of their choosing, students also participate in weekly seminars, maintain journals, and complete a final paper. Course runs over two quarters.

Credits: 3.00

College: Arts and Sciences

Department: Afro-American Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

Pre-Requisites: AFAS 401 Minimum Grade: CR

Anthropology Courses

ANTH 101 - Introduction to Cultural Diversity

Examines the diversity that exists in human culture. Uses lectures, films, and discussions to examine and illustrate the relationship between humans and their social/cultural systems.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ANTH 110 - Human Past: Anthropology and Prehistoric Archeology

Examines human origins from the australopithecines to the present, including both the physiological and archaeological records. Discusses new finds and new interpretations of evolution.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ANTH 120 - Biblical Archaeology Israel/Jordan

Examines the archaeology of Israel and Jordan from the earliest human occupation until the Persian Conquest in 535 B.C. Discusses many places described in the Old Testament in an archaeological context.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

ANTH 210 - Worldview: Science, Religion and Magic

Examines anthropological and archaeological evidence of the worldviews of non-literate people, as shown in the practice of ceremony, magic, sorcery, and witchcraft, and the role of shamans and priests.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

Freshman

ANTH 212 - Topics in World Ethnography

Examines the peoples and cultures of the selected cultural areas.

Emphasizes indigenous cultures and the effects of modernization on these cultures.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

ANTH 215 - Anthropology of Gender

This course takes an ethnographic approach to the study of gender socializations and gender roles. We will address issues of sex roles, the cultural construction of gender categories, the forms of gender inequality, and the ways cultures engage in gender based power relationships. While these issues will be dealt with in specific and local ethnographic contexts, students will be encouraged to make comparisons across the contexts and to compare these works with their own experience.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ANTH 220 - Aging In Cross-Cultural Perspective

Examines the status, roles, and treatments of elderly people in various societies throughout the world and among minority groups in the United States.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

ANTH 240 - Urban Anthropology

This course will give students the opportunity to familiarize themselves with the major themes in urban anthropology and how they relate to other areas of research in anthropology and the social sciences in general. Students will focus on the research methods used by urban anthropologists as well as read different ethnographic cases of urban life.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

ANTH 255 - Psychological Anthropology

The course is an overview of the field of Psychological Anthropology. It examines issues live nature vs. nurture; personality and "madness"; ethnopsychologies; and cognition. The attempt is to always recognize the salience and significance of culture when considering these issues.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

ANTH 310 - Society In Transition: Modern and Third World

Looks at the impact of 20th-century technology on traditional societies. Uses area studies from Africa, Asia, and elsewhere to explore institutions such as the family, the polity, the economy, and religion.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

ANTH 312 - Approaches to Intercultural Behavior

Examines theory and case studies related to working and living outside the United States. Includes topics such as culture shock, cultural relativity, and ethnocentrism. Selects specific geographic culture areas for case studies.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

ANTH 330 - Media Anthropology

This course will introduce students to the anthropological study of media including traditional forms of mass media as well as new media such as the Internet. Students will be exposed to the theories and methodologies of media study from an anthropological perspective. Students will also engage in their own ethnographic studies of media to gain first hand experience with the methods of anthropology.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

ANTH 355 - Anthropology of Cyberspace

This course will focus on how the internet and new media have changed the way we think about space and time, the ways we work and engage in leisure activities. We will bring the approach of anthropology to the study of these new media in order to ask key questions about social life.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

ANTH 360 - Culture and the Environment

This course explores the interplay between culture and the environment by examining both ethnographic accounts from around the world and archeological materials from the last 14,000 years. Special attention is paid to the changing cultural view of the environment over the last two centuries.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

ANTH 363 - Sacred Traditions of the East

This course introduces the student to sacred traditions of Asia: Hinduism, Buddhism and Confucianism. It will attempt a historical-comparative investigation of these traditions. It will emphasize the practice and philosophical underpinnings of these traditions, as well as the interplay between integration of the folk or popular aspects and the abstracts or esoteric.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ANTH 365 - Family and Kinship

The course investigates the concepts of family and kinship from an anthropological perspective. It looks at the family as a critical and contradictory location at the intersection of global and transnational forces. Using anthropological concepts such as status and role, it will explore changing gender relationships, sexual expression, parenting and aging.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

ANTH 370 - Ethnographic Methods

The course introduces students to ethnographic research methods through eight hands-on assignments: 1) selecting a site; 2) establishing rapport; 3) operationalizing hypotheses; 4) using qualitative and quantitative data gathering techniques; 5) taking field notes ; 6) analyzing data collected; 7) synthesizing these data; and 8) writing an ethnographic report.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

ANTH 380 - Special Topics in Anthropology

This course will explore current issues and debates in Anthropology. It will be conducted as a seminar. The topic will vary each term.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

ANTH 390 - Seminar in Ethnography

The Seminar in Ethnography is a course for anthropology majors. This is a peer-mentoring practicum where students are given the opportunity to present their own ethnographic fieldwork and get feedback from other students in the seminar. All anthropology majors will be in the seminar together. Juniors and seniors will be presenting mature research as well as mentoring the freshmen and sophomores.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):
Anthropology

ANTH 410 - Cultural Theory

Explores controversial issues and questions, such as sociobiology and what it means to be human, as they have been and are being studied by those concerned with human origins and development. Reviews major thinkers in the history and theory of anthropology, including modernists and postmodernists.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

ANTH 499 - Directed Studies in Anthro

Provides supervised study of special subjects in anthropology. See department for topics and terms offered.

Credits: 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Arabic Courses

ARBC 101 - Arabic I

Introductory Arabic includes listening, speaking, reading and writing. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ARBC 102 - Arabic II

Continues ARBC 101. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ARBC 101 Minimum Grade: D

ARBC 103 - Arabic III

Continues ARBC 102. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ARBC 102 Minimum Grade: D

ARBC 201 - Arabic IV

Introductory Arabic class. Includes listening, speaking, reading and writing, with individual audio lingual practice.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: ARBC 103 Minimum Grade: D

ARBC 202 - Arabic V

Continues ARBC 201. Introductory Arabic class. Includes listening, speaking, reading and writing, with individual audio lingual practice.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: ARBC 201 Minimum Grade: D

ARBC 203 - Arabic VI

Continues ARBC 202. Introductory Arabic class. Includes listening, speaking, reading and writing, with individual audio lingual practice.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: ARBC 202 Minimum Grade: D

ARBC 301 - Arabic VII

Advanced Arabic. Includes reading, writing, and extensive conversational practice.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: ARBC 203 Minimum Grade: D

ARBC 302 - Arabic VIII

Continues ARBC 301. Provides advanced practice in translation, comprehension, and written and oral conversation.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: ARBC 301 Minimum Grade: D

ARBC 303 - Arabic IX

Continues ARBC 302. Provides advanced practice in translation, comprehension, and written and oral conversation.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: ARBC 302 Minimum Grade: D

ARBC 399 - Arabic Adv Independent Study

Provides supervised study of special topics in Arabic language and literature. Scheduled as needed. May be repeated for credit.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: ARBC 303 Minimum Grade: D

ARBC 411 - Arabic - Introduction to Arabic Stylistics

Fourth year of Arabic -- provides advanced practice in translation, comprehension, and written and oral communication.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: ARBC 303 Minimum Grade: D

ARBC 471 - Arabic Civilization

ARBC 471 presents an integrated approach in Arabic to the civilization, culture, history, and literature specific to the areas in which the language is spoken, with emphasis on the development and evaluation of cultural values.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: ARBC 303 Minimum Grade: D

ARBC 480 - Arabic Minor Thesis Course

Independent research study on a topic selected by the student. Independent study is supervised by a faculty member and guided by a plan of study. At the end of the course, the student is required to produce a paper and oral defense on the topic of his paper.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Arts & Sciences-Interdisciplinary Study Courses

AS-I 103 - AIDS 101

Offers a multidisciplinary approach to studying the aids epidemic. Includes service-learning as a means of understanding and affecting the epidemic.

Credits: 3.00

College: Arts and Sciences

Department: COAS Admin (Humanities) Hist

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

AS-I 180 - Interdisciplinary Study in the Arts & Sciences

Designed for courses that offer a multidisciplinary approach to the study of issues and topics in the Arts and Sciences.

Credits: 1.00 to 3.00

College: Arts and Sciences

Department: Office of the Dean, Arts & Sci

Restrictions:

Must be enrolled in one of the following Program Level(s):

Graduate Quarter

Undergraduate Quarter

AS-I 265 - Spec Interdis St Arts/Sci

Credits: .50 to 6.00

College: Arts and Sciences

Department: COAS Admin (Humanities) Hist

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Bioscience & Biotechnology Courses

BIO 102 - Biology I: Cells and Tissues

Covers function of cells and tissues at the molecular, cellular, and organ level, with emphasis on human physiology.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not be enrolled in one of the following Major(s):

Biological Sciences

Co-Requisites: EXAM 080

BIO 104 - Biology II: Growth and Heredity

Covers growth and development of selected lower and higher organisms, with emphasis on the replication, transmission, and regulation of genetic material.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not be enrolled in one of the following Major(s):

Biological Sciences

Co-Requisites: EXAM 080

BIO 106 - Biology III: Organismal Biology

Examination of the various forms of life, with emphasis on evolutionary relationships, environmental interaction, and economic importance.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not be enrolled in one of the following Major(s):

Biological Sciences

Co-Requisites: EXAM 080

BIO 121 - Physiology and Nutrition

An introduction to the physiological systems of animals with particular attention to the role nutrients play in maintaining proper function. Systems covered include digestive, respiratory, circulatory, and excretory. Control mechanisms to maintain homeostasis are included. The structure and function of nutrient molecules and their food sources will be examined.

Credits: 4.50

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Co-Requisites: EXAM 080

BIO 122 - Cells and Genetics

An introduction to the concepts of cell and function, cell and reproduction, cell communication, genetic inheritance, and population genetics. The relevance of genetics to society and ethical issues are included.

Credits: 4.50

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Co-Requisites: EXAM 080

Pre-Requisites: BIO 115 Minimum Grade: D or BIO 121 Minimum

Grade: D or TDEC 122 Minimum Grade: D or BIO 141 Minimum Grade:

D

BIO 123 - Organismal Diversity & Ecology

An exploration of the diversity of organisms and their interactions in the biosphere. Using an evolutionary perspective, representative organisms from the three domains of life will be examined plus viruses and prions. Behavioral, population, and community ecology will be investigated as well as the environmental impact of human activity.

Credits: 4.50

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Co-Requisites: EXAM 080
Pre-Requisites: BIO 117 Minimum Grade: D or BIO 122 Minimum Grade: D

BIO 141 - Essential Biology

Introduces essential biological concepts to engineering students. Content covers five core topics: cells, genetics, evolution, ecology and physiology with application to societal concerns about biotechnology, health, conservation biodiversity and bioethics. Evolution will be woven throughout the course as a unifying theme in understanding all aspects of biology.

Credits: 4.50

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Must be enrolled in one of the following College(s)/School(s):

College of Engineering

Sch. of Biomed Engr, Sci & Hlth

May not be enrolled in one of the following Major(s):

Computer Science

Co-Requisites: EXAM 080

Pre-Requisites: CHEM 102 Minimum Grade: D

BIO 151 - Applied Biology

Provides an introduction to biology with an emphasis on application in modern society. Presents energy flow through biological systems as the focus through which genetics, cellular and tissue metabolism, and ecosystems can be analyzed and understood. Examines examples relevant to biotechnology, medical ethics, and ecological issues.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not be enrolled in one of the following Major(s):

Biological Sciences

Co-Requisites: EXAM 080

BIO 153 - Anatomy and Physiology I

Introduction to the basics of human anatomy and physiology with an emphasis on topics of special interest to those in clinical curricula. Topics covered include organization of the body, chemical basis for life, cellular physiology, tissue types, skin as an organ system, skeletal and muscular systems.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: (BIO 121 Minimum Grade: D or BIO 115 Minimum Grade: D) and CHEM 101 Minimum Grade: D

BIO 154 - Anatomy and Physiology II

Introduction to the basics of human anatomy and physiology with an emphasis on topics of special interest to those in clinical curricula. Systems covered included blood/lymph, immune, stress, GI tract, respiratory and cardiovascular systems.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 153 Minimum Grade: D

BIO 155 - Anatomy & Physiology III

Introduction to the basics of human anatomy and physiology with an emphasis on topics of special interest to those in clinical curricula. Systems to be covered include urinary anatomy and physiology, central, peripheral and autonomic nervous systems, special senses, endocrinology, reproduction, development and heredity.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Graduate Quarter

Pre-Requisites: BIO 154 Minimum Grade: D

BIO 161 - General Biology I

Covers structure and function of the cell and the organ-system plan of organization of the human body. Fall.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

BIO 162 - General Biology II

Continues BIO 161. Covers the mechanics of heredity, including growth, differentiation, and development. Winter.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 161 Minimum Grade: D

BIO 163 - General Biology III

Continues BIO 162. Covers the plant and animal kingdoms, radiobiology, evolution, and ecology. Spring.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 162 Minimum Grade: D

BIO 164 - General Biology Lab I

In this course students will perform computer simulations of laboratory exercises related to photosynthesis, enzyme activity and kinetics, the cardiovascular, muscle and bone systems, regulation of human organ systems as well as plant growth and development.

Credits: 1.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: BIO 161

BIO 165 - General Biology Lab II

In this course students will perform computer simulations of laboratory exercises related to cell division, mendelian genetics, DNA replication, translation and mutations. They will work with simulated microscopes to observe viral and microbial specimens. Additionally, students will learn and simulate biotechnology techniques such as DNA fingerprinting.

Credits: 1.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: BIO 162

Pre-Requisites: BIO 161 Minimum Grade: D

BIO 166 - General Biology Lab III

Involves experiments demonstrating the key principles in ecology and evolution including: population parameters, food webs, species interactions, succession, eutrophication, natural selection, sexual selection and evolutionary trees.

Credits: 1.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program(s):

BS G Online

BS in Nursing On Line for US

BS in Nursing-Online

BS-A&S Humanities ONL

BS-COEPS Online

BS-Education ONL

BSBA Online

Bachelor of Science AS ONL

Bachelor of Science CNH UG ONL

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: BIO 163

Pre-Requisites: BIO 162 Minimum Grade: D

BIO 201 - Human Physiology I

Intensive survey of the basic physiological mechanisms of cellular and human electrophysiology and the physiology of the muscular, cardiovascular, respiratory, renal, and gastrointestinal systems.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: BIO 214 Minimum Grade: D or TDEC 122 Minimum

Grade: D or BIO 141 Minimum Grade: D or BIO 122 Minimum Grade: D

BIO 202 - Human Physiology Laboratory

Laboratory course in human physiology. Designed to accompany BIO 201 and 203 Human Physiology I and II. Uses simulation, experimenters and data acquisition techniques to provide practical experience in the design and execution of physiological experiments and analysis of physiological data.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 201 Minimum Grade: D

BIO 203 - Human Physiology II

Intensive survey of the control mechanisms of cellular and human physiology including introductions to control theory, neurophysiology, endocrine control, and control mechanisms in locomotion, cardiovascular, respiratory, renal, acid/base, gastrointestinal, and reproductive physiology.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: BIO 201 Minimum Grade: D

BIO 210 - Biology of Cancer

An introduction to the biological basis of cancer. Topics include: a descriptive overview of cancer development; the genetic basis of the disease; familial cancer; chemical and other carcinogens; risk factors associated with cancer; preventive measures, current and future treatments; and nutritional aspects of cancer prevention treatment.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 122 Minimum Grade: D or BIO 117 Minimum

Grade: D

BIO 212 - Biotechnology

Covers the use of recombinant DNA techniques in biotechnology. Explores the many uses of biotechnology in the biological, agricultural and medical field. Also covers the social, ethical and environmental issues involved in this discipline.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 104 Minimum Grade: D or BIO 117 Minimum

Grade: D or BIO 122 Minimum Grade: D or TDEC 122 Minimum Grade:

D or BIO 141 Minimum Grade: D

BIO 214 - Principles of Cell Biology

The course familiarizes students with the basic fundamentals and principles of cell biology. Topics include protein and enzymes as metabolic facilitators, the source and function of cellular energy, cell structure and function, cellular protein transport, cell communication, cell cycle control, apoptosis, and cell differentiation.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 104 Minimum Grade: D or BIO 122 Minimum

Grade: D or TDEC 122 Minimum Grade: D or BIO 117 Minimum Grade:

D or BIO 141 Minimum Grade: D

BIO 215 - Techniques in Cell Biology

A course designed to introduce students to the lab techniques used by cell biologists. Microscopy is used for cell structure and their organelles, phagocytosis, cytoskeletal structure, muscle contraction and cell motility. Other topics include fractional by centrifugation, protein separation and quantification, and gel electrophoresis.

Credits: 2.50

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 104 Minimum Grade: D or BIO 122 Minimum

Grade: D or TDEC 122 Minimum Grade: D or BIO 117 Minimum Grade:

D or BIO 141 Minimum Grade: D

BIO 218 - Principles of Molecular Biology

The course is designed to familiarize students with the details and concepts revolving around molecular biology's central dogma. Specifically the chemical nature of DNA and RNA, the molecular structure of DNA and chromosomes, the definition of a gene, how DNA is replicated, and how genes are expressed and regulated.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 104 Minimum Grade: D or BIO 122 Minimum Grade: D or TDEC 122 Minimum Grade: D or BIO 117 Minimum Grade: D or BIO 141 Minimum Grade: D

BIO 219 - Techniques in Molecular Biology

Designed to familiarize student with laboratory techniques utilized in molecular biology, specifically DNA isolation, characterization, and manipulation. Students work in teams to collect and analyze data and explain results in laboratory reports. Weekly recitations preview and review theory and techniques used in the lab.

Credits: 2.50

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 218 Minimum Grade: D

BIO 221 - Microbiology

Covers morphological, physiological, and biochemical characteristics of bacteria, fungi, algae, protozoa, and viruses. Introduces the principles of microbial genetics, disease, and control of microorganisms.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: BIO 222

Pre-Requisites: BIO 122 Minimum Grade: D or BIO 117 Minimum

Grade: D or BIO 114 Minimum Grade: D

BIO 222 - Microbiology Laboratory

An introduction to microbiological techniques, and culture of prokaryotic and eukaryotic organisms. Includes sterile techniques, and use of specialized microscopic techniques. Classical and molecular techniques of microbial identification are also covered.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: BIO 221

Pre-Requisites: BIO 122 Minimum Grade: D or BIO 117 Minimum

Grade: D or BIO 114 Minimum Grade: D or BIO 123 Minimum Grade: D

BIO 226 - Microbiology for Health Prof'

An introduction to microbiology for students in the health professions. Covers the diversity of microorganisms, their growth and how to control them. An introduction to the principles of disease and pathogenicity, host interaction and immunological response. Laboratories focus on the basic techniques to culture and student microorganisms.

Credits: 5.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

BIO 231 - Cell Physiology

Molecular biology of the cell, including regulation of function, genetic mechanisms, chemistry and structure of cellular components, and cell-to-cell interactions

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 214 Minimum Grade: D

BIO 244 - Genetics I

Surveys Mendelian, microbial, molecular, and population genetics. Discusses model systems and analytical methods used by geneticists to understand gene functions at cellular, organismal, and population levels.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 218 Minimum Grade: D or BIO 206 Minimum Grade: D

BIO 254 - Invertebrate Morph & Phys

Provides comparative study of the major invertebrate groups, relationships between physiology and organismal structure, phylogenetic relationships and classification, development, and life histories.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 123 Minimum Grade: D or BIO 114 Minimum Grade: D or BIO 106 Minimum Grade: D

BIO 255 - Invertebrate Morphology & Physiology Lab

This laboratory course provides a comparative study of the morphology of representative species from the major invertebrate groups. How their structural features relate to their physiology and behavior is emphasized. Identification of species, examining phylogenetic relationships, and understanding life histories will relate organisms to their ecological roles.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 254 Minimum Grade: D

BIO 256 - Vertebrate Morph & Phys

Provides comparative study of the major vertebrate groups, relationships between physiology and organismal structure, evolutionary history, comparative anatomy, and development.

Credits: 5.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (BIO 123 Minimum Grade: D or BIO 114 Minimum Grade: D) and (BIO 121 Minimum Grade: D or BIO 115 Minimum Grade: D)

BIO 260 - Plant Biology I

This course provides an understanding of phylogenetic relationships among plant families. Students see the practical results of evolution by examining and comparing the properties of existing plant families.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 106 Minimum Grade: D or BIO 123 Minimum Grade: D or BIO 114 Minimum Grade: D

BIO 262 - Plant Biology II

In this course, students learn the structure and function of higher vascular plants as organisms. Plant development, growth and behavior are examined at both the molecular and structural levels to give a comprehensive view of the plant and its environment.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 106 Minimum Grade: D or BIO 123 Minimum Grade: D or BIO 114 Minimum Grade: D

BIO 264 - Ethnobotany

This course explores the relation between ancient/cultural botanical knowledge and its current application in modern pharmacology and alternative forms of medicine. It provides an interdisciplinary approach to the study of plants for food, medicine, stimulation, religious rituals and death.

Credits: 3.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

BIO 270 - Development Biology

Covers molecular, cellular and physiological mechanisms underlying development of animals from gametes to adults. Covers the major stages and selected aspects of vertebrate development in importance animal model systems. Particular focus in on the importance of differential gene expression and its regulation in development.

Credits: 3.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: (BIO 214 Minimum Grade: D and BIO 218 Minimum Grade: D) or (BIO 204 Minimum Grade: D and BIO 206 Minimum Grade: D)

BIO 271 - Developmental Biology Laboratory

Includes observations into development processes in a diverse group of organisms including developmental principles in simple multicellular protists, gametogenesis in diverse animal, fertilization in sea urchins, embryonic development of vertebrates, regeneration of planarians, and the role of gene regulation in fruit fly development.

Credits: 2.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: BIO 270 Minimum Grade: D

BIO 287 - Gross Anatomy Lab

This course is to accompany the Gross Anatomy lecture course and complements the students study of human anatomy by allowing the student to hone their dissection skills through dissection of a preserved mammalian specimen.

Credits: 2.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Co-Requisites: BIO 386
Pre-Requisites: BIO 214 Minimum Grade: D and BIO 218 Minimum Grade: D

BIO 306 - Biochemistry Laboratory

Covers biochemical techniques ranging from basic laboratory preparatory work such as making solutions to the measurement of enzyme kinetics and substrate specificity.

Credits: 2.00

College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: CHEM 242 Minimum Grade: D

BIO 310 - Comparative Physiology

Provides comparative study of the physiology of vertebrate and invertebrate animals. Examines physiological principles by studying cardiovascular adaptations, water balance, respiratory adaptations, and other homeostatic mechanisms in model systems, including fish, amphibians, mammals, birds, and invertebrates.

Credits: 3.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: BIO 201 Minimum Grade: D or ENVS 284 Minimum Grade: D or ENVR 284 Minimum Grade: D

BIO 311 - Metabolism

Covers bioenergetics and metabolism; enzymes, substrates, products, coenzymes, transporters, pathways (catabolic and anabolic for carbohydrates, lipids, amino acids, and nucleotides). Intracellular regulation, intercellular regulation, and how all this serves to meet the need of the cell and organism.

Credits: 4.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: CHEM 242 Minimum Grade: D

BIO 312 - Genetically Modified Foods

Covers the application of recombinant DNA techniques in the creation of genetically modified foods. Explores the many uses of these food. Also covers the social, ethical and environmental issues involved in the use of genetically modified foods.

Credits: 2.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: BIO 117 Minimum Grade: D or BIO 122 Minimum Grade: D

BIO 313 - Comparative Physiology Lab

Computational laboratory examining quantitative facets of vertebrate physiology through simulation experiments. Complements BIO 310 Comparative Physiology. Example systems examined include gas and solute exchangers, open vs. closed circulations, and thermoregulatory controllers.

Credits: 2.00

College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: BIO 310 Minimum Grade: D

BIO 320 - Mech Of Microb Pathogenicity

Covers mechanisms of pathogenesis in microbial disease: transmission, prevention, public health. Also covers molecular basis of microbial pathogenesis.

Credits: 3.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: BIO 218 Minimum Grade: D or BIO 206 Minimum Grade: D

BIO 322 - Mycology

Covers morphology, taxonomy, and physiology of yeasts and molds, with emphasis on species of economic importance; plant and animal pathogens; industrial fermentations; toxin production; decomposition of organic materials; and fungal morphogenesis.

Credits: 4.50
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: BIO 221 Minimum Grade: D

BIO 331 - Bioinformatics I

Covers the tools and the applications of computer-aided representation, archiving, accession, manipulation, and analysis of biological data. Bioinformatics I provides an overview of information theory and computer-aided analysis of biomolecules (nucleic acids, proteins and polysaccharides) and its application for computer-aided recombinant DNA research.

Credits: 3.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

BIO 332 - Bioinformatics II

This course continues the application of computational algorithms for manipulation and analysis of biological information covered in BIO 331 (Bioinformatics I). It covers genomic and proteome informatic approaches and applications for determining evolutionary

relationships, discovery of protein structure/function relationships and bioengineering of proteins by molecular modeling by homology
Credits: 3.00

College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: BIO 331 Minimum Grade: D

BIO 333 - Bioinformatics Laboratory

A laboratory course to accompany BIO 331 Bioinformatics I. Designed to familiarize students with the computational tools used to analyze large datasets generated by high throughput biotechnology. Includes algorithms to analyze nucleic acid and protein sequences, 3D molecular structures, phylogenetic trees, and microarray data.

Credits: 2.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: BIO 331 Minimum Grade: D

BIO 346 - Stem Cell Research

This course will focus on recent and important topics relevant to stem cell research and development. Topics will include nuclear reprogramming and epigenetics, environmental influences on stem cell differentiation, stem cells and cancer, stem-cell-based therapies for heart and neurodegenerative disorders, stem cells and ageing, and politics of stem cell research.

Credits: 3.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: BIO 218 Minimum Grade: D

BIO 368 - Embryology

This course surveys general features of developing systems, and focuses on the developmental history of adult structures and functions in humans. Human developmental defects are also discussed.

Credits: 4.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: BIO 214 Minimum Grade: D or BIO 204 Minimum Grade: D

BIO 370 - Teratology

This course will expand on the concepts of developmental biology by examining the agents that interfere with normal development. We will be exploring these agents through presentations and discussion of current peer reviewed literature. The focus will be on an understanding

of mechanisms of action and how they are influenced by dose pharmacology and genetics.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 270 Minimum Grade: D

BIO 384 - Biology of Stress

This course focuses on the biological responses to the physical and psychological stress, discussing in turn stress responses in various organ systems. Emphasis is given to the analysis and evaluation of conflicting biological evidence on stress effects.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Must have the following Classification(s):

Junior

Senior

Pre-Requisites: BIO 104 Minimum Grade: D or BIO 122 Minimum

Grade: D or TDEC 122 Minimum Grade: D or BIO 117 Minimum Grade:

D or BIO 141 Minimum Grade: D or BIO 141 Minimum Grade: D

BIO 386 - Gross Anatomy

This course is to give students an understanding of Human Anatomy in a clinical format. Anatomy will be studied in a regional manner with an emphasis placed on landmarks and relationships of structure within a region.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Co-Requisites: BIO 387

Pre-Requisites: BIO 214 Minimum Grade: D and BIO 218 Minimum

Grade: D

BIO 404 - Structure and Function of Biomolecules

Covers the weak interactions which govern structure and function of biomolecules, including amino acids, proteins (structural organization, isolation, and methods of analysis). Enzymes (structure, catalytic mechanisms, kinetics), lipids and biomembranes, and DNA and RNA folding.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: (BIO 104 Minimum Grade: D or BIO 117 Minimum Grade: D or BIO 122 Minimum Grade: D) and CHEM 242 Minimum Grade: D

BIO 406 - Computational Biochemistry Lab

This course uses kinetic analysis of biochemical data to increase the computational and numerical sophistication used to build sound models of the underlying biological processes. Students start with Excel as the analytical tool. MATLAB is then used as the complexity of the problems demands it.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 303 Minimum Grade: D or BIO 404 Minimum

Grade: D or BIO 311 Minimum Grade: D

BIO 412 - Biology of Aging

Discusses ageing at the organismal, organ, cellular, and molecular levels. Discussions include chronological versus biological aging, normal and abnormal human physiology of aging, current theories of aging, the effect of caloric restriction on aging, and the molecular mechanisms that underlie normal and abnormal aging.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: (BIO 404 Minimum Grade: D or BIO 303 Minimum

Grade: D) or (BIO 218 Minimum Grade: D or BIO 206 Minimum Grade:

D) and BIO 270 Minimum Grade: D

BIO 413 - Genomics

This course aims to elucidate current technologies, theory, and applications of genomic research. Though a large emphasis will be placed on the use of genomic tools to study human health, we will also study the genomes, transcriptomes, and proteomes of bacteria, fungi, plants, and other animals.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 218 Minimum Grade: D

BIO 415 - Proteins

Discusses protein structure, function, and isolation. Emphasizes biochemical, biophysical, and molecular biological techniques.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 404 Minimum Grade: D or BIO 303 Minimum Grade: D

BIO 420 - Virology

Discusses the major viral groups, including biochemistry and molecular genetics of viral replication, structure, gene expression, latency, and role in disease.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 214 Minimum Grade: D or BIO 218 Minimum

Grade: D or BIO 204 Minimum Grade: D or BIO 206 Minimum Grade: D

BIO 421 - Biomembranes

The experimental and theoretical basis for the structure and function of biological membranes will be surveyed. Topics include membrane self assembly, bilayer phase behavior and dynamics, membrane protein structure, passive and active transport, membrane fusion and trafficking.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: BIO 404 Minimum Grade: D or BIO 303 Minimum

Grade: D

BIO 424 - Microbial Physiology

Covers physiology and metabolism of microorganisms with emphasis on aspects unique to prokaryotes, including envelope structure, transport systems, modes of nutrition, biosynthesis, growth, and mechanisms of action of antibiotics.

Credits: 5.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 221 Minimum Grade: D

BIO 426 - Immunology

Covers the fundamental concepts of innate and adaptive immunity, including the molecular and cellular mechanisms that generate responses to a broad spectrum of infectious threats, self-non-self recognition, immune regulation.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 214 Minimum Grade: D and BIO 218 Minimum

Grade: D

BIO 427 - Immunology Lab

Students will gain a more thorough understanding of the complexities of the mammalian immune system and will receive hands on experience with common models used in immunology labs. This course complements the Immunology lecture course (BIO 426).

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 426 Minimum Grade: D

BIO 433 - Advanced Cell Biology

Course covers chemical composition and cellular function of organelles and other cellular structures, intra- and inter- cellular regulatory processes, intercellular communication, genetic mechanisms and analytical techniques.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Graduate Quarter

Undergraduate Quarter

Must be enrolled in one of the following Major(s):

Biological Sciences

Must have the following Classification(s):

Senior

Pre-Requisites: BIO 215 Minimum Grade: D or BIO 214 Minimum

Grade: D or BIO 204 Minimum Grade: D

BIO 434 - Advanced Cell Biology Lab

Course covers fundamentals of growth, division and homeostasis of mammalian cells grown in culture. Students perform experiments on cells to monitor cellular morphology, including subcellular structures and specific regulatory proteins. Techniques include fluorescent microscopy, cell transfection and subcellular fractionation.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Graduate Quarter

Undergraduate Quarter

Must be enrolled in one of the following Major(s):

Biological Sciences

Must have the following Classification(s):

Senior

Pre-Requisites: BIO 433 Minimum Grade: D

BIO 435 - Advanced Immunology

Covers failures in host defense, immunotherapies, clinical concepts in immunology, and emerging concepts in immunology research. Material is presented in a combination of a lecture and journal club format with a focus on a class participation, presentation and discussion.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 426 Minimum Grade: D

BIO 442 - Modeling Methods in Biology I

Offers practical experience in the modeling of simple biological systems, including the applications of linear, trigonometric, and exponential functions in biology and the use of differential and integral calculus, simple differential equations, and the Eulerian approach to simulation. Emphasizes practical computational use of such tools in biological problems. Offered in alternate years.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

BIO 443 - Modeling Methods in Biology II

Offers a practical introduction to the modeling of dynamic biological processes, including deterministic and stochastic processes. Emphasizes the development and construction of working models and the interpretation of results. Discusses both mechanistic and empirical/predictive models. Students develop their own model of a real-world biological process. Offered in alternate years.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 442 Minimum Grade: D

BIO 444 - Human Genetics

Covers the fundamentals and principles of genetics with an emphasis on their relevance to human genetics and disease. Topics include human genetic disorders, pedigree analysis and genetic testing, cytogenetics, epigenetics, genetics of cancer, gene therapy, stem cell research, human genomics and biotechnology.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 218 Minimum Grade: D or BIO 244 Minimum Grade: D or BIO 206 Minimum Grade: D

BIO 445 - Microbial Genetics

Covers genetic organization and regulation in bacteriophage and bacteria, techniques of genetic manipulation of microbial genomes, genetic interactions of microbes under natural conditions and the use of microbial genome modification in industry.

Credits: 5.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 218 Minimum Grade: D or BIO 206 Minimum Grade: D

BIO 447 - Adv Genetics & Molecular Bio

Covers classical prokaryotic and eukaryotic genetics; DNA/RNA structure; DNA replication, transcription, translation and regulation of these processes. Also covers major molecular techniques used for characterizing prokaryotic and eukaryotic genes, tools for analysis of genomes, and applications of molecular genetics research.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Biological Sciences

Must have the following Classification(s):

Junior

Senior

Pre-Requisites: BIO 218 Minimum Grade: D or BIO 206 Minimum Grade: D

BIO 449 - Recombinant DNA Laboratory

Covers procedures of DNA isolation and purification, insertion of DNA sequences into plasmid cloning vectors, introduction of plasmids into appropriate host cells, and methods of recovering and analyzing cloned DNA.

Credits: 5.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 218 Minimum Grade: D or BIO 206 Minimum Grade: D

BIO 451 - Genetic Reg Development

Covers molecular and genetic control of morphogenesis and cellular differentiation. Focuses on differential gene function and the interaction between the nucleus and the cytoplasm.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (BIO 218 Minimum Grade: D or BIO 206 Minimum Grade: D) and BIO 270 Minimum Grade: D

BIO 460 - Evolution

Examines historical evidence for and principal mechanisms of organic evolution, the origin of life and new groups of organisms in the past and present, and the genetic basis for evolution. Discusses current research in evolutionary biology and ecology.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Biological Sciences

Must have the following Classification(s):

Junior

Senior

Pre-Requisites: BIO 218 Minimum Grade: D or BIO 206 Minimum Grade: D

BIO 462 - Biology of Neuron Function

Covers molecular and cellular mechanisms underlying neuron function. Topics include: molecular and cellular biology of neurons and neural development; molecular biology and physiology of sensory and motor neurons; molecular biology of muscle function; molecular and cellular basis of learning and memory in model organisms.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 201 Minimum Grade: D

BIO 463 - Mol Mech of Neurodegeneration

This is an advanced course on the current, primary literature in the area of neurodegeneration. Students are expected to be conversant in areas of Genetics, Cell Biology, Molecular Biology, Biochemistry, and Neurobiology. This is a discussion course based on reading current manuscripts from the primary literature.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 432 Minimum Grade: D

BIO 466 - Endocrinology

Describes the classical hormones, their regulation and major clinical abnormalities. New directions in endocrinology, such as cellular regulation and cellular mediators of hormonal action are also considered. The major focus of the course will be on mammals, although some examples involving other vertebrates are included.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: BIO 122 Minimum Grade: D or BIO 104 Minimum Grade: D or BIO 117 Minimum Grade: D

BIO 471 - Seminar in Biological Sciences

Discusses and evaluates selected current topics in bioscience and biotechnology. Includes presentations by outside speakers.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Biological Sciences

Must have the following Classification(s):

Senior

BIO 472 - Seminar in Biological Science

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Biological Sciences

Must have the following Classification(s):

Senior

Pre-Requisites: BIO 471 Minimum Grade: D

BIO 473 - Seminar in Biological Science

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Biological Sciences

Must have the following Classification(s):

Senior

Pre-Requisites: BIO 472 Minimum Grade: D

BIO 480 - Special Studies Bio Sci

Covers special topics offered in biology. Current offerings include Biotechnology, Biology of Cancer, Ethnobiology, Neurobiology, and Bioinformatics, as well as other selected topics of interest in molecular biology, genetics, and biotechnology.

Credits: 12.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

BIO 497 - Research

Provides guided research in biology, molecular biology, microbiology, cell or human physiology, genetics, biochemistry, or biotechnology.
Credits: .50 to 12.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

BIO 498 - Independent Study

Provides independent study in biology, molecular biology, microbiology, cell or human physiology, genetics, biochemistry, or biotechnology.
Credits: .50 to 12.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

Chemical Engineering Chemistry Courses

CHEC 352 - Physical Chemistry and Applications II

Equilibrium electrochemistry and transport; Covers electrochemical cells, Nernst equation, fuel cells, batteries, electrolytic solutions, transfer processes, Fick's laws, diffusion, ion transport, introduction to simple quantum mechanical systems.
Credits: 4.00
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: (PHYS 211 Minimum Grade: D or PHYS 153 Minimum Grade: D or TDEC 115 Minimum Grade: D) and (CHEM 252 Minimum Grade: D or TDEC 202 Minimum Grade: D)

CHEC 353 - Physical Chemistry and Applications III

Kinetics and spectroscopy; Covers reaction kinetics, steady state approximation, chain reactions and unimolecular reactions, optical spectroscopy; Beer's Law, atomic spectra/simple atomic models, rotational and vibrational spectra, Raman spectra, term symbols and selection rules, lasers, molecular statistics, partition functions.
Credits: 4.00
College: Arts and Sciences
Department: Chemistry
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: (PHYS 211 Minimum Grade: D or PHYS 153 Minimum Grade: D or TDEC 115 Minimum Grade: D) and (CHEM 252 Minimum Grade: D or TDEC 202 Minimum Grade: D)

Chemistry Courses

CHEM 050 - Preparatory Chemistry

This online course covered general chemical principles, such as stoichiometry, atomic and molecular structure, and characterization of chemical reactions.
Credits:
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

CHEM 100 - Chemistry

Chemistry and its significance to industry and life, with discussions revolving around synthesis and use of polymers and biologically significant molecules
Credits: 2.00
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

CHEM 101 - General Chemistry I

Covers fundamental principles of chemistry, stoichiometry, atomic and molecular structure, chemical bonding, states of matter, thermochemistry, and periodicity.
Credits: 3.50
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Co-Requisites: EXAM 080
Pre-Requisites: or CHEM 111 Minimum Grade: D or CHEM 050 Minimum Grade: D

CHEM 102 - General Chemistry II

Covers chemical equilibrium, including acid-base equilibria in solution; electrochemistry; organic chemistry; polymers; and petroleum.
Credits: 4.50
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Co-Requisites: EXAM 080
Pre-Requisites: CHEM 101 Minimum Grade: D or TDEC 120 Minimum Grade: D or CHEM 161 Minimum Grade: D

CHEM 103 - General Chemistry III

Covers organic functional groups, biochemistry, inorganic and coordination compounds, chemical kinetics, thermodynamics, and nuclear chemistry.

Credits: 5.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: EXAM 080

Pre-Requisites: CHEM 102 Minimum Grade: D or TDEC 121 Minimum Grade: D or (CHEM 162 Minimum Grade: D and CHEM 164 Minimum Grade: D)

CHEM 107 - General Chemistry

Introduction to organic chemistry and biochemistry

Credits: 4.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CHEM 108 - Health Chemistry I

Covers physical and chemical properties of substances used in medical areas and related principles: atomic structure, bonding, gases, solutions, acids and bases, oxidation-reduction and the chemistry of hydrocarbon compounds and polymers. Examples are taken from pharmacology, nutrition and other allied health fields.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

CHEM 110 - Environmental Chemistry

Chemistry of the environment; the ecological aspects. Discussion of problems related to the pollution of the atmosphere, natural waters, and soil from a chemist's point of view.

Credits: 2.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CHEM 111 - General Chemistry I

Not open to engineering or science majors. Introduces the principles of general chemistry. Covers SI units, unit factor calculations, states of matter, elements and compounds, energy, atoms, electronic configurations, ionic and covalent bonds, Lewis dot structures, shapes of molecules, chemical equations, stoichiometry, molarity, gas laws, nuclear chemistry, equilibrium between different states of matter, and some colligative properties of solutions.

Credits: 4.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not be enrolled in one of the following College(s)/School(s):

Arts and Sciences

CHEM 112 - General Chemistry II

Introduces organic chemistry. Covers some classes of organic compounds from alkanes to amines, basic reactions of important functional groups, uses of some compounds, stereochemistry, synthetic and natural polymers (carbohydrates, protein, DNA), and briefly acids and bases.

Credits: 4.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 111 Minimum Grade: D

CHEM 113 - General Chemistry I Laboratory

Covers chemical and physical properties and techniques for inorganic, organic, and polymeric compounds, including distillation, crystallization, chromatography, separation.

Credits: 1.50

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not be enrolled in one of the following College(s)/School(s):

Arts and Sciences

College of Engineering

Co-Requisites: CHEM 111

CHEM 114 - General Chem II Lab

Continuation of CHEM 113

Credits: 1.50

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not be enrolled in one of the following College(s)/School(s):

Arts and Sciences

College of Engineering

Co-Requisites: CHEM 112

CHEM 151 - Applied Chemistry

For business majors. Covers physical and chemical properties of substances used in consumer products. Provides qualitative introduction to required principles, including atomic structure and the elements, bonding and compounds, and the chemistry of carbon compounds and polymers. Uses examples from the areas of food and nutrition, pharmacology, and the petrochemical industry.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
May not be enrolled in one of the following College(s)/School(s):
Arts and Sciences
College of Engineering
Co-Requisites: EXAM 080

CHEM 161 - General Chemistry I

Covers atomic structure, stoichiometry, gases, valence theory, and thermochemistry.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 003 Minimum Grade: D or (MATH 001 Minimum Grade: D and MATH 002 Minimum Grade: D)

CHEM 162 - General Chemistry II

Covers solutions, colligative properties, chemical equilibrium, and electrochemistry. Introduces organic chemistry.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 161 Minimum Grade: D or CHEM 101 Minimum Grade: D or TDEC 120 Minimum Grade: D

CHEM 163 - General Chemistry III

Continues organic chemistry. Introduces thermodynamics, molecular biology, inorganic chemistry, chemical kinetics, and nuclear chemistry.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 164 Minimum Grade: D and CHEM 162 Minimum Grade: D

CHEM 164 - General Chemistry Laboratory I

Involves experiments demonstrating the principles of gas behavior, thermochemistry, colligative properties, chemical equilibrium, and electrochemistry.

Credits: 2.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Pre-Requisites: CHEM 162 Minimum Grade: D

CHEM 165 - General Chem Lab II

Involves experiments illustrating the principles of organic separations, transition metal chemistry, complex ions, chemical kinetics, and qualitative analysis.

Credits: 2.50

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 163 Minimum Grade: D

CHEM 166 - Introductory Chemistry I

Introduces the principles and applications of chemical science, including atomic theory; chemical calculations; gases; and inorganic, nuclear, and environmental chemistry. Designed especially for students majoring in humanities; business and administration; and hotel, restaurant, and institutional management.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CHEM 201 - Why Things Work: Everyday Chemistry

Course will cover chemical explanations of everyday materials and phenomena. The focus will be conceptual understanding, as opposed to a detailed quantitative treatment.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CHEM 230 - Quantitative Analysis

Covers chemical analysis and data treatment, including chemical equilibrium, acid-base and redox reactions, and applications to gravimetric and titrimetric methods.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 102 Minimum Grade: D or TDEC 121 Minimum Grade: D or (CHEM 162 Minimum Grade: D and CHEM 164 Minimum Grade: D)

CHEM 231 - Quantitative Analysis Laboratory

Provides laboratory studies in quantitative analysis. This is a writing intensive course.

Credits: 2.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 230 Minimum Grade: D

CHEM 241 - Organic Chemistry I

Covers structure, reactions, and stereochemistry of organic compounds, especially alkanes, cycloalkanes, haloalkanes, and alkenes. Also covers SN1, SN2, E1, and E2 compound.

Credits: 4.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 102 Minimum Grade: D or TDEC 121 Minimum

Grade: D or (CHEM 162 Minimum Grade: D and CHEM 164 Minimum

Grade: D)

CHEM 242 - Organic Chemistry II

Covers structure, reactivity, and stereochemistry of organic compounds, especially alkanes, alkynes, alcohols, ethers, dienes, and aromatic compounds. IR, MS, and NMR spectral techniques are introduced and applied to the identification of organic compounds.

Credits: 4.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 241 Minimum Grade: D

CHEM 243 - Organic Chemistry III

Covers structure, preparation, reactivity, and stereochemistry of organic compounds, especially substituted aromatics, aldehydes, ketones, carboxylic acids, carboxylic acid halides, anhydrides, amides, polypeptides, esters, amines, phenols, and carbohydrates.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 242 Minimum Grade: D

CHEM 244 - Organic Chemistry Laboratory I

Introduces simple recrystallization, distillation, extraction, and chromatography techniques and applies them to several organic reactions illustrative of topics covered in CHEM 241. Provides opportunity to take and interpret IR and GC spectra.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 241 Minimum Grade: D

CHEM 245 - Organic Chem Lab II

Provides experiments illustrating a number of organic reactions covered in CHEM 242 as well as more advanced organic techniques. Provides opportunity to take and interpret IR and GC scans.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 242 Minimum Grade: D and CHEM 244 Minimum

Grade: D

CHEM 247 - Organic Chemistry Laboratory

Covers synthesis of typical organic compounds illustrative of the usual techniques in organic preparation. Spring.

Credits: 1.50

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Chemical Engineering

Pre-Requisites: CHEM 241 Minimum Grade: D

CHEM 252 - Physical Chemistry I

Thermochemistry; Covers gas properties, gas laws, equations of state, first, second and third laws of thermodynamics, energy and entropy, phase stability and phase transitions, phase diagrams.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: (CHEM 102 Minimum Grade: D and MATH 123

Minimum Grade: D) or TDEC 121 Minimum Grade: D or (CHEM 162

Minimum Grade: D and CHEM 164 Minimum Grade: D)

CHEM 256 - Physical Chemistry for Biological Sciences

Covers elementary chemical thermodynamics and homogeneous reaction kinetics as bases for experiment and phenomenology in biology and biochemistry, including properties of molecules in solution.

Credits: 4.50

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 101 Minimum Grade: D or CHEM 161 Minimum

Grade: D or TDEC 120 Minimum Grade: D

CHEM 261 - Org Chem Lab I-A

Introduces synthetic techniques and qualitative organic analysis. Fall.

Credits: 2.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 241 Minimum Grade: D

CHEM 262 - Organic Chem Lab II-A

Covers synthesis and reactions of polyfunctional compounds. Winter.

Credits: 2.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 242 Minimum Grade: D and CHEM 261 Minimum Grade: D

CHEM 263 - Org Chem Lab III-A

Covers synthesis and reactions of aliphatic and aromatic compounds.

Includes use of instrumental methods in product identification. Spring.

Credits: 2.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 242 Minimum Grade: D and CHEM 262 Minimum Grade: D

CHEM 346 - Qualitative Organic Chemistry

Covers identification of pure organic compounds, physical constants, solubilities by semi-micro techniques, infrared and nuclear magnetic resonance spectroscopy, and separation and identification of mixtures.

Credits: 5.50

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: CHEM 243 Minimum Grade: D and CHEM 245 Minimum Grade: D

CHEM 354 - Physical Chemistry IV

Covers crystal structures, x-ray crystallography, lasers, modern aspects of spectroscopy, computational chemistry, and surface chemistry.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: CHEC 353 Minimum Grade: D

CHEM 355 - Physical Chemistry IV

Computational methods of modeling molecules; Covers potential energy functions and surfaces, molecular conformations, failures of classical physics, the quantum hypothesis, the classical wave equation and the origins of the Schrodinger equation, particle-in-a-box, linear variation functions, molecular orbitals from linear combinations of

atomic orbitals, Pauli principle, molecular calculations and their interpretation.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: CHEC 353 Minimum Grade: D

CHEM 356 - Physical Chemistry Lab

Provides experiments in physical chemistry for engineering students.

Credits: 2.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHEM 241 Minimum Grade: D and TDEC 121 Minimum Grade: D

CHEM 357 - Physical Chemistry Lab I

Provides experiments illustrative of topics included in CHEM 251 and CHEC 352. This is a writing intensive course.

Credits: 2.50

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Co-Requisites: CHEC 352

Pre-Requisites: (CHEM 251 Minimum Grade: D and PHYS 211 Minimum Grade: D) or CHEC 352 Minimum Grade: D

CHEM 358 - Physical Chemistry Lab II

Continues CHEM 357.

Credits: 2.50

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: CHEM 252 Minimum Grade: D or CHEC 352 Minimum Grade: D

CHEM 361 - Adv Organic Chem Lab

Emphasizes experimental design, data collection, and interpretation in such areas as reaction mechanism and molecular structure determination. Not offered every year.

Credits: 2.50

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: CHEM 243 Minimum Grade: D

CHEM 362 - Polymer Chemistry

Covers physicochemical aspects of polymer chemistry, including molecular weight determination, kinetics of addition and condensation polymerization, copolymerization, rheology and morphology, and thermodynamic treatments. Fall. Not offered every year.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: CHEM 163 Minimum Grade: D

CHEM 363 - Polymer Chemistry Laboratory

Covers general techniques of polymer science, including synthesis, fractionation, molar mass determination, analytical techniques, and physical properties. Not offered every year.

Credits: 2.50

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: CHEM 243 Minimum Grade: D

CHEM 364 - Spectroscopic Analysis

Covers interpretation of spectra for the determination of structure of organic molecules. Stresses use of infrared, nuclear magnetic resonance, and mass spectrometry. Fall. Not offered every year.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: CHEM 243 Minimum Grade: D

CHEM 367 - Chemical Information Retrieval

This course examines methods for retrieving literature information, via standard tabulations, journals, and abstracts, using both hard-copy and electronic sources. Includes techniques for online searching of databases such as Chemical Abstracts, Beilstein, and crystallographic depositories.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

CHEM 420 - Molecular Symmetry and Group Theory-Chemistry

Applies the principles of simple group theory to molecular structure and to electronic and motional properties of molecules, including crystal field and molecular orbital methods.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: CHEM 421 Minimum Grade: D

CHEM 421 - Inorganic Chemistry I

Covers crystal, atomic, and molecular structure; modern chemical bonding; and magnetic properties of inorganic systems.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: CHEM 251 Minimum Grade: D or TDEC 202 Minimum Grade: D

CHEM 422 - Inorganic Chemistry II

Covers organometallic and coordination compounds, substitution mechanisms, and bio-inorganic chemistry.

Credits: 3.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: CHEM 420 Minimum Grade: D

CHEM 424 - Special Chemistry Problems

Allows theoretical and laboratory investigations of a particular problem of interest to the individual student. A written report may be required.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

CHEM 425 - Inorganic Chemistry Lab

Covers synthesis of properties of inorganic compounds, magnetic measurements, spectroscopic properties, and interpretations of complex ion structure.

Credits: 4.00
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: CHEM 422 Minimum Grade: D

CHEM 430 - Analytical Chemistry I

Provides an introduction to statistics (particularly the development and use of analytic calibration curves), basic electronics, and the principles of spectroscopic methods of analysis, including the interaction of light with matter and basic instrument design.

Credits: 3.00
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: CHEM 242 Minimum Grade: D and CHEM 352 Minimum Grade: D

CHEM 431 - Analytical Chemistry II

Continues CHEM 430. Covers principles of chromatographic methods of analysis. Lab includes experiments on atomic absorption, fluorescence, infrared absorption, UV/visible absorption, gas chromatography, high performance liquid chromatography, basic electronics, and potentiometry/coulometry. This is a writing intensive course.

Credits: 4.00
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: CHEM 430 Minimum Grade: D or TDEC 202 Minimum Grade: D

CHEM 465 - Synthetic Polymer Chemistry

Explores scope of polymer science; structure-property relations; step, free radical, cationic, group-transfer, metathesis, coordination, and ring-opening polymerizations; and stereochemistry of polymerizations and reactions of polymers.

Credits: 3.00
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: CHEM 242 Minimum Grade: D

CHEM 466 - Physical Chemistry of Polymers

Covers kinetics and thermodynamics of polymerizations; control of polymerization processes; gelation theory; copolymerization; and determination of polymer molecular weight and distribution by membrane osmometry, light-scattering, solution viscosity, and other techniques.

Credits: 3.00
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: CHEM 242 Minimum Grade: D and CHEM 251 Minimum Grade: D

CHEM 467 - Polymer Chemistry III

Covers spectroscopy of polymers; rubber elasticity; morphology; viscoelasticity; thermal analysis; computational methods; testing, fabrication, and processing; and magnetic and mechanical properties of polymers.

Credits: 3.00
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: CHEM 352 Minimum Grade: D or TDEC 202 Minimum Grade: D

CHEM 480 - Special Topics in CHEM

This course covers a selected special topic in chemistry. May be repeated three times for credit.

Credits: 5.00
College: Arts and Sciences
Department: Chemistry
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

CHEM 493 - Senior Research Project

Provides individualized research with a faculty member in any number of chemical disciplines. Requires written report. May be repeated three times for credit.

Credits: .50 to 12.00
College: Arts and Sciences
Department: Chemistry
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Must be enrolled in one of the following Major(s):
Chemistry
Must have the following Classification(s):
Junior
Senior

CHEM 497 - Research

Covers research problems in several areas of chemistry. Requires written report.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Chemistry

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Chemistry

Chinese Courses

CHIN 101 - Chinese I

Introductory Mandarin Chinese. Includes listening, speaking, and reading, with individual audiolingual practice. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CHIN 102 - Chinese II

Continues CHIN 101. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 101 Minimum Grade: D

CHIN 103 - Chinese III

Continues CHIN 102. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 102 Minimum Grade: D

CHIN 201 - Chinese IV

Intermediate Chinese. Includes listening, speaking, reading, and writing, with individual audiolingual practice. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 103 Minimum Grade: D

CHIN 202 - Chinese V

Continues CHIN 201. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 201 Minimum Grade: D

CHIN 203 - Chinese VI: Convers & Comp

Provides intensive practice in comprehension and written and oral communication. Emphasizes development of writing skills and increased oral competence in everyday situations. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 202 Minimum Grade: D

CHIN 301 - Chinese VII

Advanced Chinese. Includes reading, writing, and extensive conversational practice. Offered as needed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 203 Minimum Grade: D

CHIN 302 - Chinese VIII

Continues CHIN 301. Covers techniques of translation and communication. Provides advanced practice in translation, comprehension, and written and oral communication. Offered as needed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 301 Minimum Grade: D

CHIN 303 - Chinese IX

Continues CHIN 302. Offered as needed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 302 Minimum Grade: D

CHIN 399 - Adv Independ Stud Chinese

Provides supervised study of special subjects in Chinese language and literature. Scheduled as needed.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 303 Minimum Grade: D

CHIN 411 - Intro Chinese Stylistics

Fourth year of Chinese. Provides advanced practice in translation, comprehension, and written and oral communication. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 303 Minimum Grade: D

CHIN 431 - Intro Chinese Literature

Provides intensive reading, writing, and conversational practice in Chinese, based on selected texts in Chinese literature. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 303 Minimum Grade: D

CHIN 451 - Intro Bus & Prof Chinese

Fourth year of Chinese. Provides intensive oral practice and written work in business, professional, and commercial Chinese. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CHIN 303 Minimum Grade: D

CHIN 480 - Chinese Minor Thesis Course

Independent research study on a topic selected by the student. Independent study is supervised by a faculty member and guided by a plan of study. At the end of the course, the student is required to produce a paper and oral defense on the topic of his paper.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Communication Courses

COM 101 - Human Communication

This course explores the elements of basic human communication - what does it mean to communicate? What makes communication good

or bad? What is the nature of verbal and non-verbal messages? What does it mean to communicate in a group? How does culture affect communication?

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

COM 111 - Principles of Communication

Explores the importance of communication in organizational settings.

Includes assessment of appropriate modes of communication, including written, spoken, and electronic.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

COM 150 - Mass Media and Society

Provides an overview of the history, economic structure, regulation, and impact of the mass media in the United States.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

COM 210 - Theory and Models of Communication

Surveys historical and contemporary attempts to understand the process of human communication, using examples from the literature of interpersonal, group, organizational, and mass communication.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

COM 220 - Qualitative Research Methods

This course provides a detailed investigation of the nature, application, analysis and write up of qualitative research in communication and the social sciences, including such topics as ethnography, in-depth interviews, focus groups, participant observation, and narrative analysis.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

COM 230 - Techniques of Speaking

A workshop course in improving public speaking skills. Provides experience in speeches of explanation, persuasion, and argument.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Pre-Requisites: HUM 102 Minimum Grade: D or HUM 105 Minimum

Grade: D or HUM 107 Minimum Grade: D or ENGL 102 Minimum

Grade: D or ENGL 105 Minimum Grade: D

COM 240 - New Technologies In Communication

Provides an overview and survey of the changes taking place in the technologies of information production, distribution, storage, and display, including the interaction of these changes with legal, social, cultural, and communications systems.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

COM 260 - Fundamentals of Journalism

A workshop course in news reporting. Covers interviewing, editing, and writing for the mass media and for business, industrial, and trade publications. Explores the history of the field and changes in journalistic practices. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Pre-Requisites: HUM 102 Minimum Grade: D or HUM 105 Minimum

Grade: D or HUM 107 Minimum Grade: D or ENGL 102 Minimum

Grade: D or ENGL 105 Minimum Grade: D

COM 270 - Business Communication

Covers the writing of business letters, resumes, memos, proposals, and reports. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

COM 280 - Public Relations

The course focuses on the principles of public relations. It introduces students to theory and practice of PR taught in the context of real life material and situations. The course also covers main public relations techniques, tools, and types of publics.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Pre-Requisites: HUM 102 Minimum Grade: D or HUM 105 Minimum

Grade: D or HUM 107 Minimum Grade: D or ENGL 102 Minimum

Grade: D or ENGL 105 Minimum Grade: D

COM 281 - Advanced Public Relations

This course will focus on advanced aspects of public relations: how to analyze, plan, and conduct public relations campaigns systematically and scientifically. A great deal of attention will be paid to the analysis of real life public relations cases. At the end of the course students create full-scale PR plans, including budget and media material.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: COM 280 Minimum Grade: D

COM 282 - Public Relations Writing

Students will develop the professional level writing skills expected of public relations practitioners. The objectives for this course include building an understanding of PR writing styles and genres as a persuasive influence and learning how to use basic information in different PR formats. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: COM 280 Minimum Grade: D

COM 290 - Sports and the Mass Media

To explore the interrelationships between professional and college sports and the mass media. Students will look at how news media coverage has changes sports, the conventions found in sports journalism, promotion and marketing of sports teams and leagues, and how sponsorship of sporting events changes the nature of these events.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
May not have the following Classification(s):
Freshman
Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 107 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

COM 300 - On-line Journalism

Students will explore how to use computers and the internet to add depth and context to news stories. Students will conduct database searches and analyses, and access a wide variety of records from governmental agencies, all in the pursuit of two news stories. The impact of journalism of blogging will also be studied; students will develop and maintain their own news blogs.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Pre-Requisites: COM 260 Minimum Grade: D

COM 305 - Sports Journalism

To gain a deeper appreciation for and understanding of the meaning-making power of sports journalism. We will explore the history of sports journalism, review and critique examples of historically significant sports writing and write game stories and columns based on actual coverage of local and on-campus sporting events.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: COM 260 Minimum Grade: D

COM 310 - Technical Communication

Develops skills in communicating technical information. Focuses on writing letters, resumes, proposals, reports, and instructions. Offers extensive writing practice along with exercises and presentations. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

COM 311 - Dynamics of Interpersonal Com

This course provides the student with a more thorough understanding of the communication dynamics between individuals. By reviewing scholarly writing on the subject and performing direct observations and analyses, students will acquire an appreciation of the complexities of interpersonal communication and enhanced communication skills.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: COM 210 Minimum Grade: D

COM 315 - Advanced Journalism

Mastery of investigative reporting tactics and strategies enables student to explore and write about issues of great importance to the community.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: COM 260 Minimum Grade: D

COM 316 - Campaigns for Health & Envrmnt

This seminar-style course explores theories and practical aspects of environmental and health campaigns and community-based social marketing campaigns. This course has a strong applied component.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

COM 317 - Environmental Communication

This reading and writing intensive course will explore communication about environmental issues. Topics can include advocacy campaigns, social marketing, environmental journalism, media coverage of environmental issues, green marketing, the environment in popular culture, risk communication, and public participation.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must have the following Classification(s):

Junior

Senior

COM 320 - Science Writing

A workshop course in writing on scientific subjects. Includes analysis of the current market for science writing; examination of exemplary pieces of science writing; instruction in finding article ideas, interviewing, and working with editors; and production of feature-length articles. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
May not have the following Classification(s):
Freshman
Sophomore
Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

COM 325 - The Cultural Significance of Fame

We will explore why fame is so important to us. Why do so many of us want it so badly? Why do we envy those who have it? What does the pursuit of fame say about us and about society? You will explore your own perception of fame, dissect your fame-related experiences, and analyze how the mass media keep us thinking and talking about fame.

Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: COM 150 Minimum Grade: D

COM 330 - Professional Presentations

A workshop course in the theory and practice of making effective professional presentations for the technical and business professional. Provides a systems approach to the planning, production, and presentation of visual/aural programs.

Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: COM 230 Minimum Grade: D

COM 335 - Writing for the World Wide Web

Electronic Publishing gives students applied and theoretical knowledge of professional electronic publishing. Students will focus on issues relating to writing and integrating text and graphics to create websites and on-line publications. Students will also consider how issues in document design and usability can be used to evaluate websites.

Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: D or HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: D or HUM 108 Minimum Grade: D

COM 340 - Desktop Publishing

Covers production of publications using desktop publishing software, including planning, writing, designing, and budgeting of institutional

magazines, newsletters, manuals, and brochures. Requires students to design several pieces (letterheads and flyers).

Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
May not have the following Classification(s):
Freshman
Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

COM 342 - English Worldwide

This course provides an overview of the spread of English globally, by examining English as a language of trade, diplomacy, and education, as well as its status as an aesthetic and market force. For a final project, students research how English is utilized for social, economic, and political purposes in a single area of the world.

Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
May not have the following Classification(s):
Freshman
Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

COM 345 - Intercultural Communication

This course introduces students to the theory and practice of intercultural communication. Drawing from traditions in anthropology and communication, intercultural communication is the study of the effect of differing cultural norms and beliefs upon communication between speakers. Through a wide range of readings, journal writing assignments, and participative and experiential activities, students will develop both their understanding of and skills in inter-cultural communication. A final project and presentation draws together participative experiences and the readings and class discussions.

Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Sophomore

COM 350 - Message Design and Evaluation

Introduces the principles and practice of designing messages and measuring their effectiveness with audiences. This is a writing intensive course.

Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must have the following Classification(s):

Junior

Senior

COM 355 - Ethnography of Communication

Examines theories and methods of qualitative language and communication studies. Topics include story telling, greetings, gossip, self-presentation in talk, language of ritual and religion, men and women's roles in communication, and communicative events and competence. Case student in literature will be analyzed and will form a basis for the students' own ethnographic fieldwork.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

COM 360 - International Communication

Examines the political, cultural, technological, and economic processes and effects of international communication flow.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

Sophomore

COM 361 - International Public Relations

The course is designed give students a comprehensive overview of international issues in PR including such areas as: history and evolution of the field of international PR; image-formation and image-changes process; PR in war and conflict; as well as effect of different political and legal systems on the field of public relations.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

COM 362 - International Negotiations

This course is designed to give students a comprehensive overview of the field including different theoretical points of view on the process of

international negotiations; the role of perceptions in this process; the role of internal politics and cultural variables in the process of international negotiations.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Must have the following Classification(s):

Junior

Pre-Junior

Senior

COM 363 - Event Planning

This course will provide the student with the theoretical and practical fundamentals in understanding the complexities of producing Special Events across all major industries. Special Events addresses all elements of the communication process.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

COM 365 - Journalists, the Courts, and the Law

Students explore and apply techniques for covering the court system, and explore case law and recent key legal developments that have reshaped how journalists do their jobs.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: COM 260 Minimum Grade: D

COM 370 - Advanced Business Writing

Covers application of policy manuals and research, analytic, design, and critical skills to produce corporate documents, such as proposals and reports. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: COM 270 Minimum Grade: D

COM 375 - Grant Writing

Students explore the grant writing process, from the development of an idea and researching appropriate contributors, to writing a fully realized grant proposal, complete with budget. Course topics also include surveying the political and social climate before developing an idea, assessing an organization's capabilities to handle a project, and

performing through literature reviews. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

Pre-Requisites: COM 270 Minimum Grade: D or COM 310 Minimum Grade: D or SOC 260 Minimum Grade: D

COM 380 - Special Topics in Communication Theory

Provides advanced communication studies covering various subjects in interpersonal, group, organizational, and mass communication. May be taken for credit twice.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

COM 385 - Media Effects

Some people believe that the mass media rule our lives, making us fat, violent, sexist, etc. Some think that media are irrelevant. Of course these arguments are extreme and simplifications. In this course, we ask: What are the facts regarding media effects research?

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

COM 390 - Global Journalism

Explores the issues facing journalists covering foreign affairs. Students will research and write news stories on issues of global import and will examine the work of foreign correspondents from historical and critical perspectives. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: COM 260 Minimum Grade: D

COM 399 - Independent Project

Provides a course of independent study on a project for one term only.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

COM 400 - Seminar in Communication

This is an upper-level seminar in various topics in Communication, including but not limited to Rhetoric. Students will undertake an in-depth examination of critical texts or themes in Communication. The course is intended for upper-level majors in Communication and can be repeated for credit with a different topic.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Junior

Sophomore

Pre-Requisites: COM 210 Minimum Grade: D

COM 410 - Advanced Technical Writing

Continues COM 310. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must have the following Classification(s):

Junior

Senior

Pre-Requisites: COM 310 Minimum Grade: D

COM 420 - Technical Editing

Introduces the theory and practice of technical editing, including project and copy editing.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Must have the following Classification(s):

Junior

Senior

Pre-Requisites: COM 270 Minimum Grade: D or COM 310 Minimum

Grade: D or COM 375 Minimum Grade: D or COM 410 Minimum Grade: D

COM 491 - Senior Project in Communication I

Covers planning and execution of a professional project that integrates the academic and practical knowledge the student has acquired in his or her major.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Must be enrolled in one of the following Major(s):

Communication

Must have the following Classification(s):

Senior

Pre-Requisites: COM 210 Minimum Grade: D and (COM 220 Minimum Grade: D or SOC 250 Minimum Grade: D)

COM 492 - Senior Project in Communication II

Requires completion and evaluation of the project begun in COM 491.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Must be enrolled in one of the following Major(s):

Communication

Must have the following Classification(s):

Senior

Pre-Requisites: COM 491 Minimum Grade: D

Criminal Justice Courses

CJ 204 - Criminology

Criminology is the scientific study of crime, criminal behavior and societal responses to crime and to crime victims. Students will study theories of crime causation, crime types, ethics of research, data collection and methods of crime prevention and control. Issues such as capital punishment, gun control and restorative justice will be debated.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 206 - Criminal Justice

Criminal Justice is the study of the agencies that apprehend, adjudicate, sanction, and treat criminal offenders. Students will study the history, policies, procedures and issues regarding these agencies. Court and prison visits will give students an opportunity to augment academic knowledge with direct observation.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 265 - Criminal Investigation

The initial crime scene investigation can make or break subsequent crime solving and conviction of offenders. What does one look for? Who has responsibility for the collection of evidence and the resulting chain of custody? Who has authority in cases that involve several states and federal law enforcement?

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

CJ 266 - Crime Prevention Planning

This course examines the current literature on effective crime prevention programming and planning. Students will be expected to be able to analyze physical and social risk factors for criminal events. Students will also explore methodologies for strategic planning and will use this knowledge to develop a crime prevention plan for the campus or a community.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 267 - Introduction to Security Studies

This course will explore the historical evolution of private security, public policy issues related to privatization of criminal justice systems, legal issues of security and analytic models for security vulnerability assessments. A final project will include an analytically and theoretically sound security assessment of a building or a facility.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 273 - Surveillance, Technology and the Law

This course will examine current surveillance technologies used by criminal justice agencies and private sector organizations and the laws that regulate government surveillance and protect privacy.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 274 - Sex, Violence & Crime on the Internet

This course explores how offenders are adopting computers to commit traditional crimes in a hi-tech manner. Specific attention will be paid to how the Internet has affected the structure of hate groups and the child pornography and sexual predator subcultures. Cyber-stalking and online harassment will also be examined.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

CJ 275 - Issues in Domestic Violence

Domestic Violence is a major public health problem. This course will describe DV in the context of multiple response systems including health care, police, advocacy, and criminal justice. We will explore how DV affects men, women and children and examine societal conditions that allow DV to occur and continue.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

CJ 276 - Introduction to Computer Crime

This course provides an overview of computer crime. Emphasis will be placed on the legislative responses and policy issues related to computer intrusions and cyber-fraud. Issues encountered when enforcing laws in cyberspace and the public/private sector initiatives for dealing with computer crime will also be explored.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

CJ 277 - Introduction to Correctional Practices

This course will provide insight into corrections through theory, laws and contemporary practices, facilities management, reentry and alternatives to incarceration. Corrections involve the 'treatment and rehabilitation of offenders through a program involving penal custody, parole, and probation' (Merriam-Webster). This course will include site visits, guest lecturers and case analysis.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

CJ 278 - Introduction to Law Enforcement

Law enforcement, generally the first point of contact, is the largest of the three Criminal Justice agencies. A solid understanding of the missions, strategies and controversies of policing is essential to citizens and Criminal Justice students. The reality is more complicated than preventing crimes and catching criminals.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

CJ 279 - Bio Terrorism

An examination of chemical and biological terrorism issues and the science, politics and regulation related to terrorism. Case studies of

terrorism from legal, scientific, sociological, crime scene investigation perspectives and how to analyze, evaluate and effectively prevent future terrorism.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

CJ 280 - Communities and Crime

This course is an examination of classical and contemporary theories of the social ecology of communities and how this social ecology relates to crime. Further, we will explore the impact of community development activities on crime outcomes in neighborhoods. We will examine the importance of race and class in forging effective community based development models. Lastly, we will examine specific community based solutions to crime and disorder problems.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 289 - Terrorism

This course will view terrorism from a historical perspective. Various forms of governments and social constructs will be scrutinized as to their impact on human rights issues. Students will study the causes and consequences of domestic and international terrorist activity and discuss the delicate balance between security and freedom.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 360 - Juvenile Justice

Students will learn about the history, development and current status of the juvenile justice system. Philosophical, sociological, psychological, legal and political factors contributing to the changes in the manner in which society processes children and youth who violate social norms will be explored in research articles, legal decision, and theoretical analyses.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 364 - Community Corrections

Costly, unnecessary and impractical incarceration of every offender emphasizes the importance of community-based alternatives which are more effective and less expensive. Course includes field trips, guest experts, and discussion.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

CJ 365 - Computer Investigation and the Law

This course will examine the techniques used to investigate internet crimes and extract evidence from digital storage devices. Specific attention will be paid to the procedural laws that govern digital forensic techniques and investigations involving electronic evidence.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

Pre-Requisites: CJ 274 Minimum Grade: D or CJ 276 Minimum Grade: D

CJ 372 - Death Penalty - An American Dilemma

Capital Punishment is a complex and controversial issue. Opinions about the death penalty are rarely grounded in hard evidence. This course will examine the history of the use of capital punishment in America: the case law and the issues which rise from the use of the Ultimate Sanction.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

CJ 373 - Environmental Crimes

An examination of the criminal consequences of the violation of laws, regulations and policies governing clean water, air and toxic substances. Analysis of case studies from a variety of perspectives including crime scene investigations and potential terrorism.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

CJ 374 - Restorative Justice

Restorative justice is a paradigm shift in criminal justice in response to the failure of the traditional retributive model to meet the needs of victims, offenders and the community. Programs have developed worldwide often sponsored by governments, others by non-profits, to handle both juvenile and adult criminal offences more effectively.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: CJ 206 Minimum Grade: D

CJ 375 - Criminal Procedure

Understanding the historical and contemporary significance of the Bill of Rights especially the 4th, 5th, and 6th amendments is critically important in the practice of law and law enforcement. Real life conflicts in the application of constitutional criminal procedure and tensions between due process and crime control will be discussed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

Pre-Requisites: CJ 206 Minimum Grade: D

CJ 376 - Sentencing: The History, Necessity and Morality of Punishment in America

The course is an exploration of punishment, its various philosophies, theories and approaches. The costs and outcomes of incarceration as well as alternatives will be examined as well as disparities regarding age, gender, race in our sentencing. A review of the ultimate sanction, the death penalty will complete the course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: SOC 206 Minimum Grade: D

CJ 377 - Intellectual Property Theft in the Digital Age

This seminar focuses on the changing nature of intellectual property theft in the Digital Age. Attention will be paid to legislative solutions for protecting intellectual property and the challenges faced when investigating the theft of intellectual property. Additionally, theoretical explanations to account for intellectual property theft will be explored.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

CJ 378 - Science of Forensic Science

Students will study actual casework to learn how to apply scientific method to evidence analysis and translation of results to criminal court hearings and trials. In this ONLINE course students will play the virtual role of analyst, gathering crime scene evidence and presenting it at trial.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 102 Minimum Grade: D or CHEM 101 Minimum Grade: D or BIO 151 Minimum Grade: D or CHEM 151 Minimum Grade: D or CHEM 111 Minimum Grade: D

CJ 379 - Forensic DNA Analysis

An introduction to DNA analysis methods in current forensic testing. Genetics, inheritance, DNA biochemistry are applied to a fluorescent detection technology to produce results using one or more manufactured DNA testing kits. Students will be exposed to actual casework data and as virtual analyst present results to juries and judges.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: BIO 104 Minimum Grade: D or CHEM 102 Minimum Grade: D or CHEM 112 Minimum Grade: D

CJ 380 - Special Topics

This course will explore current issues and interests in Criminal Justice. The topic will vary each term

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 381 - Legal Research & Writing I

Course provides instruction fundamentals of legal research and writing. Legal databases and law resources will be used. Students will learn legal writing styles to produce professionally acceptable documents.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 382 - Legal Research & Writing II

This course builds on the fundamentals of Legal Research & Writing I. Students will use databases and other resources. Advanced skills in legal writing styles will be developed. Professionally acceptable documents will be produced.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: CJ 381 Minimum Grade: D

CJ 390 - Internships in Criminal Justice

Internships provide opportunities for students to clarify career interests; synthesize prior academic knowledge with direct experience; and sharpen critical thinking, analytical, and observational skills. Direct

participation in the criminal justice system allow for testing theory with practice. Learning from and networking with professionals in the field is enhanced.

Credits: 3.00 to 6.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 399 - Independent Study

Provides a course of independent study in Criminal Justice. Topics for study must be approved in advance of registration by the advisor and the instructor involved.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

CJ 400 - Critical Issues in Criminal Justice

The capstone course will be open only to Criminal Justice Seniors. It will serve as an opportunity for them to demonstrate their cumulative learning to the major by looking on the most challenging issues in the field. Students, divided into groups, will research the topics, draft a report and present and defend it before an audience of Criminal Justice students. The knowledge and skills obtained through four years as a Criminal Justice major will be reflected in their work. This course will be a writing intensive course as multiple drafts of their thesis will be reviewed and critiqued before the final report is written and accepted. (Topic will reflect contemporary issues and one subject to choose.)

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Criminal Justice

Must have the following Classification(s):

Senior

English Courses

ENGL 101 - Expository Writing and Reading

Develops students' abilities to read and write expository academic discourse. Teaches students how to read with understanding; how to access print and technological sources; how to research, plan, draft, revise, and edit academic essays and reports. Requires students to write expository essay and to keep a journal to express their responses to material read and study in the course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENGL 102 - Persuasive Writing and Reading

Develops students' abilities to read and write persuasive academic discourse. Teaches students to think and read critically, to evaluate and use print and technological sources effectively, and to present a written argument effectively. Requires students to write persuasive essays and research papers and to keep a journal to express their responses to material read and studied in the course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ENGL 101 Minimum Grade: D or HUM 101 Minimum Grade: D or HUM 106 Minimum Grade: D

ENGL 103 - Analytical Writing and Reading

Develops students' skills in critical and analytical reading and writing through a study of literature. Teaches students techniques to help them understand and appreciate literature. Requires students to read, analyze, and write essays and research papers about selected works of poetry, drama, and fiction and to keep a journal to express their responses to the literature studied.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ENGL 102 Minimum Grade: D or ENGL 105 Minimum Grade: D or HUM 102 Minimum Grade: D or HUM 105 Minimum Grade: D or HUM 107 Minimum Grade: D

ENGL 105 - Honors Freshman English

Develops students' abilities to read and write expository and persuasive academic discourse. Teaches students the components of the writing process and strategies to think and read critically and to present a written argument. Requires students to write expository and persuasive essays and research papers and to keep a journal to express their responses to the material read and studied in the course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Honors Program

ENGL 200 - Classical to Medieval Literature

A survey of Greek and Roman literature (Homer, Aeschylus, Euripides, Virgil and Cicero), up to and including the Medieval period (Aquinas, Cavalcanti, Chaucer, and Dante). This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 201 - Renaissance to the Enlightenment

A survey of Western literature from the Renaissance to the Enlightenment, focusing on works by Cervantes, Erasmus, Rabelais, Petrarch, Voltaire, Rousseau, Swift and Pope.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 202 - Romanticism to Modernism

A survey of Western literature of the 19th and 20th centuries focusing on the major periods of Romanticism (Blake, Coleridge and Keats), Realism (Balzac and Ibsen), and Modernism (Kafka, Borges and Woolf). This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 203 - Post-Colonial Lit I

A survey of nonwestern literatures produced before the modern era in Asia, Africa, and the Middle East, representing the more important periods and genres. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 204 - Post-Colonial Lit II

A survey of nonwestern literatures written in the 20th century by writers from Asia, Africa, and the Middle East, and focusing on the effects of social, aesthetic and contemporary events on artistic creation.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 205 - American Literature I

A survey of American literature from Colonial times through the Civil War, including works by such writers as Anne Bradstreet, Emily Dickinson, Frederick Douglass, Cotton Mather, Ralph Waldo Emerson, Nathaniel Hawthorne, Herman Melville, Henry David Thoreau and Walt Whitman. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 206 - American Literature II

A survey of American literature from the Civil War through the 21st century, including works by such writers as Kate Chopin, W.E.B. Du Bois, T.S. Eliot, William Faulkner, F. Scott Fitzgerald, Henry James, Philip Roth, Mark Twain and John Updike. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 207 - African American Literature

Introduces students to African-American Literature, from the mid-18th century to the present. Provides a basic understanding of social, political and cultural influences and an awareness of the African-American literary tradition. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 211 - British Literature I

A historical survey of British literature from its beginning to the end of the eighteenth century. Students will read texts selected to represent major authors, forms and thematic material that illustrates the development of English literature through the medieval, Renaissance, seventeenth, and eighteenth centuries This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 212 - British Literature II

A historical survey of British literature from the turn of the nineteenth century to the present; students will read texts selected to represent major authors, forms and thematic material of the Romantic, Victorian and modern periods.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 214 - Readings in Fiction

A basic course, which focuses on fiction as a genre through the study of a variety of short stories and fiction, organized by theme, period or form. One of three genre courses.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 215 - Readings in Poetry

A basic course which focuses on poetry as a genre through the study of a variety of poems organized by theme, period or form. One of three genre courses. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 216 - Readings in Drama

A basic course which focuses on drama as a genre through the study of a variety of plays organized by theme, period or form. One of three genre courses. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 300 - Literature & Science

This course studies the impact of scientific and technological change on works of literature and art produced in various historical periods. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 302 - Environmental Literature

This course explores the relatively recent discipline of Ecocriticism and considers the literary relationship between human beings and the natural environment--both altered and unaltered by human activity.

The approach is interdisciplinary in its investigation of the relationships among science, culture, and personal observation. Students will read a selection of seminal texts of American environmental literature.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 303 - Science Fiction

Provides reading and discussion of works illustrating the development of modern science fiction.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: D or HUM 108 Minimum Grade: D or ENGL 103 Minimum

Grade: D or ENGL 105 Minimum Grade: A

ENGL 304 - Young Adult Fiction

This course introduces students to young adult (YA) fiction and to secondary sources useful for the appreciation of it. Topics discussed include: young adults as an audience, the genres of YA fiction, keeping up with YA fiction, literary and psychological theory applied to YA fiction.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ENGL 103 Minimum Grade: D or ENGL 105 Minimum

Grade: A

ENGL 305 - The Mystery Story

A study of the mystery story, from its inception as a genre in the 19th century to the present, through short stories and novels. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 306 - Literature of Baseball

An examination of novels, short stories, and poetry about our "national pastime" that illumine American ideals and values, history and culture from 1845 to the present. A study of how the game's symbols and rituals, its history and mythology help us understand American belief systems and ideologies.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 307 - Literature of the Holocausts

To underline the fact that more than one Holocaust has occurred, the course offers different points of view about the systematic slaughter of several religious and ethnic groups, pre-and post-World War II, through fiction, children's literature and films.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 310 - Period Studies

This is a variable topics course, focusing on the literature of a particular period (i.e., Classical Literature; Victorian Literature; the Harlem Renaissance). May be repeated for credit. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 312 - Research Project Development

Acquisition of knowledge and skills related to the development of researchable original ideas that involves literature, philosophy, history, or any other humanities area, or a creative work or portfolio.

Credits: 1.00 to 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENGL 103 Minimum Grade: D or ENGL 105 Minimum

Grade: A

ENGL 315 - Shakespeare

This course focuses on Shakespeare's major plays and sonnets, providing the historical and cultural contexts that gave rise to his work. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 320 - Major Authors

A course focused on intensive study of one or more authors, for example: Jane Austen; Joseph Conrad; Hemingway, Faulkner and Fitzgerald; Writers of the Harlem Renaissance; Carlos Fuentes and Gabriel Garcia Marquez. May be repeated for credit. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 323 - Literature and Other Arts

A variable topics course which studies relationships between literature and one or more of the visual arts, theater or music (i.e., Surrealism; Memoir and Documentary Film; The Faust Legend). May be repeated for credit.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: D

ENGL 325 - Topics in World Literature

A variable topics course which focuses on a particular national or regional literature within its cultural, historical and political contexts (i.e., African Literature; French Literature; Latin American Literature). May be repeated for credit.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 330 - The Bible as Literature

This course provides a close reading of selected books of the Old and New Testaments alongside selected literary works to discover both the literary qualities of these texts and their influence on literature.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 335 - Mythology

This course investigates the specific forms mythological stories have taken in the literature, art and ritual of some or all of the following: Greece, Rome, Iceland, Mesopotamia and Native American and European cultures in the United States.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 345 - American Ethnic Literature

A variable topics course which studies the literature of one or more of the United States ethnic populations within their historical and cultural contexts. May be repeated for credit.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 350 - Jewish Lit and Civilization

Focuses on the Jewish Bible, a classic literary document of Western civilization, deemed by many people of the world as fundamental to their religion; stresses aspects of cultural diversity and awareness.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 355 - Women and Literature

This course focuses on literature written by, and/or about women and considers issues relating to women's place in literary history. May be repeated for credit. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 360 - Literature and Society

This course examines the relationship between literature and the society it reflects and helps shape. May be repeated for credit. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A

ENGL 365 - Topics in African Amer Lit

A variable topics course designed to further develop the ideas first presented in the African American Lit survey by exploring, in much more depth, significant authors, periods, and genres within the African American literary and cultural tradition. Topics include Science and Technology in African American Lit; the Slave Narrative; and Black Travel Writing.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

Pre-Requisites: ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A or HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D

ENGL 370 - Topics in Lit and Medicine

This is a variable topics course which focuses on aspects of illness, healing, care-giving, aging, grief, and mortality as presented in narrative. Exploration of how literary construction and analysis affect understanding of these experiences. Topics include ?Illness and Healing in Literature? and ?The Physician in Literature and Film.? May be repeated three times for credit.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Senior

ENGL 395 - Special Studies in Literature

This is a variable topics course, providing intense literary study on a specific theme. May be repeated for credit. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 399 - Ind Project in Literature

This course provides independent study on a project for one term only.

Credits: .50 to 12.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

ENGL 470 - Capstone Seminar in Medical Humanities

This seminar gives students the opportunity to synthesize, contextualize, and deepen their understanding of how disciplines in the humanities and the social sciences approach the experiences and implications of illness, aging, mortality and healing. Regular guest lecturers, discussion of assigned readings, student presentations, and written projects.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must be enrolled in one of the following Program(s):

Certificate AS-HSS

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: (ENGL 103 Minimum Grade: D or ENGL 105 Minimum

Grade: D) and HUM 315 Minimum Grade: B

ENGL 490 - Seminar in English/American Literature

An advanced course with variable topics in British or American Literature stressing textual analysis, cultural and historical contexts and research; provides students with intensive preparation for advanced and professional studies.

Credits: 4.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

English

Must have the following Classification(s):

Junior

ENGL 492 - Seminar in World Literature

An advanced course with variable topics in World Literature stressing textual analysis, cultural and historical contexts and research; provides students with intensive preparations for advanced and professional studies.

Credits: 4.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

English

Must have the following Classification(s):

Junior

Senior

ENGL 499 - Senior Project in Literature

Open to English Majors only, the senior project in literature should reflect the student's interest in a specific subject, author or theme and should demonstrate the student's research, critical and analytical expertise at an advanced, pre-professional level.

Credits: 4.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

English

Must have the following Classification(s):

Senior

English as a Second Language Courses

ESL 001 - Foundtns Univ Study

This course provides ESL students with a foundation for University success through developing academic skills and strategies and promoting awareness of the academic and co-curricular culture of the American university.

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 002 - Foundtns Acad Writ

This course introduces ESL students to the academic essay and the process approach to writing as well as reading for different purposes.

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 003 - Foundtns Acad Read

This course introduces ESL students to the skills of critical reading for information, specifically summarizing and evaluating source material.

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 010 - Listening and Speaking I

Low beginning English as a second language. Provides intensive instruction in the development of the following skills: speaking and listening in everyday situations, vocabulary, pronunciation, and grammatical functions. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 011 - Reading and Writing I

Low beginning English as a second language. Provides intensive instruction in the development of the following skills: reading comprehension, simple inferring, basic vocabulary development, sentence and paragraph writing, basic grammatical structures, and the ability to communicate ideas orally and in writing. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 012 - English in Everyday Life

Low beginning English as a second language. Prepares students who have trouble talking with and understanding native English speakers in everyday situations such as going to the store or the bank, asking for directions, using the telephone, etc. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 020 - Listening and Speaking II

High beginning English as a second language. Provides intensive instruction in the development of the following skills: speaking and listening (participating actively in spoken interactions and responding appropriately), vocabulary related to topics in the course, pronunciation and intonation patterns, and grammatical functions. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 021 - Reading and Writing II

High beginning English as a second language. Provides intensive instruction in the development of the following skills: reading comprehension, inferring, vocabulary development, non-academic paragraph writing, basic grammatical structures and mechanics, and the ability to communicate ideas orally and in writing. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 022 - Grammar & Pronunciation Wkshop

High beginning English as a second language. Emphasizes grammar, vocabulary, pronunciation, and idioms. Gives students a chance to improve and practice their English skills. Focuses on spoken and written standard American English. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 030 - Listening and Speaking III

Low intermediate English as a second language. Provides intensive instruction in the development of the following skills: pronunciation (sounds, stress, intonation), vocabulary, listening/speaking (participating and responding appropriately in discussions, following directions, completing listening activities), grammatical competence, and repair of communication breakdown. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 031 - Reading and Writing III

Low intermediate English as a second language. Provides intensive instruction in the development of the following skills: reading comprehension, inferring, vocabulary development, academic paragraph and essay format, grammatical structures and mechanics, and the ability to communicate ideas orally and in writing. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 032 - English for Business Purposes

Intermediate English as a second language. Provides communication skills needed to do business with English speakers. Topics include small talk and telephone skills, participation in business meeting, presentations, communication through business letters and memos, and business negotiation. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 033 - Idioms in American Culture

Intermediate English as a second language. Presents videos of popular American television as a basis for learning vocabulary and idiomatic expressions which are commonly used in the United States. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 034 - Understanding the News

Intermediate English as a second language. Emphasizes listening, discussion, and reading skills as students learn to read newspaper articles and to listen to news on the radio and TV. Provides instruction on how the news is made. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 035 - Vocabulary Development 3-4

Intermediate English as a second language. Provides strategies to improve academic, general, and technical vocabulary; to discover common roots in English words; and to improve reading skills. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 040 - Listening and Speaking IV

High intermediate English as a second language. Provides intensive instruction in the development of the following skills:

pronunciation/fluency (sounds, stress, intonation, linking, phrasing), vocabulary, listening/speaking (participate appropriately in spoken interactions, understand news, mini-lectures), repair of communication breakdown, and grammatical competence. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 041 - Reading and Writing IV

High intermediate English as a second language. Provides intensive instruction in the development of the following skills: reading comprehension, inferring, vocabulary development, academic essay format, grammatical structures and mechanics, and the ability to communicate ideas orally and in writing. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 042 - Advanced Grammatical Analysis

High intermediate to advanced English as a second language. Provides instruction and practice in such areas of advanced English grammar as usage of verb tenses, indirect speech, conditional sentences, clause structure, and the passive voice. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 043 - Oral Presentations 4-6

High intermediate to advanced English as a second language. Focuses on preparing, presenting and evaluating presentations. Explores ways to engage audience. Provides techniques for using language, voice and body to improve performance. Increases comfort, confidence and competence. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 044 - English for Academic Purposes

High intermediate to advanced English as a second language. Addresses academic skills topics such as listening to lectures and note taking, reading textbooks and synthesizing information, giving oral presentation, conducting research, and expanding academic vocabulary and grammar. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences
Department: English Language Center
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 045 - TOEIC Preparation 4-6

High intermediate to advanced English as a second language. Introduces skills and strategies that are helpful in taking the TOEIC test. Improves listening and reading comprehension skills. Focuses on analyzing types of test questions commonly asked and learning strategies for answering the questions. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences
Department: English Language Center
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 046 - TOEFL Preparation 4-6

High intermediate to advanced English as a second language. Prepares students to take the Drexel Institutional TOEFL exam and the computer-based TOEFL. Provides instruction in the listening comprehension, structure and written expression, vocabulary and reading comprehension sections of the TOEFL. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences
Department: English Language Center
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 047 - Test of Spoken English Prep

High intermediate to advanced English as a second language. Prepares students to take Test of Spoken English or the institutional version of the test (SPEAK). Provides practice to improve skills needed for the TSE. Offers strategies to identify and answer the questions on the test. Placement testing is required. Offered as needed. 2.5-0-0

Credits:

College: Arts and Sciences
Department: English Language Center
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 050 - Listening and Speaking V

Low advanced English as a second language. Provides intensive instruction in the development of the following skills: pronunciation/fluency (ease, speed, smoothness of speaking), vocabulary, listening/speaking (participate appropriately in spoken interactions, understand news reports, lectures), repair of communication breakdown, and grammatical competence. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences
Department: English Language Center
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 051 - Reading and Writing V

Low advanced English as a second language. Provides intensive instruction in the development of the following skills: reading comprehension, inferring, vocabulary development, academic essays and the use of source material, grammatical structures and mechanics, and the ability to communicate effectively in writing. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences
Department: English Language Center
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 052 - Vocabulary Development 5-6

Advanced English as a second language. Provides strategies to improve academic, general, and technical vocabulary; to discover common roots in English words; and to improve reading skills. Placement testing is required. Offered all terms. 3-0-0

Credits:

College: Arts and Sciences
Department: English Language Center
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 053 - Advanced Academic Writing 5-6

Advanced English as a second language. Develops students' skills in academic writing and the use of appropriate rhetorical patterns. Develops students' ability to check writing for organization, adequate development, and correct grammatical usage. Provides instruction on summarizing, paraphrasing, quoting, and citing sources. Placement testing is required. Offered as needed. 3-0-0

Credits:

College: Arts and Sciences
Department: English Language Center
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 054 - Adv Acad Listening Discussion

Advanced English as a second language. Develops students' ability to listen to lectures and take comprehensive notes. Required students to listen actively and retrieve information from notes for discussion. Improves ability to clarify, summarize, paraphrase, and support opinions appropriately, coherently and accurately. Placement testing is required. Offered as needed. 3-0-0

Credits:

College: Arts and Sciences
Department: English Language Center
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 055 - Strategies for Acad Reading

Advanced English as a second language. Improves reading comprehension. Provides skills for defining and identifying main and supporting ideas, recognizing transitional words and their role in meaning, and finding organizational patterns. Explores the authors' purpose, opinion, and tone. Placement testing is required. Offered as needed. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 056 - GMAT Preparation 5-6

Advanced English as a second language. Provides instruction for GMAT reading. Offers strategies to identify key parts of an argument and reviews grammatical and stylistic rules in the sentence correction section. Analyses arguments. Provides instruction for essay writing. Placement testing is required. Offered as needed. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 060 - Listening and Speaking VI

Advanced English as a second language. Provides intensive content-based instruction in the development of the following skills: pronunciation/fluency (ease, speed, smoothness of speaking), vocabulary, listening/speaking (participate appropriately in spoken interactions, understand news reports, lectures), grammatical competence, repair of communication breakdown. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 061 - Reading and Writing VI

Advanced English as a second language. Provides intensive instruction in the development of the following skills: reading comprehension, inferring, academic writing (including research paper with synthesis, summary, reaction, analysis, and citation of sources), grammar and mechanics, and effective communication in writing. Placement testing is required. Offered all terms. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 070 - GLOBE Business Information

Intermediate to advanced level English as a second language. Develops students' ability to read business material, understand key vocabulary and discuss current events in the business sector. Provides instruction

in reading and understanding case studies. Placement testing is required. Offered as needed. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 071 - GLOBE Business Communication

Intermediate to advanced level English as a second language. Improves students' ability to effectively communicate in business setting. Offers strategies for negotiation and provides instruction on cross-cultural communication styles. Placement testing is required. Offered as needed. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 072 - Business Sites Visits

Intermediate to advanced level English as a second language. Prepares students to observe American business practices on site. Develops research skill. Provides instructions and practice in organizing and making presentations as well as letter writing skills. Placement testing is required. Offered as needed. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 073 - Intro to Business Research

Intermediate to advanced level English as a second language. Introduces students to the research process of business related topics and exposes them to American culture and conversation through interaction. Offered as needed. 7.5-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 080 - Prep for Intl Teaching Asst

Intermediate to advanced English as a second language. Prepares new international teaching assistants for their responsibilities in the university. Provides intensive instruction in English language, pedagogy, and the culture of the American classroom. Department permission required. Offered as needed. 18-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 090 - English for Medical Purposes

High intermediate to advanced English as a second language. Develops participants' communication skills in medical context. Provides an overview of the American healthcare system and the dynamics of the different participants involved in the system. Placement testing is necessary. Offered as needed. 2.5-2.5-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ESL 091 - Spec Tops: English Lang & Cult

Advanced English as a second language. Focuses on specific issues in English structure and usage. Includes issues of discourse, sociolinguistics, and culture. Placement testing is necessary. Offered as needed. 3-0-0

Credits:

College: Arts and Sciences

Department: English Language Center

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Environmental Policy Courses

ENVP 345 - Sociology of the Environment

Examines the social causes and solutions of environmental problems, including consumption, energy use and transportation, global trade and economy, environmental justice, environmentalists and anti-environmentalist ideology, environmental social movements and sustainability.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENVP 346 - Environmental Justice

Focuses on the uneven distribution of environmental hazards. Topics include the impact of pollutants on human health; poverty, race and exposure to environmental hazards; the impact of science and law on environmental justice; causes of environmental injustice; and the efforts and impact of the environmental justice movement.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENVP 360 - Environmental Movements in America

Provides an introduction to the key collective actors and institutions involved in the creation of the U.S. environmental policies. Examines, through the use of historical and cultural perspective, the development

of the various worldviews, organizations, and practices that define U.S. environmental politics.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

ENVP 365 - Introduction to Environmental Policy Analysis

Provides an introduction to the development and implementation of U.S. environmental policy, including historical development, political process methods of analysis and creation of laws, regulations and budgets to realize policy objectives.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Environmental Science Courses

ENVS 169 - Environmental Science

This course provides an introduction to environmental problems and their causes, cultural changes, worldviews, ethics and environment. It covers such topics as science, matter and energy, ecosystems and how they work, air and air pollution, climate, global warming, and ozone loss, waste minerals and soil, solid, toxic and hazardous wastes, protecting food sources and energy resources.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENVS 230 - General Ecology

This course examines how organisms interact with the biological and physical world and bridges the natural sciences with the social sciences. Using evolutionary theory as its basis, this course will cover topics spanning multiple levels of organization within the science of ecology.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 106 Minimum Grade: D or BIO 141 Minimum

Grade: D or BIO 123 Minimum Grade: D

ENVS 260 - Environmental Science and Society I

This course is a multidisciplinary introduction to the range of disciplines that make up the environmental sciences. The aim of this course is to

provide an understanding of basic physical, ecological and social sciences that focus on the study on the natural environment and its interaction with human society.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

ENVS 262 - Environmental Science and Society II

This course is a continuation of ENVS 260. This sequence provides a multidisciplinary introduction to the range of disciplines that make up the environmental sciences. The aim of this course is to provide an understanding of basic physical, ecological and social sciences that focus on the study of the natural environment and its interaction with human society. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

ENVS 270 - History of Life on Earth

The origin and evolution of life on earth are examined. Topics include the origins of life and the natural histories of plants and animals. The role of natural selection and contingency are emphasized. Lab exercises include hands-on fossil identification and may include fossil collecting trips.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENVS 271 - Dinosaurs and Their World

An introduction to dinosaur paleontology, this course focuses on the scientific method as applied to dinosaur studies. Topics include dinosaur evolution, the history of dinosaur research, an overview of dinosaurs, and birds as living dinosaurs. This is suitable for all majors.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENVS 272 - Physical Geology

This course is an introduction to geology emphasizing the role of plate tectonics. Topics include formation of minerals, igneous, sedimentary, and metamorphic rocks, volcanoes, earthquakes, depositional environments, and geological hazards. Labs focus on mineral and rock identification, map skills, and 3D visualization.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENVS 284 - Physiological and Population Ecology

Examines the role of physiological adaptation in the ecology of plants and animals and the principles of population biology as applied to biological systems. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 230 Minimum Grade: D or ENVS 230 Minimum

Grade: D or BIO 141 Minimum Grade: D

ENVS 285 - Population Ecology Lab

This laboratory course will introduce the basic concepts of populations ecology in context of their modern ramifications and will prepare students for advanced research in population ecology.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 284 Minimum Grade: D or ENVS 284 Minimum

Grade: D

ENVS 286 - Community and Ecosystem Ecology

Introduces the principles of community and ecosystem ecology. Emphasizes the role of community structure and ecosystem organization in the ecology of plants and animals.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 230 Minimum Grade: D or ENVS 230 Minimum

Grade: D or BIO 141 Minimum Grade: D

ENVS 287 - Community Ecology Lab

This laboratory course will introduce the basic concepts of community ecology in context of their modern ramifications and will prepare students for advanced research in community and ecosystem ecology.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 286 Minimum Grade: D or ENVS 286 Minimum Grade: D

ENVS 316 - Sanitary Microbiology

Covers microscopic life forms of sanitary significance, with emphasis on bacteria. Includes thorough coverage of principles of metabolic biochemistry, the kinetics of microbial growth, and substrate assimilation. Emphasizes microbial aspects of environmental pollution control.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (BIO 121 Minimum Grade: D and BIO 141 Minimum Grade: D) and (MATH 239 Minimum Grade: D or MATH 123 Minimum Grade: D)

ENVS 321 - Environmental Health

Covers evaluation of environmental hazards and design of environmental controls for the health and well-being of humans. Accompanying seminar on current problems.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 121 Minimum Grade: D or BIO 141 Minimum Grade: D

ENVS 322 - Tropical Ecology

This is a course in the ecology of tropical rain forests and dry forests. Tropical ecology will explore the physical and biological factors that result in the formation of the forest, the effect of human impact, the effectiveness of management, and the future of these forests.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVS 230 Minimum Grade: D or ENVR 230 Minimum Grade: D

ENVS 323 - Tropical Field Studies

Ecology of tropical rain forests and dry forests. We will explore physical and biological factors that result in formation of these forests, effect of human impacts on these forests, effectiveness of management of these forests, and the future of these forests in Costa Rica in the field.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVS 322 Minimum Grade: D

ENVS 324 - Microbial Ecology

Studies the relationships of microbes with plants, animals, and the environment, both biotic and abiotic components. Examines the key role of microbes in the functioning of ecosystems affecting decomposition, disease, nutrient cycling, and energy flow. Studies these processes and the role of microbes in the natural functions of ecosystems.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 221 Minimum Grade: D or ENVR 316 Minimum Grade: D or ENVS 316 Minimum Grade: D

ENVS 326 - Molecular Ecology

Through a combination of lecture, discussion, and computational exercises, students will learn how molecular tools have been used to study genetic variation. They will then learn how these studies have provided answers to previously unanswered questions in fields including ecology, evolution, behavior, conservation, and forensics.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVS 284 Minimum Grade: D or ENVR 284 Minimum Grade: D or BIO 218 Minimum Grade: D

ENVS 327 - Molecular Ecology Lab

Through a combination of laboratory and computational exercises, students will develop a toolkit for applied molecular studies of ecology and evolution. The course will focus on initiating or continuing a novel research project relating to one of several topics within the field of molecular ecology.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENV5 284 Minimum Grade: D or ENVR 284 Minimum Grade: D or BIO 218 Minimum Grade: D

ENV5 330 - Aquatic Ecology

Studies the relationships between aquatic plants and animals and their environment. Introduces the study of the ecology of lakes, rivers, ponds, and streams.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENV5 230 Minimum Grade: D or ENVR 230 Minimum Grade: D

ENV5 331 - Industrial Hygiene I

Covers general principles of industrial hygiene, including historical background and development as an interdisciplinary profession. Includes identification of, evaluation of, and methods of controlling occupational exposures to biological and chemical agents in the form of aerosols, gases, vapors, liquids, and solids. Examines implications of toxicity and health effects for the workplace and relation to total environment.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 121 Minimum Grade: D or BIO 121 Minimum Grade: D

ENV5 332 - Industrial Hygiene II

Covers occupational exposure to physical agents including heat, cold, humidity, and ionizing and non-ionizing radiations. Also examines related aspects of safety, ergonomics, legal requirements, formation of government health agencies, and contemporary problems in occupational health.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 331 Minimum Grade: D or ENV5 331 Minimum Grade: D

ENV5 335 - Industrial Safety

Study of safety in the workplace. Loss prevention principles, Occupational Safety and Health Act Implementation, loss prevention, accident investigation techniques, and basics of loss control and risk management.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

ENV5 336 - Terrestrial Ecology

Studies the relationships between terrestrial plants and animals and their environment. Introduces the study of the ecology of local ecosystems, such as the Poconos and the New Jersey Pine Barrens.

Credits: 5.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENV5 230 Minimum Grade: D or ENVR 230 Minimum Grade: D

ENV5 338 - Biodiversity and Conservation

Provides clear and detailed treatment of the problem of the ongoing reduction in biological diversity around the world. Develops through class discussions insight into the modern theories and practice of conservation.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENV5 230 Minimum Grade: D or ENVR 230 Minimum Grade: D

ENV5 341 - Equatorial Guinea: Society & Environment

A lecture and community outreach course based at the National University of Equatorial Guinea that combines instruction in mankind's relationship with the natural environment (human population, natural resources, environmental degradation, pollution, biodiversity loss and climate change) with environmental outreach activities specific to Equatorial Guinea.

Credits: 4.50

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENV5 342 - Equatorial Guinea: Natural Resource Economics

A lecture course based at the National University of Equatorial Guinea that combines instruction in the economic implications of natural resources (renewable and non-renewable resources, efficient utilization, market performance, government controls, sustainability and discounting) with a university-wide guest lecture series addressing local issues.

Credits: 4.50

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENVS 343 - Equatorial Guinea: Field Methods

A lecture and field excursion course based at the University of Equatorial Guinea combining instruction in standard methods for studying rainforest communities (expedition planning; GPS and mapping, forest diversity and productivity; wildlife population monitoring) with multi-day field experiences in Bioko Island's remote protected areas.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENVS 344 - Equatorial Guinea: Field Research

An intensive research course that takes advantage of the unspoiled rainforest adjacent to the Moka Wildlife Center, a university-affiliated research station located in the highlands of Bioko Island, Equatorial Guinea (Central/West Africa). Opportunities exist for student research on topics including primates, antelope, birds, chameleons, butterflies and plants.

Credits: 6.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ENVS 351 - Resource and Environmental Economics

Examines the microeconomic and quantitative aspects of markets for both renewable and exhaustible resources, and the interaction between the energy and resource sectors of the economy and between the productive sectors of the economy and the natural environment, with evaluation of major public initiatives and issues in these areas.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ECON 201 Minimum Grade: D and ECON 202 Minimum Grade: D

ENVS 364 - Animal Behavior

The mechanisms, ecology and evolution of the activities of animals in relation to their natural environment. Topics include development and control (neural and hormonal) of behavior, adaptations for survival, feeding, and predator avoidance, strategies of habitat selection, communication, reproduction, and social behavior.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Co-Requisites: ENVS 365

Pre-Requisites: ENVS 230 Minimum Grade: D

ENVS 365 - Animal Behavior Lab

An observational study of the behavior of a captive group of social animals at the Philadelphia Zoo including species selection, background research, ethogram construction, 16 hours of quantified observation, analysis of data and written report.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Co-Requisites: ENVS 364

Pre-Requisites: ENVS 230 Minimum Grade: D

ENVS 370 - Practice of Environmental Economics

The focus of this course is on the real world implications of environmental resources exploitation and economic tools for dealing with them. Areas include air and water pollution, toxic wastes and mineral, water and forestry resource harvesting/extraction.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ECON 201 Minimum Grade: D and ECON 202 Minimum Grade: D

ENVS 374 - Sedimentary Environments

Students in this course develop an understanding of sedimentary processes and the ability to interpret paleoenvironments based on sedimentological parameters. Topics include current flow, bedforms, siliclastic and carbonate rocks, fluvial, coastal, and Aeolian environments, taphonomy, and paleosols.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 272 Minimum Grade: D or ENVS 272 Minimum Grade: D

ENVS 375 - Invertebrate Paleontology

This course focuses on the evolution of hard-bodied invertebrates from the Cambrian period to today. Topics include taxonomy, taphonomy, biostratigraphy, and paleoecology. Natural selection, functional morphology, extinction and adaptation are emphasized. The lab focuses on hands-on fossil identification.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 270 Minimum Grade: D or ENVS 270 Minimum Grade: D

ENVS 382 - Field Botany: NJ Pine Barrens

This course focuses on plant identification skills that are necessary to conduct scientific botanical surveys. The vascular flora of the New Jersey Pine Barrens, including rare plant species, is emphasized with special reference to habitat and community analysis. Non-vascular species are examined but not emphasized.

Credits: 5.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ENVR 284 Minimum Grade: D or ENVS 284 Minimum Grade: D or ENVR 286 Minimum Grade: D or ENVS 286 Minimum Grade: D

ENVS 383 - Ecology of the NJ Pine Barrens

Course focuses on the ecology of the New Jersey Pine Barrens. Students learn field methods, identify index species (flora and fauna), perform community analyses, and use equipment for measuring abiotic variables (soil and water). Field exercises focus on key aspects of the regional ecology: fire, soil and water.

Credits: 5.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ENVR 284 Minimum Grade: D or ENVS 284 Minimum Grade: D or ENVR 286 Minimum Grade: D or ENVS 286 Minimum Grade: D

ENVS 388 - Marine Field Methods

Course focus is on the ecology of local marine environments. Students learn marine field survey methods, identification of marine organisms, habitat analyses, and use of equipment for measuring abiotic variables.

Students sample fish, plankton and invertebrate species aboard the Drexel 25 foot Research Vessel Peter Kilham.

Credits: 5.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 284 Minimum Grade: D or ENVS 284 Minimum Grade: D or ENVR 286 Minimum Grade: D or ENVS 286 Minimum Grade: D

ENVS 390 - Marine Ecology

This course studies major processes in the marine environment, especially relationships between organisms and the factors that influence their abundance.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 230 Minimum Grade: D or ENVS 230 Minimum Grade: D

ENVS 392 - Ichthyology and Herpetology

Many species of fishes, amphibians and reptiles face extirpation from their former ranges and some face total extinction within our lifetime. This course investigates major regional and global issues concerning viability of these organisms and addresses solutions using concepts of population ecology, community ecology, physiological ecology and conservation biology.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 230 Minimum Grade: D or ENVS 230 Minimum Grade: D

ENVS 401 - Chemistry of the Environment

Covers principles of physical and organic chemistry applicable to the study and evaluation of environmental conditions, especially the pollution of air, water, and soil (including chemical changes and reactions in the environment).

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVE 302 Minimum Grade: D or CHEM 103 Minimum Grade: D

ENVS 405 - Atmospheric Chemistry

Introduces the principles of atmospheric physics and photochemical kinetics as a prelude to understanding the atmospheric chemical system. Examines the chemistry of the natural atmosphere to prepare for the understanding of how pollutants interact with natural species. Considers pollution of the stratosphere and the troposphere.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 401 Minimum Grade: D or ENVS 401 Minimum

Grade: D

ENVS 410 - Physiological Ecology

Examines mechanisms by which physiological factors affect and limit the distribution and abundance of animals, including physiological and behavioral thermoregulation, heat and cold tolerance, acclimation, metabolism, osmoregulation and dehydration tolerance, feeding strategies, digestion and feeding patterns, energy and water budgets, toxins and optimality theory.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (ENVR 230 Minimum Grade: D or ENVS 230 Minimum

Grade: D) and (ENVR 284 Minimum Grade: D or ENVS 284 Minimum

Grade: D or BIO 201 Minimum Grade: D)

ENVS 412 - Biophysical Ecology

Covers energy balances and methods of heat transfer in organisms, including convection, conduction, radiation, evaporation, and metabolism and steady-state and transient energy balances, including mass balances, water uptake and evaporation.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (MATH 239 Minimum Grade: D or MATH 123 Minimum

Grade: D) and PHYS 153 Minimum Grade: D and (ENVR 230 Minimum

Grade: D or ENVS 230 Minimum Grade: D)

ENVS 413 - Advanced Population Ecology

One of the greatest issues concerning life on Earth and human impact on the planet is whether species will survive or go extinct. This course

explores how wild populations change over time and investigates the concepts and quantitative methods used to determine the viability of plant and animal populations.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (ENVR 284 Minimum Grade: D or ENVS 284 Minimum

Grade: D) and (ENVR 286 Minimum Grade: D or ENVS 286 Minimum

Grade: D)

ENVS 414 - Advanced Community Ecology

Community ecology is the study of how populations of organisms interact with each other and the physical environment. Students will investigate the underlying principles that explain and predict interactions among populations of organisms, and how these principles can be used to conserve and manage wild animal and plant communities.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (ENVR 284 Minimum Grade: D or ENVS 284 Minimum

Grade: D) and (ENVR 286 Minimum Grade: D or ENVS 286 Minimum

Grade: D)

ENVS 431 - Epidemiology

Covers principles, purposes, and methods of epidemiology, including application of methods for the investigation of problems in the field of human diseases, both infectious and non-infectious, with emphasis on the relationship and equilibrium of host and environmental factors.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 316 Minimum Grade: D or ENVS 316 Minimum

Grade: D or BIO 221 Minimum Grade: D

ENVS 436 - Principles of Toxicology I

This course reviews general human physiology and the acute and chronic effects of toxicants upon physiological mechanism. Basic principles of dose-response relationships, target organ toxicity and exposure characterization are incorporated.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 201 Minimum Grade: D

ENVS 437 - Principles of Toxicology II

This course expands upon knowledge gained in ENVS 436 Principles of Toxicology I by focusing on the absorption, distribution, biotransformation, and excretion of toxic substances. Current advances in the studies of carcinogenesis and mutagenesis are also discussed as well as toxicological research methods, animal and plant toxins, food toxicology and pesticides.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 436 Minimum Grade: D or ENVS 436 Minimum Grade: D

ENVS 441 - Issues in Global Change I: Seminar

Discusses and evaluates topics such as records of climate change, atmospheric chemistry and global warming, the greenhouse effect, ozone depletion, acid rain, decreased biodiversity, desertification, deforestation, and sea-level rise. This is a writing intensive course.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must have the following Classification(s):

Senior

ENVS 442 - Issues in Global Change II: Research

Requires students to focus on a particular change topic or issue in order to analyze it, prepare a research report, and present a final seminar.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must have the following Classification(s):

Senior

ENVS 460 - Evolution

Examines historical evidence for and principal mechanisms of organic evolution, the origin of life and new groups in the past and present, and the genetic basis for evolution. Discusses current research in evolutionary biology and paleontology.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 284 Minimum Grade: D or ENVS 284 Minimum Grade: D or ENVR 286 Minimum Grade: D or ENVS 286 Minimum Grade: D

ENVS 476 - Paleobotany

Covers the evolution of photosynthetic organism from algae to flowering plant. Topics include origins of plants, invasion of the land, evolution of ferns, gymnosperms, and angiosperms. Emphasis on natural selection, cladistics, functional morphology, adaptive radiation, mass extinction, plant taphonomy, and paleoecology.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVS 270 Minimum Grade: D or ENVR 270 Minimum Grade: D

ENVS 477 - Vertebrate Paleontology

This course focuses on the evolution of vertebrates from the Cambrian Period to today. Topics include cartilaginous and bony fishes, amphibians, turtles, crocodiles, pterosaurs, birds, and mammals. Natural selection, cladistics, functional morphology, adaptation and extinction are emphasized.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENVR 270 Minimum Grade: D or ENVS 270 Minimum Grade: D

ENVS 480 - Special Topics

Special topics offered in environmental science. Topics include recent multidisciplinary areas of environmental concern.

Credits: 12.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

ENVS 497 - Research

Provides guided research in ecology, earth science and environmental science.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

ENVS 498 - Independent Study

Provides independent study in environmental science.
Credits: .50 to 12.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Must have the following Classification(s):
Junior
Senior

German Courses

GER 101 - German I

Introductory German. Includes listening, reading, writing, and speaking.
Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

GER 102 - German II

Continues GER 101. Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 101 Minimum Grade: D

GER 103 - German III

Continues GER 102. Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 102 Minimum Grade: D

GER 201 - German IV

Intermediate German. Includes grammar review, listening, speaking, and reading. Recommended for students who wish to attain oral competence. Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 103 Minimum Grade: D

GER 202 - German V

Continues GER 201. Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 201 Minimum Grade: D

GER 203 - German VI: Convers & Comp

Provides intensive practice in comprehension and written and oral communication. Emphasizes development of writing skills and increased oral competence in everyday situations. Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 202 Minimum Grade: D

GER 311 - Intro German Stylistics

Provides advanced practice in comprehension and written and oral communication, based primarily on periodicals and contemporary media. Offered as needed. This is a writing intensive course.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 203 Minimum Grade: D

GER 312 - German Stylistics

Continues GER 311. Provides extensive study of the techniques of translation and communication. Offered as needed. This is a writing intensive course.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 311 Minimum Grade: D or GER 331 Minimum Grade: D or GER 351 Minimum Grade: D

GER 313 - Advanced German Stylistics

Continues GER 312. Provides advanced training in oral and written communication in German. Particularly recommended for students who have pre-proficiency status, German minors, and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.
Credits: 3.00

College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 312 Minimum Grade: D

GER 331 - Intro German Lit Studies

Advanced German. Reading, writing, and extensive conversational practice, based on masterpieces of German literature.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

GER 332 - Studies in German Literature

Includes reading and oral and written analysis of representative texts in German literature, including familiarization with the historical and cultural contexts. Offered as needed.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 313 Minimum Grade: D

GER 333 - Advanced German Literature

Continues GER 332. Provides advanced study of German literature. Offered as needed.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 332 Minimum Grade: D

GER 351 - Intro Bus & Prof German

Provides intensive oral practice and written work in business, professional, and commercial German. Offered as needed.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 203 Minimum Grade: D

GER 352 - Business & Prof German

Advanced business and professional German. Advanced practice in oral and written German for business and the professions. Based on advanced texts, periodicals, and technical journals.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication

Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 311 or GER 331 or GER 351

GER 353 - Adv Business & Prof Germn

Provides advanced study in business and professional terminology, with emphasis on the structure and protocols of the business world. Offered as needed.
Credits: .50 to 20.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 351 Minimum Grade: D

GER 371 - Spec St German Civ & Cult

Presents an integrated approach in German to the civilization, culture, history, and literature specific to the areas in which the language is spoken, with emphasis on the development and evaluation of cultural values. Offered as needed.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 313 Minimum Grade: D

GER 399 - Adv Independ Study German

Provides supervised study of special subjects in German language and literature. Offered all terms. This is a writing intensive course.
Credits: .50 to 12.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: GER 203 Minimum Grade: D

GER 411 - Spec St Adv German Stylis

Continues GER 313. Particularly recommended for students who have proficiency status, German minors, and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: GER 313 Minimum Grade: D

GER 431 - Spec St Adv German Lit

Continues GER 333. Particularly recommended for students who have proficiency status, German minors, and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: GER 333 Minimum Grade: D

GER 451 - Sp St Adv Bus/Prof German

Continues GER 353, with emphasis on the structure and protocols of the European Union. Particularly recommended for students who have proficiency status, German minors, and students interested in graduate study and/or international careers. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: GER 353 Minimum Grade: D or GER 313 Minimum

Grade: D or GER 333 Minimum Grade: D or GER 371 Minimum Grade: D

GER 471 - Sp St German Civilization

Presents an integrated approach, at the advanced level, to the civilization, culture, history, and literature of a given period specific to the areas in which German is spoken, with emphasis on the development and evaluation of cultural values. Offered as needed. This is a writing intensive course.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: GER 371 Minimum Grade: D or GER 313 Minimum

Grade: D or GER 333 Minimum Grade: D or GER 353 Minimum Grade: D

GER 480 - German Minor Thesis Course

Independent research study on a topic selected by the student. Independent study is supervised by a faculty member and guided by a plan of study. At the end of the course, the student is required to produce a paper and oral defense on the topic of his paper.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

GER 499 - Special Topics in German

Recommended for German minors and for students with proficiency status. Offered all terms. This is a writing intensive course.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Greek Courses

GREC 101 - Modern Elementary Greek I

The goal of this course is to provide a thorough foundation in Greek language with emphasis on communication. Small class size provides intensive practice in speaking, writing and listening comprehension.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

GREC 102 - Modern Elementary Greek II

The goal of this course is to provide a thorough foundation in Greek language with emphasis on communication. Small class size provides intensive practice in speaking, writing and listening comprehension.

Builds on Greek 101.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: GREC 101 Minimum Grade: D

GREC 103 - Modern Elementary Greek III

The goal of this course is to provide a thorough foundation in Greek language with emphasis on communication. Small class size provides intensive practice in speaking, writing and listening comprehension.

Builds on Greek 102.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: GREC 102 Minimum Grade: D

GREC 212 - Introduction to Greek Folklore

Greek folklore developed when the Greek nation was born. Using folklore, Greeks try to preserve their traditions and define their cultural identity. The class explores majors folklore topics and interpretive techniques. It provides examples and analyses of particular folklore forms, events and expressions of the Greek culture.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

GREC 225 - Introduction to Greek Music & Dance

This course studies Greek music and dance historically by a) exploring performance events and b) focusing on certain music and dance genres and music groups/musicians. How does music and dance help Greeks express who they are? Formal music training and the ability to read Western staff notation is not required.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

GREC 399 - Independent Study in Greek

Provides supervised study that allows students to explore topics of their own choosing individually.

Credits: 1.00 to 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

History Courses

HIST 140 - Europe & the Modern World I

Provides an introduction to the 18th and 19th centuries, including the Age of Enlightenment, the American Revolution, the French Revolution and Napoleonic era, transatlantic industrialization, liberalism and nationalism, the revolutions of 1848, the American Civil War, and the unifications of Italy and Germany.

Credits: 4.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

HIST 141 - Europe & the Modern World II

Examines imperialism; the rise of the United States and Japan as world powers; the spread of industrialization, democracy, and socialism; world wars; communism and fascism; and the rise of the non-West.

Credits: 4.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

Pre-Requisites: HIST 140 Minimum Grade: D

HIST 161 - Themes World Civilization I

Examines development of civilizations from antiquity to the 12th century. Views patterns of historical change through key themes and interpretive debates, including political structures; land tenure and

social systems; commercial and trade relations; the development of cities, science, and technology; and religions.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

HIST 162 - Themes World Civilization II

Provides an analysis of civilizations from the 12th century to 1815 viewed through key themes and interpretive debates, including the development of the nation-state, interaction between civilizations, the concept of cultural unity, religious upheaval, disease and science, the relationship between culture and politics, and the nature of revolutions.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

HIST 163 - Themes World Civilization III

Explores the emergence of modern civilization through key themes and interpretive debates, including industrialization, imperialism, science and technology, ideological debate, the nature of modern warfare, the relationship between nationalism and the state, and the emergence of state-sponsored racism.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

HIST 201 - US History to 1815

Examines the political, economic, and social forces that shaped America in the era of its founding.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

Freshman

HIST 202 - US History, 1815-1900

Examines the emergence of modern America to the close of the Spanish-American War.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

HIST 203 - US History since 1900

Examines America as economic giant, world political power, and scene of social change.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HIST 209 - US & Central America

Covers the history of relations between the United States and the nations of Central America.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 212 - Themes in African-American History

Explores the major issues in the development of Afro-American history through the 19th century, beginning with an overview of West and Central African societies in the 15th and 16th centuries and including the family, religion, forms of resistance, aesthetics, and patterns of white-black relationships.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 214 - US Civil Rights Movement

Examines the origins, objectives, successes and failures of the Civil Rights movement in the United States between 1954 and 1972.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HIST 215 - American Slavery

This course is a rigorous examination of slavery and its representation in the United States. Using primary and secondary resources, art, literature and film clips; the relationship between history and memory and the impact of the social, political, and gendered imagination are investigated.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

HIST 216 - Freedom in America

This course examines African-American history, 1865 to the present, and explores the impact of gender and sexuality in history. Specifically, comparing primary and secondary sources in order to critique how history itself is manufactured and to investigate the role that sexuality and gender play on that process.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

HIST 218 - Race and Film in US History

This course examines the interplay between history, film and African American? pursuit of social justice and equality. Specifically, the use of films as cultural artifacts or prisms through which better understanding of the dynamics of race and racial inscription in America.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

HIST 220 - History of American Business

Examines the development of business in the United States from the 1870s to the present. Emphasizes the evolving structure of business enterprise, business/government relations, business in an international context, and business and American culture.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 222 - Hist Work & Workers in America

Examines the changing nature of work and the lives of American workers, from the origins of wage labor in the 19th century to the transformation of the workplace in the 20th.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 223 - Women and Work in America

Examines the historical roots of women's work in the U.S. from the Colonial period to the present, including women and unions, occupational segregation, race and ethnicity, industrialization, depression, war, and the rise of a consumer economy.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 224 - Women in American History

Covers the history of American women from the 1890s to the present, with emphasis on women's rights, women and technology, women's role in war, and women in the labor force in the 20th century.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 230 - US Military Hist I before 1900

Covers the origins and development of military institutions, traditions, and practices in the United States from the Revolution to the Spanish-American War, and the operational, intellectual, diplomatic, and social aspects of military history.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HIST 231 - US Military Hist II since 1900

Examines the emergence of the United States as a major military power, including military/civil relationships; the impact of technological change; and the world, Korean, and Vietnam wars.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HIST 232 - The American Revolution

Investigates why Americans rebelled against Great Britain, how they gained their independence against staggering odds, and the new problems created by independence. Looks at the Revolution as a model of the first successful struggle of colonial subjects against their European overlords.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 234 - US Civil War

Examines the causes, course, and results of the American Civil War.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HIST 235 - The Great War, 1914-1918

Examines the global causes, conduct, and consequences of World War I, which fundamentally altered our century's political, social, economic, and cultural institutions.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 236 - World War II

Provides an in-depth study of World War II, with emphasis on Europe but also including the war in North Africa, Asia, and the Pacific.

Discusses major military events in a broad political framework, with lectures on economic, social, and scientific developments.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 237 - Topics in the Cold War

Investigates various aspects of the History of the Cold War from 1947 to 1991. Topics will vary from U.S. domestic politics, the politics of the nuclear age, to other foreign policy aspects of the Cold War in its different stages.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HIST 238 - The Vietnam War

Covers Southeast Asia before the French, the French imperium, the First Indochina War, entry of the United States, the Second Indochina War, and withdrawal of the United States.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education
May not have the following Classification(s):
Freshman

HIST 241 - Modern France

Discusses France since the Revolution, with emphasis on the Third and Fourth Republics. Seeks to reconcile the appearance of extreme political instability and intellectual ferment with evidence of strong economic and social conservatism.

Credits: 3.00
College: Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

HIST 242 - Modern Italy

Covers Italy from Napoleon to the present, including risorgimento, unification, trasformismo, fascism, and the post-World War II period.

Credits: 3.00
College: Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

HIST 243 - Germany & World of Hitler

Examines German history since 1815. Emphasizes the roots of national socialism, the world wars, and Hitler the man. Ends with the fall of East Germany, the reunification of 1990, and recent trends.

Credits: 3.00
College: Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

HIST 244 - 20th-century Russia & USSR

Examines the last years of imperial Russia, showing the background to the revolutions of 1917, followed by a study of the institutions and personalities of the USSR.

Credits: 3.00
College: Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

HIST 245 - England to Elizabeth, to 1558

A survey of the formation of the English people and their growth to national independence and maturity.

Credits: 3.00
College: Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

HIST 246 - England Eliz/Wtrloo,1558-1815

Covers the crisis of the English constitution, the beginnings of modern society and the Industrial Revolution, and the formation of the British Empire.

Credits: 3.00
College: Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

HIST 247 - Modern England, 1815 - present

Examines Victorian England as the first industrial society, the course of empire through two world wars, and the challenge of the present.

Credits: 3.00
College: Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

HIST 249 - Modern Jewish History

Explores the social, cultural, political and religious forces that have shaped world Jewry from the 18th to the 20th centuries.

Credits: 3.00
College: Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

HIST 250 - Euro Rev Ideology, 1815-1914

Provides a comprehensive analysis of the development and influence of the principal revolutionary movements and ideologies that challenged the European status quo from 1815 to 1914.

Credits: 3.00
College: Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

HIST 251 - Fascism

Provides a chronological/topical study of fascist movements and regimes in Europe between 1919 and 1945, with emphasis on Italian Fascism and German Nazism.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 252 - Europe between Wars, 1919-1939

Examines Europe in the 1920s and 1930s, with emphasis on totalitarianism and the causes of World War II. Analyzes the search for peace and stability following World War I; totalitarianism in Italy, Germany, and the Soviet Union; the decline of Great Britain and France and their appeasement policies; and Nazi fascist aggression and the crises leading to World War II.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 253 - Jewish Life and Culture in Middle Ages

This course is an introductory survey of the history of the Jewish people, their civilization, religion, and contacts with other cultures in medieval times. Topics will include the rise of Christianity and Islam, the Talmud, Jewish mysticism, and the growth of Ashkenazic and Sephardic Jewry.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HIST 258 - Hist of Europe, 19th Century

Analysis of the forces and events that define European civilization in the 19th century, from the Congress of Vienna to the origins of WW1.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HIST 259 - Hist of Europe, 20th Century

Analysis of the forces and events that define European civilization in the 20th century, from the outbreak of WW1 to the present.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HIST 263 - The World and China

Examines China from its origins to the present day, with emphasis on social, political, and economic institutions. Describes the influences Chinese civilization has had on other societies of the world and the influences other societies have had on China.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 264 - East Asia in Modern Times

Deals primarily with China and Japan, including a description of their traditional societies and the changes they have undergone during the 20th century.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 267 - Twentieth Century World I

Examines movements, institutions, and personalities in the major regions of the world, from 1890 through 1939.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

HIST 268 - Twentieth Century World II

Studies events in the major regions of the world since 1945 in historical perspective.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

HIST 270 - Intro Latin American History

Takes a thematic approach to Latin American history, examining modernization and tradition, sex roles and family honor, love and lust, dictatorship and human rights abuses, poverty and crime, terrorism and revolutionary violence. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

HIST 271 - History of Mexico

Surveys themes in Mexican history from the ancient civilizations of the Mayans and Aztecs to the present, including Spanish conquest, Hapsburg and Bourbon colonial systems, independence wars, social conflict and political protest, the Reform, Maximilian's empire, economic expansion, the revolution of 1910, and revolutionary Mexico.
Credits: 3.00

College: Arts and Sciences
Department: History & Politics
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

HIST 272 - Ancient & Colonial Mexico

Surveys Mexico from the ancient Aztecs; their conquest by the Spanish; three hundred years of colonialism under the Hapsburg and Bourbon dynasties to the 1810s. Covers role of race, class, gender and family (marriage and food).
Credits: 3.00

College: Arts and Sciences
Department: History & Politics
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

HIST 273 - Modern Mexico

Surveys Mexico from the Wars of Independence (1810's) to the present. Pays attention to changing values evident in rituals, celebrations and food.
Credits: 3.00

College: Arts and Sciences
Department: History & Politics
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

HIST 280 - History of Science I

Covers the development of the scientific ideas of Newton, with emphasis on the nature of science and scientific method. Provides an opportunity for students to pursue their own interests.
Credits: 3.00

College: Arts and Sciences
Department: History & Politics
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

HIST 281 - History of Science II

Covers scientific ideas from Newton to the early 20th century, including cultural influences on science and relationships between science and technology. Centers on student interests.

Credits: 3.00
College: Arts and Sciences
Department: History & Politics
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):

HIST 282 - The Scientific Revolution

Tracing cosmology and physics from Copernicus through Newton, and the biological sciences from Vesalius through Harvey, this course puts the Scientific Revolution in historical perspective. The impacts of major movements like the Renaissance and the Reformation are examined.
Credits: 3.00

College: Arts and Sciences
Department: History & Politics
Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

HIST 285 - Technology in Historical Perspective

Examines the causal interrelations between technological progress and developments in economic, social, intellectual, and political aspects of Western civilization from the 18th century to the present.
Credits: 3.00

College: Arts and Sciences
Department: History & Politics
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

HIST 286 - Exploration in Technology and Gender

Examines how, when, and why science and technology have become masculinized since the 12th century, producing a world without women.
Credits: 3.00

College: Arts and Sciences
Department: History & Politics
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

HIST 290 - Technology and the World Community

Examines the effect on international relations of rapid technological change in the modern era, and technology as a tool of modernization, political integration, and national security among advanced and developing states.
Credits: 3.00

College: Arts and Sciences
Department: History & Politics
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):

Freshman

HIST 292 - Technology in American Life

Examines the role of technology as means of production, social force, and ideology in modern U.S. history.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 296 - Research Methods in History

Designed for history majors, this course introduces students to the fundamentals of historical research. The course focuses on methods, particularly in teaching students to locate and analyze evidence.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

HIST 298 - Special Studies in History

Provides supervised individual study of subjects in history. May be repeated for credit.

Credits: 12.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 299 - Hist Background Current Issues

Examines a current policy issue in its historical context. See departmental brochure for topic scheduled for a particular term. May be repeated for credit.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 301 - The Study of History

Introduces the discipline of history and historical research. Examines philosophies of history, great historical debates, and the nature of historical evidence.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HIST 296 Minimum Grade: D

HIST 310 - Women, Crime, & History

This class will examine gender, race and crime in US history.

Specifically, we will explore the experience of female criminals from the colonial period to the present. We will conduct primary research into this subject at the Philadelphia City Archive (PCA), located at 3101 Market Street. Students will be responsible for a final research paper based on their research findings.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HIST 332 - Junior Seminar

A research seminar directed by a historian. Requires students to write an extended paper on a topic selected in consultation with the instructor. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 490 - Senior Seminar I

Requires an in-depth research project supervised by a historian. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HIST 491 - Senior Seminar II

Requires completion of the project begun in HIST 490. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HIST 490 Minimum Grade: D

HIST 492 - Senior Seminar

The senior capstone course in history. Students complete an in-depth research project supervised by an historian.

Credits: 3.00

College: Arts and Sciences

Department: History & Politics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Must be enrolled in one of the following Major(s):

History

Must have the following Classification(s):

Senior

Pre-Requisites: HIST 301 Minimum Grade: D

Humanities, General Courses

HUM 006 - Oral Comm Sk/Non-Native Spkr

Designed to help international members of the Drexel community improve their listening comprehension and oral communication skills in English. Provides participants with opportunities to make presentations and receive constructive feedback, with particular attention to grammar, pronunciation, and fluency problems. Especially recommended for international teaching assistants.

Credits:

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

HUM 106 - Humanities & Commun I

Covers reading of fictive and expository works and writing of essays of response and critical analysis. Introduces technical writing. Develops an awareness of audience and begins group work for collaborative projects, with a focus on creativity in the liberal arts and in engineering. Requires students to keep journals as tools for reflection.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

HUM 107 - Humanities & Commun II

Covers the research process. Continues work with critical analysis begun in hum 106. Requires students to apply research methodology as they write a critical review and a chemistry synthesis paper, and develop group proposals for their design projects. Also requires students to continue the study of literature begun in hum 106 and continue keeping journals.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 106 Minimum Grade: D

HUM 108 - Humanities & Commun III

Requires students to write a literary analysis of a play in production locally and discuss visual arts. Includes written and oral presentations of students' final engineering design projects. Coordinates readings in non-fiction with the course science component. Requires students to write a synthesis paper for biology and continue using journals as a means for reflection.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: HUM 107 Minimum Grade: D

HUM 159 - Peer Tutoring Workshop

A course in which students learn to do writing-intensive tutoring using theory and practice. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

HUM 211 - Studies in the Humanities I

Introduces the subject matter, methodologies, and critical issues of the humanities.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

HUM 305 - Metaphorical Thinking

Interdisciplinary study of the process of metaphorical thinking

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

HUM 315 - Perspectives in Medical Humanities

This course introduces a multidisciplinary approach to health related topics rooted in literary, philosophical, social, scientific/technological, and psychological perspectives and methodologies. Discussion format and student participation in choosing readings enhance a sense of community among the participants.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must be enrolled in one of the following Program(s):

Certificate AS-HSS

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

International Area Studies Courses

IAS 190 - Global Research Methods

Introduction to research and writing in International Area Studies. It covers quantitative, qualitative, and mixed approaches to IAS research. Students learn to use international studies research databases and the websites of international organization. Drawing on the content areas from the four IAS concentrations, students construct a research design for a topic of their choice.

Credits: 3.00

College: Arts and Sciences

Department: Int'l Studies & Modern Langs

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

International Area Studies

IAS 320 - Building Global Bridges

This course is designed to develop an understanding of international development. Students learn about the practical challenges of development work from local needs to grant writing, fund-raising, implementation strategies, and project evaluation. They study the theoretical and practical frameworks for poverty reduction and democracy development as well as the agencies involved.

Credits: 3.00

College: Arts and Sciences

Department: Int'l Studies & Modern Langs

Restrictions:

Must be enrolled in one of the following Program Level(s):

Graduate Quarter

Undergraduate Quarter

May not have the following Classification(s):

Freshman

IAS 359 - Culture and Values

This course provides an in-depth comparative study of the historical, social and cultural imperatives of major world civilizations, with particular emphasis on the philosophical and cultural diversity of today's global society. It is recommended for all students interested in

careers in the international field. It is required for the B.A. and B.S. degrees in International Area Studies and for the IAS minor.

Credits: 3.00

College: Arts and Sciences

Department: Int'l Studies & Modern Langs

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

IAS 360 - Spec Topics World Civilization

This is an interdisciplinary seminar designed to give students an understanding of the modern cultural attitudes, ethical values, and sociopolitical norms of major civilizations in a given geographical area and their relationship to one another. May be repeated for credit with a change in course topic. Required for the B.A. degree in International Area Studies.

Credits: 3.00 to 12.00

College: Arts and Sciences

Department: IST - ALN

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

IAS 385 - Rum, Rice and Revolution: Caribbean History

Course provides a broad, interdisciplinary and socio-historical introduction to the Caribbean. Several themes are covered including empire and the making of the Caribbean; slavery and emancipation; labor formation and race; revolution and resistance; gender oppression and women's experiences; and cultural expressions.

Credits: 3.00

College: Arts and Sciences

Department: Int'l Studies & Modern Langs

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

IAS 390 - Special Topics in International Area Studies

This course explores critical issues and debates in International Area Studies. Topics vary each term. May be repeated three times for credit.

Credits: 3.00

College: Arts and Sciences

Department: Int'l Studies & Modern Langs

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

IAS 399 - Independent Study-IAS

This course provides independent study in a topic related to International Area Studies.

Credits: 1.00 to 12.00

College: Arts and Sciences

Department: Int'l Studies & Modern Langs

Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

International Studies Courses

IST 398 - Intern Rsch Proj/Stud Abr

Credits: .50 to 20.00
College: Arts and Sciences
Department: COAS Admin (Humanities) Hist
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

International Studies Abroad Courses

AS-A 351 - Study Abroad Lit/Civ/Arts

Provides opportunities in literature, business, history, political science, art, psychology, and sociology. Courses offered through Educational Programs Abroad (EPA) in Berlin, Madrid, Paris, Brussels, and London.
Credits: 12.00
College: Arts and Sciences
Department: Int'l Studies & Modern Langs
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

AS-A 352 - Study Abroad-Psyc/Socio

Credits: 20.00
College: Arts and Sciences
Department: Int'l Studies & Modern Langs
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

AS-A 353 - Study Abroad-Hist/P Sci

Credits: 20.00
College: Arts and Sciences
Department: Int'l Studies & Modern Langs
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

AS-A 354 - Study Abroad-Euro Union

Credits: 12.00
College: Arts and Sciences
Department: Int'l Studies & Modern Langs
Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

AS-A 398 - Ind Rsch Proj-Stdy Abroad

Credits: 12.00
College: Arts and Sciences
Department: Int'l Studies & Modern Langs
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

AS-A 399 - Stdy Abrd - Ind Study

Independent study in a term in which the student studies abroad.
Credits: 12.00
College: Arts and Sciences
Department: Int'l Studies & Modern Langs
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

Italian Courses

ITAL 101 - Italian I

Introductory Italian. Includes listening, speaking, reading, and writing.
Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

ITAL 102 - Italian II

Continues ITAL 101. Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: ITAL 101 Minimum Grade: D

ITAL 103 - Italian III

Continues ITAL 102. Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: ITAL 102 Minimum Grade: D

ITAL 201 - Italian IV

Intermediate Italian. Includes grammar review, listening, speaking, and reading. Recommended for students who wish to attain oral competence based on standard usage. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ITAL 103 Minimum Grade: D

ITAL 202 - Italian V

Continues ITAL 201. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ITAL 201 Minimum Grade: D

ITAL 203 - Italian VI: Convrs & Comp

Provides intensive practice in comprehension and written and oral communication. Emphasizes development of writing skills and increased oral competence in everyday situations. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ITAL 202 Minimum Grade: D

ITAL 311 - Intro Italian Stylistics

Provides advanced practice in comprehension and written and oral communication, based primarily on periodicals and contemporary media. Offered as needed. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ITAL 203 Minimum Grade: D

ITAL 312 - Italian Stylistics

Continues ITAL 311. Provides extensive study of the techniques of translation and communication. Offered as needed. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ITAL 311 Minimum Grade: D or ITAL 331 Minimum Grade: D or ITAL 351 Minimum Grade: D

ITAL 313 - Advanced Italian Stylistics

Continues ITAL 312. Provides advanced training in oral and written communication in Italian. Particularly recommended for students who have pre-proficiency status, Italian minors and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ITAL 312 Minimum Grade: D

ITAL 331 - Intro Italian Lit Studies

Advanced Italian. Reading, writing, and extensive conversational practice, based on masterpieces of Italian literature.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ITAL 333 - Adv Italian Literature

Continues ITAL 332. Provides advanced study of Italian literature. Offered as needed.

Credits: 6.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

ITAL 351 - Intro Bus & Prof Italian

Provides intensive oral practice and written work in business, professional, and commercial Italian. Offered as needed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ITAL 203 Minimum Grade: D

ITAL 352 - Business & Prof Italian

Advanced business and professional Italian. Advanced practice in oral and written Italian for business and the professions. Based on advanced texts, periodicals, and technical journals.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ITAL 311 or ITAL 331 or ITAL 351

ITAL 371 - Spec St Ital Civ & Cult

Presents an integrated approach in Italian to the civilization, culture, history, and literature specific to the areas in which the language is spoken, with emphasis on the development and evaluation of cultural values. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ITAL 313 Minimum Grade: D

ITAL 399 - Adv Ind Study Italian

Provides supervised study of special subjects in Italian language and literature. Offered all terms. This is a writing intensive course.

Credits: 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: ITAL 203 Minimum Grade: D

ITAL 411 - Spec St Adv Ital Stylist

Continues ITAL 313. Particularly recommended for students who have proficiency status, Italian minors, and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ITAL 313 Minimum Grade: D

ITAL 431 - Spec St Adv Italian Lit

Continues ITAL 333. Particularly recommended for students who have proficiency status, Italian minors, and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ITAL 333 Minimum Grade: D

ITAL 451 - Sp St Adv Bus/Prof Ital

Continues ITAL 353, with emphasis on the structure and protocols of the European Union. Particularly recommended for students who have

proficiency status, Italian minors, and students interested in graduate study and/or international careers. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ITAL 353 Minimum Grade: D

ITAL 471 - Sp St Ital Civilization

Presents an integrated approach, at the advanced level, to the civilization, culture, history, and literature of a given period specific to the areas in which Italian is spoken, with emphasis on the development and evaluation of cultural values. Offered as needed. This is a writing intensive course.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ITAL 371 Minimum Grade: D

ITAL 480 - Italian Minor Thesis Course

Independent research study on a topic selected by the student. Independent study is supervised by a faculty member and guided by a plan of study. At the end of the course, the student is required to produce a paper and oral defense on the topic of his paper.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

ITAL 499 - Special Topics in Italian

Recommended for Italian minors and for students with proficiency status. Offered all terms. This is a writing intensive course.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Japanese Courses**JAPN 101 - Japanese I**

Introductory Japanese. Includes listening and speaking, with individual audiolingual practice. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

JAPN 102 - Japanese II

Continues JAPN 101. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 101 Minimum Grade: D

JAPN 103 - Japanese III

Continues JAPN 102. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 102 Minimum Grade: D

JAPN 104 - Japanese Writing I

This course focuses on reading and writing in the Japanese language.

The course introduces the basic elements of the Japanese writing systems, which include Katakana, Hiragana and Kanji.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

JAPN 105 - Japanese Writing II

This course focuses on reading and writing in the Japanese language.

The course builds on lessons from Japanese Writing I.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 104 Minimum Grade: D

JAPN 201 - Japanese IV

Intermediate Japanese. Includes listening, speaking, reading, and writing, with individual audiolingual practice. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 103 Minimum Grade: D

JAPN 202 - Japanese V

Continues JAPN 201. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 201 Minimum Grade: D

JAPN 203 - Japanese VI: Conv & Comp

Continues JAPN 202. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 202 Minimum Grade: D

JAPN 204 - Japanese Writing III

This course focuses on reading and writing in the Japanese language.

The course builds on lessons from Japanese Writing I and II.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 105 Minimum Grade: D

JAPN 301 - Japanese VII

Advanced Japanese. Provides reading, writing, and extensive conversational practice. Offered as needed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 203 Minimum Grade: D

JAPN 302 - Japanese VIII

Provides advanced practice in translation, comprehension, and written and oral communication. Offered as needed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 301 Minimum Grade: D

JAPN 303 - Japanese IX

Continues JAPN 302. Offered as needed and with sufficient enrollment.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: JAPN 302 Minimum Grade: D

JAPN 399 - Adv Independ St Japanese

Provides supervised study of special subjects in Japanese language and literature. Offered as needed.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 303 Minimum Grade: D

JAPN 411 - Intro Japanese Stylistics

Fourth year of Japanese. Provides advanced practice in comprehension and written and oral communication. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 303 Minimum Grade: D

JAPN 451 - Intro Bus & Prof Japanese

Fourth year of Japanese. Provides intensive oral practice and written work in business, professional, and commercial Japanese. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: JAPN 303 Minimum Grade: D

JAPN 480 - Japanese Minor Thesis Course

Independent research study on a topic selected by the student. Independent study is supervised by a faculty member and guided by a plan of study. At the end of the course, the student is required to produce a paper and oral defense on the topic of his paper.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Judaic Studies Courses

JUDA 201 - Jewish Literature & Civilization

This course explores the origins of the Jewish people and their core narratives and beliefs that have become the foundations of Jewish civilization and religion, introducing the first five books of the Torah, the Jewish Bible and analyzing its influence. Major events of the Jewish lifecycle and calendar are examined.

Credits: 3.00

College: Arts and Sciences

Department: Judaic Studies

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

JUDA 202 - Jewish Life & Culture in Middle Ages

This course is an introductory survey of the history of the Jewish people, their civilization, religion and contacts with other cultures in medieval times. Topics will include the rise of Christianity and Islam, the Talmud, Jewish mysticism and the growth of Ashkenazic and Sephardic Jewry

Credits: 3.00

College: Arts and Sciences

Department: Judaic Studies

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

JUDA 203 - Modern Jewish History

This course is an exploration of the social, cultural, political and religious forces that have shaped Jewry the world over from the 18th to the 20th centuries. Topics will include Emancipation and Enlightenment, modern religious movements, socialism, Hebrew and Yiddish literature, the Holocaust, Zionism and the state of Israel.

Credits: 3.00

College: Arts and Sciences

Department: Judaic Studies

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Korean Courses

KOR 101 - Korean I

Introductory Korean. Includes listening, speaking and writing, with individual audio-video practice.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

KOR 102 - Korean II

Introductory Korean. Includes listening, speaking and writing, with individual audio-video practice. Builds on Korean 101

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: KOR 101 Minimum Grade: D

KOR 103 - Korean III

Introductory Korean. Includes listening, speaking and writing, with individual audio-video practice. Builds on Korean 102
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: KOR 102 Minimum Grade: D

KOR 201 - Korean IV

Introductory Korean. Includes listening, speaking and writing, with individual audio-video practice. Builds on Korean 103
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: KOR 103 Minimum Grade: D

KOR 202 - Korean V

Introductory Korean. Includes listening, speaking and writing, with individual audio-video practice. Builds on Korean 201
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: KOR 201 Minimum Grade: D

KOR 203 - Korean VI

Introductory Korean. Includes listening, speaking and writing, with individual audio-video practice. Builds on Korean 202.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: KOR 202 Minimum Grade: D

KOR 301 - Korean VII

Advanced Korean. Focuses on reading, writing and conversational practices.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: KOR 203 Minimum Grade: D

KOR 302 - Korean VIII

Advanced Korean. Focuses on reading, writing and conversational practices. Builds on Korean 301.
Credits: 3.00

College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: KOR 301 Minimum Grade: D

KOR 303 - Korean IX

Advanced Korean. Focuses on reading, writing and conversational practices. Builds on Korean 302.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: KOR 302 Minimum Grade: D

Language Courses

LANG 180 - Special Topics in Languages

Provides opportunities in language study commonly not taught in the Modern Language Program. Course offers intensive language training and study of the historical, social and cultural imperatives of the country where the language is spoken. May be repeated for credit.
Credits: .50 to 12.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

Linguistics Courses

LING 101 - Introduction to Linguistics

Introduces major topics in the study of language, including language acquisition, language change, the social use of language, and the analysis of discourse, and teaches basic techniques in linguistic analysis through the use of a wide variety of language data.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

LING 102 - Language and Society

Develops understanding of how language is involved with relations of class, ethnicity, gender and aesthetics in society. The course covers the social investigation of language use, politeness in languages, different varieties of English dialects, slang, and rap, bilingualism and languages in immigrant communities, and language planning.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

Mathematics Courses

MATH 004 - Trigonometry

Required for all students who did not have high school trigonometry and for those who did not pass the placement test in trigonometry. Covers the rectangular coordinate system and distance formula, angular measure and trigonometric functions of a number, variations and graphs of the trigonometric functions, trigonometric identities and equations, inverse trigonometric functions, and solutions of triangles applications. All terms.

Credits:

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

MATH 100 - Fundamentals of Mathematics

Course covers properties of real numbers, algebraic expressions, rational expressions, linear and quadratic functions and graphs. This course is intended to give students the background needed to enroll in MATH 101.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

MATH 101 - Introduction to Analysis I

Covers linear, quadratic, exponential, and logarithmic functions; systems of linear equations; elementary linear programming; matrix algebra; inverse; and mathematics of finance.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: EXAM 080

Pre-Requisites: or MATH 100 Minimum Grade: D

MATH 102 - Introduction to Analysis II

Covers limits, continuity, derivatives, indefinite and definite integrals, and applications.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: EXAM 080

Pre-Requisites: MATH 101 Minimum Grade: D

MATH 107 - Probability and Statistics for Liberal Arts

Probability and statistics in everyday life. The pitfalls of interpreting statistical data. A basic introduction to probability, chance, and gambling. Examples include coin-tossing, dice and roulette wheels.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 100 Minimum Grade: D

MATH 110 - Precalculus

Reviews topics from algebra, geometry, and trigonometry essential for the study of calculus. For students planning to take Calculus I

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

MATH 119 - Mathematical Foundations for Design

This course serves as an introduction to the mathematical concepts and tools most useful to students majoring in the Design Arts. Topics include functions, graphs, plane and fractal geometry, trigonometry, polar coordinates, and elementary topology.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Co-Requisites: EXAM 080

MATH 121 - Calculus I

Functions, limits and continuity, derivatives, transcendental functions, and applications.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: EXAM 080

Pre-Requisites: or MATH 110 Minimum Grade: D

MATH 122 - Calculus II

Definite integrals, Fundamental Theorem of Calculus, integration techniques, applications of integration, numerical integration and differential equations.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: EXAM 080

Pre-Requisites: MATH 121 Minimum Grade: D or TDEC 110 Minimum Grade: D

MATH 123 - Calculus III

Differential equations, Taylor's theorem, sequence and series, convergence, power series.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: EXAM 080

Pre-Requisites: MATH 122 Minimum Grade: D

MATH 180 - Discrete Computational Structures

Covers basic concepts of discrete mathematics that are important to computing, including elementary set theory, recurrence relations, and graph theory.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: MATH 102 Minimum Grade: D or MATH 121 Minimum Grade: D

MATH 181 - Mathematical Analysis I

Covers set theory, coordinate systems and graphs, functions, linear programming (geometric approach), matrices and linear systems, and linear programming (algebraic approach). Required for architecture, business administration, and construction management students. Non-credit for engineering and science students. Fall, Winter.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

MATH 182 - Mathematical Analysis II

Covers counting techniques, probability, statistics, and probability applications. Non-credit for engineering and science students. All terms.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 181 Minimum Grade: D

MATH 183 - Mathematical Analysis III

Covers limits, rates of change, derivatives, applications of differentiation, exponential and logarithmic functions, integrals, techniques of integration, applications of integration. Non-credit for engineering and science students. All terms.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 182 Minimum Grade: D

MATH 200 - Multivariate Calculus

Vectors, curves, partial derivatives, gradient, constrained optimization, coordinate system, multiple integrals, and applications.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Co-Requisites: EXAM 080

Pre-Requisites: MATH 122 Minimum Grade: D or TDEC 112 Minimum Grade: D

MATH 201 - Linear Algebra

Systems of linear equations, matrix algebra, determinants, vector spaces, eigenvalues and eigenvectors, orthogonality, diagonalization, applications.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: EXAM 081

Pre-Requisites: MATH 121 Minimum Grade: D

MATH 205 - Survey of Geometry

Axiomatic approach to geometry: plane geometry, transformational geometrics, and an introduction to classical non-Euclidean geometries. Includes experimental approaches using appropriate software tools.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 201 Minimum Grade: D

MATH 210 - Differential Equations

Covers solution methods and properties for scalar and vector differential equations. Topics include linear and nonlinear equations, numerical methods, partial differential equations, separation of variables, and transform methods.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 200 Minimum Grade: D and MATH 201 Minimum Grade: D

MATH 220 - Introduction to Mathematical Reasoning

A transition course that develops the reasoning skills necessary for later courses. Emphasizes writing and presentation skills. Topics taken from

set theory, logic, induction, relations, functions, and properties of the real number system.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

MATH 221 - Discrete Mathematics

Elementary set theory, combinatorics, elementary number theory, graphs, and special topics chosen from formal language theory, graph algorithms, coding theory, and other applications.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Co-Requisites: EXAM 081

Pre-Requisites: MATH 220 Minimum Grade: D or CS 270 Minimum

Grade: D or (TDEC 114 Minimum Grade: D and ECE 200 Minimum

Grade: D)

MATH 235 - Math Competition Problem Solving Seminar

Problems from math competitions (such as the Putnam exam) are solved by students in this course. This course may be repeated four times for credit as topics vary.

Credits: .50 to 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 200 Minimum Grade: D

MATH 239 - Mathematics for the Life Sciences

A broad survey of mathematical topics that are fundamental for application in the life science: multivariate calculus, differential equations, elementary probability. Emphasis on application.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 102 Minimum Grade: D

MATH 261 - Linear Algebra

Covers matrix arithmetic systems of linear equations, including vector spaces, coordinate systems, determinants, characteristic value problems, and Euclidean spaces, and application to quadratic forms and linear differential equations. Problems from engineering and

science will be solved using applications such as MATLAB during the lab.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not be enrolled in one of the following Major(s):

Mathematics

Pre-Requisites: MATH 189 Minimum Grade: D

MATH 262 - Differential Equations

Covers solutions of first-order equations, undetermined coefficient and variation of parameter methods of solution of higher order linear equations, systems of equations, and Laplace transform. Problems from engineering and science will be solved using applications such as MATLAB during the lab.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 261 Minimum Grade: D

MATH 279 - Special Topics in Mathematics

Covers topics in pure or applied mathematics. Different topics may be considered in different quarters.

Credits: 12.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

MATH 285 - Differential Equations II

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 210 Minimum Grade: D

MATH 286 - Applied Differential Equations

Reviews basic methods, including applications to electric circuits, chemical mixtures, mechanics, and motion problems. Introduces partial differential equations. Spring. Alternate years.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 285 Minimum Grade: D

MATH 290 - Linear Modeling for Engineers

Introduce linear methods for the analysis and solution of engineering problems. Content is taken from gaussian elimination, matrix algebra, inverse, determinants, Cramers Rule, matrix rank, eigenvalues, matrix differential equation least squares, series representation of functions and transforms. Applications are used to illustrate concepts.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Co-Requisites: EXAM 081

Pre-Requisites: TDEC 222 Minimum Grade: D

MATH 291 - Complex and Vector Analysis for Engineers

Complex and Vector Analysis for Engineers. Covers gradient, divergence, and curl; integral theorems curvilinear coordinates, complex differentiation and integration, Cauchy's Theorem, power series, residues and applications.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 200 Minimum Grade: D and PHYS 102 Minimum Grade: D

MATH 300 - Numerical Analysis

The primary goal of this course is to highlight the essential concepts in numerical methods: convergence, stability, and efficiency. A particular emphasis is placed on implementation. The main topics include numerical integration, optimization, the FFT and spectral methods, boundary element method and an introduction to the finite element method.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 200 Minimum Grade: D and MATH 201 Minimum Grade: D

MATH 301 - Numerical Analysis II

A continuation of MATH 300. This course focuses on time dependent problems. It includes numerical solution of ordinary differential

equation, the heat and wave equations, and moving interfaces. The discussed techniques include implicit schemes or ODEs, finite differences, spectral methods and the level set method.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 300 Minimum Grade: D

MATH 305 - Introduction to Optimization Theory

Provides a broad survey of mathematical techniques in optimization theory used in operations research and management science. Includes topics selected from the following categories: linear programming, integer programming, network flows, and nonlinear programming.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 201 Minimum Grade: D

MATH 310 - Probability and Statistics

Not open to mathematics or computer science majors. Covers probability, probability distribution of discrete and continuous random variables, moment-generating functions, distribution of sample statistics, estimation and statistical tests, tests for goodness of fit, and regression analysis.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not be enrolled in one of the following Major(s):

Computer Science

Mathematics

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 200 Minimum Grade: D or TDEC 114 Minimum Grade: D

MATH 311 - Probability and Statistics I

Covers sample spaces, axioms and theorems of elementary probability, random variables, distributions and expectation, mean, variance, moment-generating functions, Chebyshev's inequality, law of large numbers, and central limit theorem.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Co-Requisites: EXAM 081

Pre-Requisites: MATH 200 Minimum Grade: D

MATH 312 - Probability and Statistics II

Covers estimation, consistency, unbiasedness, maximum likelihood, confidence intervals, hypothesis testing, Type I and Type II errors, Neyman Pearson lemma, likelihood ratio tests, and tests for means and variances.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Co-Requisites: EXAM 081

Pre-Requisites: MATH 311 Minimum Grade: D

MATH 316 - Mathematical Applications of Symbolic Software

Mathematical Applications of Symbolic Software. Topics from calculus are investigated via complex problems requiring the use of symbolic mathematical software, primarily Maple. Numerical, graphical, and algebraic approaches are integrated. Limits, derivatives, root-finding, integration, and infinite series are explored in this context.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 121 Minimum Grade: D and MATH 122 Minimum Grade: D and MATH 123 Minimum Grade: D and MATH 200 Minimum Grade: D

MATH 318 - Mathematical Applications of Statistical Software

Mathematical Applications of Statistical Software. Applications of modern statistical technologies and software, such as SAS, are used to describe and analyze data. Some topics covered are data management, collecting data, inferences for single and multiple population means, proportions count data, regression, correlation and nonparametric statistical methods. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 310 Minimum Grade: D or (MATH 311 Minimum Grade: D and MATH 312 Minimum Grade: D)

MATH 319 - Techniques of Data Analysis

An applied course that considers the acquisition, analysis, visualization, and presentation of data. Emphasizes computation.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

Pre-Requisites: (MATH 310 Minimum Grade: D or MATH 312 Minimum Grade: D or STAT 201 Minimum Grade: D) and MATH 318 Minimum Grade: D

MATH 320 - Actuarial Mathematics

Covers probability in a risk management context. Univariate probability distribution including binomial, negative binomial, Poisson, uniform, exponential, normal, lognormal, Pareto, and Weibull distributions. Multivariate distributions including conditional and marginal probability distributions, joint moment generating functions, probability and moments for linear combinations of independent random variables and related topics.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 311 Minimum Grade: D

MATH 321 - Vector Calculus

Covers vector algebra; gradient, divergence, curl, and curvilinear coordinates; Green's theorem, divergence theorem, and Stokes' theorem; and applications.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 200 Minimum Grade: D and MATH 201 Minimum Grade: D

MATH 322 - Complex Variables

Introduces functions of one complex variable. Topics include the basic properties of analytic functions, power series, integration, residues and poles, and conformal mapping with applications.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 210 Minimum Grade: D

MATH 323 - Partial Differential Equations

Covers basic concepts and solution techniques for the standard partial differential equations of mathematical physics.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 200 Minimum Grade: D and MATH 201 Minimum Grade: D and MATH 210 Minimum Grade: D

MATH 331 - Abstract Algebra I

Covers theory of groups, homomorphism and isomorphism, theory of rings, integral domains, ideals, unique factorization, and theory of fields.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 220 Minimum Grade: D or CS 270 Minimum Grade: D

MATH 332 - Abstract Algebra II

Covers further topics in abstract algebra, including canonical decomposition of linear transformation, bilinear forms, multilinear algebra and determinants, finite fields, and selected short subjects.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 331 Minimum Grade: D

MATH 382 - Advanced Calculus

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

MATH 387 - Linear Algebra II

Covers linear transformations, including kernel and range; eigenvalues and eigenvectors; diagonalization of symmetric matrices; and application to differential equations, quadratic forms, and Markov chains. Fall.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 261 Minimum Grade: D

MATH 401 - Elements of Modern Analysis I

Covers the real number system, elementary topology, limits, infinite series, continuity, derivatives, and the Riemann integral.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 200 Minimum Grade: D and MATH 201 Minimum Grade: D and (MATH 220 Minimum Grade: D or CS 270 Minimum Grade: D)

MATH 402 - Elements of Modern Analysis II

Covers continuation of integration theory, improper integrals, sequences and series, power series, and uniform convergence.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 401 Minimum Grade: D

MATH 410 - Scientific Data Analysis I

Fundamental principles and applications of statistics for scientific data analysis. Topics include data exploration, principles of probability distributions, Central Limit Theorem, hypothesis testing, z, t and F tests, one-way analysis of variance, linear regression, and contingency table analysis. Programming statistical applications in R will be included.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 122 Minimum Grade: D or MATH 239 Minimum Grade: D

MATH 411 - Scientific Data Analysis II

Scientific data analysis and experimental design. Topics include multiple regression and model selection, nonlinear and logistic regression, analysis of covariance, multi-factor analysis of variance, nested, factorial and repeated measures experimental designs, random effects, and introduction to bootstrap methods and randomization tests. Programming statistical applications in R will be included.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 410 Minimum Grade: C-

MATH 422 - Introduction to Topology

Covers topological space, metric spaces, function, continuity, compactness, and connectedness.

Credits: 4.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 200 Minimum Grade: D

MATH 449 - Mathematical Finance

This course is an introduction to the mathematics of finance. The main topics include: fixed income mathematics (duration, convexity, compounding conventions, immunization of bond portfolios, yield curve stripping), foundations of the arbitrage theory (pricing of futures and forwards, swaps, put/call parity) and introduction to stochastic derivative pricing (Black-Scholes and beyond).

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: MATH 311 Minimum Grade: D

MATH 450 - Introduction to Graph Theory

Introduction to Graph Theory. Topics covered include paths and cycles, Eulerian graphs, Hamiltonian graphs, trees, matching, coloring, planarity, and some additional topics in special graphs such as interval graphs.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 201 Minimum Grade: D and MATH 221 Minimum Grade: D

MATH 475 - Cryptography

Classic cryptosystems, elementary number theory, RSA, ElGamal, discrete logarithms, digital signatures, plus a special topic selected from elliptic curves, information theory, and quantum cryptography.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: MATH 201 Minimum Grade: D and MATH 311 Minimum Grade: D

MATH 480 - Spec Topics in Mathematics

Covers topics in Mathematics of interest to students or faculty. Different topics may be considered during different quarters.

Credits: 12.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

MATH 483 - Discrete Event Simulation

Covers system simulation, Monte Carlo methods, discrete event modeling techniques, queuing models, programming considerations, statistical definitions and concepts, random number generation, output analysis, and design of computer experiments. Spring.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 385 Minimum Grade: D

MATH 489 - Tensor Analysis

Covers tensor algebra, including coordinate transformations, fundamental quadratic form, covariant and contravariant tensors, Riemannian metric, and applications. Elective. Spring. Alternate years.

Credits: 3.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 381 Minimum Grade: D

MATH 497 - Ind Study In Math

Provides supervised study of selected topics in mathematics.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

MATH 498 - Special Topics

Credits: 12.00

College: Arts and Sciences

Department: Mathematics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

MATH 499 - Independent Study in Math

Credits: 6.00
College: Arts and Sciences
Department: Mathematics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

Nutrition & Food Science Courses

NFS 100 - Nutrition, Foods, and Health

Covers the six nutrient categories and how they function in the body. Includes nutritional implications of major diseases, food safety issues, and current food and nutrition controversies with an emphasis on personal health.

Credits: 2.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

NFS 101 - Introduction to Nutrition & Food

Provides basic understanding of required nutrients and how they are used in the body. Students complete a computerized nutrient analysis and apply the science of nutrition and food to food choices to improve their personal health.

Credits: 3.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

NFS 111 - Introduction to Dietetics

A survey of the dietetics field with emphasis on the role of the Registered Dietetics in practice. Discussion of current professional issues including evidence-based practice and the nutrition care process.

Credits: 2.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
Must be enrolled in one of the following Program Level(s):
Graduate Quarter
Must be enrolled in one of the following Major(s):
Dietetics
Human Nutrition

NFS 200 - Nutrition I: Principles of Nutrition

Covers principles of human nutrition, including energy metabolism. Covers physiological mechanisms and food sources of carbohydrates, lipids, proteins, vitamins, and minerals in relation to optimal human health.

Credits: 4.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Must be enrolled in one of the following Major(s):

Nursing
Pre-Requisites: CHEM 103 Minimum Grade: D

NFS 203 - Nutrition II: Nutrition in the Lifecycle

Covers nutrition in human life cycles with emphasis on prenatal, maternal, infant, childhood, adolescent, adulthood and later maturity. Also covers nutrient requirements and typical health and disease problems of each stage of the life span. Laboratory activities provide application of nutrition topics in preventive health activities related to the life span, with emphasis on diet-evaluation techniques.

Credits: 4.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: NFS 200 Minimum Grade: D or BIO 121 Minimum Grade: D or NFS 101 Minimum Grade: D or NFS 230 Minimum Grade: D

NFS 215 - Nutritional Chemistry

Covers the chemistry of carbohydrates, lipids, proteins, and nucleic acids and their behavior in the body's major metabolic mechanisms, including the role of vitamins and minerals in enzyme systems critical to normal human nutrient metabolism.

Credits: 3.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman
Pre-Requisites: CHEM 103 Minimum Grade: D

NFS 216 - Nutrition and the Schoolchild

A course designed for future elementary school teachers to increase their knowledge of childhood nutrition as it relates to health promotion, health maintenance, and the prevention and treatment of nutritionally relevant health abnormalities in elementary school students. The scientific basis of nutrition and principles of education are emphasized.

Credits: 3.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: BIO 102 Minimum Grade: D

NFS 217 - Nutrient Quality & Composition

Applications of principles of nutritional chemistry involving macronutrients and micronutrients.

Credits: 1.00
College: Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Co-Requisites: NFS 215

Pre-Requisites: CHEM 103 Minimum Grade: D

NFS 220 - Normal & Lifespan Nutrition

Builds on basic nutrition principles to include nutrient metabolism and chemical and biological aspects of nutrition. Addresses special nutrient needs of people through the life cycle.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Graduate Quarter

Must be enrolled in one of the following Major(s):

Dietetics

Human Nutrition

NFS 230 - Intermediate Nutrition

The role of nutrients in body structure and function. Factors involved in the availability, digestion, absorption, and utilization of nutrients. Identification of the normal nutritional needs of individuals, and sources of nutrients. The interpretation of current research in nutritional studies.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not be enrolled in one of the following Major(s):

Nursing

Pre-Requisites: BIO 121 Minimum Grade: D or NFS 101 Minimum Grade: D

NFS 265 - Professional Issues in Nutrition and Foods

Introduces professional issues in dietetics, food science, and nutrition science. Covers issues affecting current and future practice, and resources available to professionals in these fields.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: BIO 121 Minimum Grade: D or BIO 115 Minimum Grade: D

NFS 310 - Nutrition and Sports

After reviewing the fundamental processes of nutrition and human development, the course applies principles of nutrition to athletic conditioning, performance, and rehabilitation from sports-related injuries. Identifies evidence based recommendations for nutritional needs of today's athlete and explores the validity of sport diet fads.

Development cycle of the recreational, amateur, and competitive athlete.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must have the following Classification(s):

Senior

NFS 315 - Nutrition in Chronic Disease

This course provides a basic understanding of nutrition therapy and its role in the prevention and treatment of medical conditions.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: NFS 200 Minimum Grade: D or NFS 230 Minimum Grade: D or BIO 121 Minimum Grade: D or NFS 100 Minimum Grade: D or NFS 101 Minimum Grade: D

NFS 320 - Pediatric Nutrition

This course provides an overview of pediatric nutrition assessment, as well as nutrition therapy and its role in the prevention and treatment of medical conditions found in the newborn through adolescent.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: NFS 200 Minimum Grade: D or NFS 230 Minimum Grade: D or BIO 121 Minimum Grade: D or NFS 100 Minimum Grade: D or NFS 101 Minimum Grade: D

NFS 325 - Nutrition & Exercise Physiology

An advanced level course covering nutrient needs to maximize exercise performance. Energy metabolism, with emphasis on macronutrient and micronutrient needs during different levels of exercise will be emphasized. Benefits of exercise in the prevention and treatment of chronic diseases and the safety of ergogenic aids will be discussed.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: NFS 100 Minimum Grade: D or NFS 101 Minimum Grade: D or BIO 121 Minimum Grade: D or NFS 200 Minimum Grade: D or NFS 230 Minimum Grade: D

NFS 345 - Foods and Nutrition of World Cultures

Provides an understanding of the diversity of cultural food choices and their nutritional implications. Includes an emphasis on cultural groups in the United States and methods to provide nutrition education to culturally diverse groups. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: COM 345 Minimum Grade: D

NFS 365 - Nutrition Laboratory: Food and Nutrient Analysis

Provides quantitative study of metabolism and observable effects of nutrient factors (vitamins, minerals, fats, carbohydrates, and proteins), using foods. This is a writing intensive course.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: NFS 215 Minimum Grade: D or BIO 311 Minimum Grade: D

NFS 370 - Foodservice Systems Management

In-depth analysis of food purchasing, financial management of foodservices, cost controls, marketing in foodservice, equipment layout and design, and management/leadership theories and applications.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: HRM 215 Minimum Grade: D and HRMT 323 Minimum Grade: D

NFS 371 - Institutional Organization and Administration

Covers organization, administration, and application of managerial techniques in food-service systems; personnel training; job and person analysis; and morale and motivation. Includes field trips to food-service systems.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

NFS 391 - Community Nutrition

Studies nutrition services provided by national, state, and local governments and private organizations. Discusses nutritional needs-assessment techniques and program-development methods. Field trips

will be made to community nutrition programs. This is a writing intensive course.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Junior

Pre-Junior

Sophomore

Pre-Requisites: NFS 203 Minimum Grade: D and PSY 320 Minimum Grade: D

NFS 415 - Advanced Nutrition I: Macronutrition

Covers biochemical and physiological topics of macronutrient metabolism, with emphasis on ingestion, digestion, absorption, and excretion of carbohydrate, protein, and lipid.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (NFS 200 Minimum Grade: D or NFS 230 Minimum Grade: D) and NFS 215 Minimum Grade: D and NFS 217 Minimum Grade: D and BIO 154 Minimum Grade: D

NFS 416 - Advanced Nutrition II: Micronutrients

Provides in-depth study of vitamin and mineral absorption, metabolism, and degradation, with an emphasis on human health requirements and a thorough understanding of nutrient and dietary requirements.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: NFS 415 Minimum Grade: D

NFS 431 - Nutrition Counseling

Emphasizes nutrition-counseling techniques for use with individuals and small groups. Includes development of nutrition education materials as well as verbal and non-verbal communication skills.

Credits: 4.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Nutrition and Food Science

Must have the following Classification(s):

Senior

Pre-Requisites: NFS 443 Minimum Grade: D and PSY 342 Minimum Grade: D

NFS 443 - Medical Nutrition Therapy I

First of a three-course sequence examining the interrelationships of physiology, biochemistry, and nutrition as related to medical nutrition therapy. Emphasizes nutritional assessment and the role of nutrition in preventing and treating diseases/disorders: gastrointestinal diseases, diabetes, obesity, and cardiovascular disease.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Junior

Pre-Junior

Sophomore

Pre-Requisites: NFS 416 Minimum Grade: D

NFS 444 - Medical Nutrition Therapy II

Second of a three-course sequence examining the interrelationships of physiology, biochemistry, and nutrition as related to medical nutrition therapy. Emphasizes nutrition assessment and the role of nutrition in preventing and treating disease/disorders; disease of the liver, pancreas, and gallbladder; pulmonary disease; renal disease; cancer; HIV/AIDS; allergies, pediatric disease; and metabolic disturbances.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Junior

Pre-Junior

Sophomore

Pre-Requisites: NFS 443 Minimum Grade: D

NFS 445 - Medical Nutrition Therapy III

Third of a three-course sequence examining the interrelationships of physiology, biochemistry, and nutrition as related to severe/stressful conditions which require enteral or parenteral nutrition or other advanced medical nutrition therapies.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Junior

Pre-Junior

Sophomore

Pre-Requisites: NFS 444 Minimum Grade: D

NFS 446 - Perspectives World Nutrit

Examines world nutrition and food supply, including the nutritional status of various peoples, deficiency diseases, problems of food distribution, and other timely subjects.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

NFS 475 - Advanced Seminar in the Dietetics Profession

Reviews, evaluates, and synthesizes contemporary professional issues in dietetics.

Credits: 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Junior

Pre-Junior

Sophomore

Pre-Requisites: (NFS 154 Minimum Grade: D and NFS 203 Minimum

Grade: D and NFS 400 Minimum Grade: D) or (NFS 150 Minimum

Grade: D and NFS 152 Minimum Grade: D and NFS 203 Minimum

Grade: D and NFS 400 Minimum Grade: D)

NFS 480 - Spec Studies Nutri & Food

Covers selected topics of interest. May be repeated for credit. This is a writing intensive course.

Credits: 12.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

NFS 494 - Senior Project I

First in a series of capstone courses in which student carry out the research process. In NFS 494, students work cooperatively to identify an applied, discipline oriented problem and then develop research hypotheses and a written research proposal in response to that problem.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Must be enrolled in one of the following Major(s):

Nutrition and Food Science

Must have the following Classification(s):
Senior

NFS 495 - Senior Project II

Second in a series of capstone course in which students carry out the research process. In NFS 495, students work cooperatively to carry out the research objectives according to the research proposal developed in NFS 494.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: NFS 494 Minimum Grade: D

NFS 496 - Senior Project III

Third in a series of capstone course in which students carry out the research process. In NFS 496, students work cooperatively to document the finding of their research in NFS 495. Students make oral and poster presentations as well as produce a written report of their research results.

Credits: 2.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: NFS 495 Minimum Grade: D

NFS 497 - Research

Provides individual research in nutrition under faculty supervision.

Credits: 1.00 to 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

NFS 498 - Independent Study

Provides individual study or research in nutrition under faculty supervision.

Credits: 1.00 to 3.00

College: Arts and Sciences

Department: Bioscience & Biotechnology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Philosophy Courses

PHIL 101 - Introduction to Western Philosophy

Introduces the main methods and aims of Western Philosophy, involving the study of problems central to metaphysics, theory of knowledge, and ethics. Offered every quarter.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHIL 102 - Introduction to Eastern Philosophy

Introduction to the main topics of study in Buddhist, Hindu and other systems of Eastern thought.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHIL 105 - Critical Reasoning

Introduces and develops the skills involved in reasoning effectively about experience, and being able to distinguish strong arguments from weak ones.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHIL 107 - Philosophy and Knowledge Organization

This course imparts knowledge and skills associated with organizing concepts. The context for the course is the history of knowledge organization, viewed philosophically, with special emphasis on the Platonic, Cartesian, Kantian, Comtean and Digital paradigms. Students will learn to recognize the classical principles of knowledge organization and how to apply them using a "logic of concepts." Students will also come to understand how and why knowledge is organized the way it is in the modern university.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHIL 111 - Propositional (zero-order) Logic

An introduction to the fundamental concepts of symbolic logic: argument, validity, soundness, provability, completeness, consistency, decidability, entailment, logical equivalence, logical truth, logical contradiction. Covers truth-functional connectives, rules of formation and translation, and rules of inference. Proof techniques studies include natural deduction, truth-tables, and/or truth-trees.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHIL 201 - Hist Of Western Philos I

Studies central works that have shaped Western Philosophy and culture from Classical times through the Renaissance and Reformation. Offered fall and spring quarters.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 202 - Hist Of Western Philos II

Studies central works that have shaped Western Philosophy and culture from the Renaissance through the late Nineteenth Century.. Offered winter and summer quarters.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 203 - Hist Of Western Philos III

Studies central works that have had important impacts upon Western Philosophy and culture from the Twentieth Century through the present. Offered Fall and Spring Quarters.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 207 - Predicate (first-order) Logic

Concentrates on syntax and semantics of quantification. Formation principles include A, E, I, and O statements (and square of opposition), domain of discourse, quantifier scope, multiple quantification, relations, and identity. Proof mechanics covered include natural deduction, instantiation, semantic tableau, and possible-world counterexamples. Also explored are the completeness, consistency, and decidability of first-order systems.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Pre-Requisites: PHIL 111 Minimum Grade: D

PHIL 210 - Philosophy of Sport

Studies theories about philosophical issues arising in sport, in areas including its personal, social, aesthetic, and political dimensions.

Offered fall and spring; may alternate with PHIL 325 Ethics in Sports Management.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

PHIL 211 - Metaphysics

Studies theories about the nature of reality and philosophical issues such as the nature of time, mind, personal identity, and free will.

Offered winter and summer quarters.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHIL 101 Minimum Grade: D

PHIL 221 - Epistemology

Studies theories about knowledge that bear upon philosophical issues concerned with the nature and status of knowledge claims as expressed in concepts like belief, truth, and justification. Offered in fall and spring quarter.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHIL 101 Minimum Grade: D

PHIL 231 - Aesthetics

Studies theories about art and the nature of beauty that bear on philosophical issues concerned with artistic production, performance, and perception, such as arise in activities like painting, sculpture, film literature, music, and dance. Offered in fall, winter and spring quarters; may alternate with PHIL 361 Philosophy of Science.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 241 - Social & Political Philos

Studies theories about human social and political life that bear on philosophical issues such as the nature and scope of justice, the legitimacy of states, and the relationship between democracy, civil rights, and civil disobedience.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHIL 101 Minimum Grade: D

PHIL 251 - Ethics

Studies theories about human conduct which bear upon the rightness and wrongness of actions, and the goodness and badness of ends, including the nature, scope, purposes, and varieties of moral and ethical theories. Offered every quarter.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

PHIL 255 - Philosophy of Sex & Love

This course investigates sexual activity and desire, and the morality of sexual behavior. It also examines various types of love and their links with sexuality. Figures studied include Plato, Aristotle, Augustine, Aquinas, Kant, Kierkegaard, Freud and Foucault. Topics include marriage, prostitution, pornography, homosexuality, perversion, rape, intentionality, irreplaceability, unconditionality, reciprocity, and exclusivity.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHIL 265 - Public Health Ethics

Topics include human rights, the balancing of individual rights with public interests, managing disasters, epidemics, risky behaviors, and the meaning of health from a population standpoint.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 301 - Business Ethics

Study of such moral issues as truth-telling, puffery, and lying in business communications; employer-employee relations; obligations to

customers; obligations to foreign populations; and government contracts. Offered fall and spring quarters.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 305 - Communication Ethics

Ethical analysis of current laws and legislation aimed at regulating speech in the context of mass communications (radio, television and film). Offered winter and summer quarters.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 311 - Computer Ethics

Ethical analyses of current laws and pending legislation aimed at regulating computer use as well as Internet practices and content.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 315 - Engineering Ethics

Provides critical reflection on the nature of engineering and technology and on the ethical obligations and responsibilities unique to the engineering profession. Topics include the social responsibilities of engineering, the nature of professionalism, professional autonomy, whistleblowing, conflicts of interest, organizational (dis)obedience, the ethics of risk assessment, and the place and purpose of engineering codes of ethics.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following College(s)/School(s):

Bennett S. LeBow Coll. of Bus.

College of Engineering

May not be enrolled in one of the following Major(s):

Business Administration

Economics

May not have the following Classification(s):

Freshman

Sophomore

PHIL 319 - Ethical Issues in Reproduction

Topics include contraception, abortion, assisted reproductive technologies, parenthood, and balancing fetal and maternal interests.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HSAD 210 Minimum Grade: D or PHIL 251 Minimum

Grade: D

PHIL 320 - Ethics in Health-Care Research

Topics include, but are not limited to, responsible authorship and reporting, use of human subjects, use of animals, defining and handling scientific misconduct, confidentiality, and conflict of interest.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HSAD 210 Minimum Grade: D or PHIL 251 Minimum

Grade: D

PHIL 321 - Biomedical Ethics

Studies moral issues related to health and disease, patients' rights and professional responsibilities, informed consent, abortion, euthanasia, and biomedical research.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 322 - Ethics of Human Enhancement

Discussion of developments in health-care with the potential not only to treat disease, but also to improve human performance and cosmetically change the human body, thereby creating ethical considerations about the nature of health and disease and the proper scope and goals of health care.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HSAD 210 Minimum Grade: D or PHIL 251 Minimum

Grade: D

PHIL 323 - Organizational Ethics

This course focuses on the application of ethical theories and principles to organizational systems and decision-making. Emphasis will be placed on how ethical principles affect and are applied to organizational policy-making, leadership behavior, systems of communication, technology use, and other systems of organization.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must have the following Classification(s):

Junior

Pre-Junior

Senior

PHIL 325 - Ethics in Sports Management

An introduction to various ethical issues in sports and sports management, such as leadership and coaching; gender and racial equity in sports; fair play and cheating; violence and competition; commercialization of sports; the relation of sports to cultural value systems; ethics of technology and sports performance. Offered fall and spring; may alternate with PHIL 210 Philosophy of Sport.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

PHIL 330 - Ethical Issues in Criminal Justice

Studies ethical issues in the policies and practices of criminal justice, and theories that bear upon issues such as the relationship of law to justice, the definition of crime, the use of deception and coercion in law enforcement, and the purposes and varieties of criminal punishment. Offered fall and spring quarters.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 335 - Global Ethical Issues

Offers an introduction to the ethical tensions of our age, globally construed. May address such issues as terrorism, genocide, religious exclusivism, nuclear proliferation, the regulation of the Internet, as well as culturally competing notions of right and wrong, and good and bad. Offered winter and summer quarters; may alternate with PHIL 341 Philosophy of the Environment.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 341 - Philosophy of the Environment

Studies ecological issues from a philosophical standpoint stressing the implications of scientific and technological developments as they affect people's lives and choices. Offered winter and summer quarters. May alternate with PHIL 335 Global Ethical Issues.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHIL 101 Minimum Grade: D

PHIL 351 - Philosophy of Technology

Studies technology from a philosophical standpoint stressing its role in shaping human existence and values, considering issues such as the control and distribution of information, housing and city planning, automation, and the uses of technology in medicine. Offering in winter and summer quarters.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHIL 101 Minimum Grade: D

PHIL 355 - Philosophy of Medicine

Examines the ideas of medicine, disease, and health from a philosophical perspective. Examines such concepts as gender, mental-illness, mind-body unity, aging and physical perfection as derived from both Eastern and Western traditions. Current health policy alternative treatment practices are also discussed.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: PHIL 101 Minimum Grade: D or PHIL 102 Minimum Grade: D

PHIL 361 - Philosophy of Science

Studies natural scientific theory-construction and investigative methods from a philosophical standpoint, considering issues such as the nature and scope of experimental method, and the history and justification of theory change. Offered fall, winter and spring quarters. May alternate with PHIL 231 Aesthetics.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: PHIL 101 Minimum Grade: D

PHIL 371 - Philosophy of Social Sciences

Studies social scientific theory-construction and investigative methods from a philosophical standpoint, considering issues such as the distinction between explanation and interpretation, and the history and justification of theory change. Offerings winter, spring and summer quarters. May alternate with PHIL 391 Philosophy of Religion.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: PHIL 101 Minimum Grade: D

PHIL 381 - Philosophy in Literature

Studies philosophical issues such as the concept of the self, the nature and course of evil, the nature and scope of free will, and ideals in living as they appear in significant works of literature. Offered in winter and summer quarters.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHIL 385 - Philosophy of Law

This course addresses philosophical issues in the law. Topics include the meaning of "law," the nature and logic of legal (in contrast to moral) concepts and principles, and competing conceptions of law (Natural Law, Positivism, Realism, Rights-Based, etc.). Authors may include Plato, Mill, Rawls, Hart, Dworkin and others.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: PHIL 101 Minimum Grade: D or PHIL 102 Minimum Grade: D

PHIL 391 - Philosophy of Religion

Studies various aspects of religious belief and experience from a philosophical standpoint, considering issues such as the definition and existence of God, the nature and course of evil, and the relationship between faith and reason in a religious life. Offered in winter, spring and summer quarters. May alternate with PHIL 371 Philosophy of the Social Sciences.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: PHIL 101 Minimum Grade: D

PHIL 395 - Advanced Topics in Logic

Specialized topics, from among: self-reference paradoxes, set theory, axiomatization of arithmetic, computability, Church-Turing thesis, Gödel's theorem, minds and machines, Turing test, artificial intelligence, definitions of truth, models and satisfaction, analyticity, syntax/semantics, ontological commitment, intention/extension, reference justifying deduction, nominalism/realism, multi-valued logic, intuitionism, modal logic, doxastic logic, and logic of moral discourse.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: PHIL 111 Minimum Grade: D and PHIL 207 Minimum Grade: D

PHIL 399 - Independ Project In Philosophy

Provides directed reading and writing in philosophy. May be repeated twice for credit. Permission of Program Directed required. Offered every quarter.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Junior

Sophomore

PHIL 421 - Seminar in Ancient Philosophy

Advanced study and discussion of the works of the leading philosophers and philosophical schools of Western antiquity. Reading and Writing intensive.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Junior

Sophomore

Pre-Requisites: PHIL 211 Minimum Grade: D and PHIL 221 Minimum Grade: D

PHIL 425 - Seminar in Medieval Philosophy

Advanced study and discussion of the works of the leading philosophers and philosophical schools of the Medieval period. Reading and Writing intensive.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Junior

Sophomore

Pre-Requisites: PHIL 211 Minimum Grade: D and PHIL 221 Minimum Grade: D

PHIL 431 - Seminar in Rationalism & Empiricism

Advanced study and discussion of the works of the leading philosophers and philosophical schools of the Modern period (circa. 1500 A.D. to 1900 A.D.) on the European Continent and British Isles. Reading and Writing intensive.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Junior

Sophomore

Pre-Requisites: PHIL 211 Minimum Grade: D and PHIL 221 Minimum Grade: D

PHIL 461 - Seminar in Contemporary Philosophy

Advanced study and discussion of the works by leading philosophers from 1900 to present. Reading and Writing intensive.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Junior

Sophomore

Pre-Requisites: PHIL 211 Minimum Grade: D and PHIL 221 Minimum Grade: D

PHIL 465 - Seminar in American Philosophy

Advanced study and discussion of works by leading American philosophers, including Peirce, James, Mead, Royce, C.I. Lewis, Quine, Davidson, Rorty and others. Reading and Writing intensive.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Junior

Sophomore

Pre-Requisites: PHIL 211 Minimum Grade: D and PHIL 221 Minimum

Grade: D

PHIL 475 - Special Problems in Philosophy

Topic for each term to be announced. May be repeated for credit.

Permission of Program Directed required.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

PHIL 481 - Seminar in a Philosophical School

Development of doctrines, theories, arguments and problems associated with one or more philosophical schools (or movements).

Schools (or movements) may include Pythagoreanism, Platonism, Epicureanism, or recently, Positivism, Pragmatism, and Existentialism.

This course is Reading and Writing Intensive.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Junior

Sophomore

Pre-Requisites: PHIL 211 Minimum Grade: D and PHIL 221 Minimum

Grade: D

PHIL 485 - Seminar in a Major Philosopher

Study of the works of a major philosopher such as Plato, Aristotle, Descartes, Locke, Hume, Kant, etc. Reading and Writing Intensive.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

Freshman

Pre-Junior

Sophomore

Pre-Requisites: PHIL 221 Minimum Grade: D and PHIL 211 Minimum

Grade: D

PHIL 497 - Senior Essay I: Research & Thesis

Individual supervision. Selection of research topic for the senior argumentative essay; collection and analysis of hard-copy and electronic research material; construction of bibliography. Initial thesis formulation and drafting of argument sketch. Writing Intensive.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Philosophy

Must have the following Classification(s):

Senior

PHIL 498 - Senior Essay II: Argument Construction

Supervised construction of the main and supporting arguments of the senior essay involving drafting and re-drafting of the prose statement. Writing Intensive.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Philosophy

Must have the following Classification(s):

Senior

Pre-Requisites: PHIL 497 Minimum Grade: D

PHIL 499 - Senior Essay III: Defense

Individual Supervision. Defense of the senior essay thesis before the philosophy faculty and fellow senior philosophy majors. Written replies to main criticisms as determined by the faculty supervisor. Final submission of senior essay. Writing Intensive.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Philosophy

Must have the following Classification(s):

Senior

Pre-Requisites: PHIL 498 Minimum Grade: D

Physics Courses

PHYS 100 - Preparation for Engineering Studies

This is a basic mathematics foundational course to prepare the students for the beginning sequence of Engineering Physics. Topics include: simultaneous equations, fundamentals of plane and solid geometry, use of trigonometric functions and vectors and translational kinematics.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not be enrolled in one of the following College(s)/School(s):

May not have the following Classification(s):

PHYS 101 - Fundamentals of Physics I

First of a four course sequence teaching fundamental physics to engineering and science majors. Topics include: description of motion, inertial and non-inertial frames, special relativity, Newton's Laws, translational and rotational equilibrium, one- and two-dimensional motion, fundamental forces, inverse square laws, Gauss' Law, Bohr's quantization, rotational dynamics, potential energy, black holes, determinism and chaos.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Co-Requisites: EXAM 080

Pre-Requisites: MATH 121 Minimum Grade: D or PHYS 100 Minimum Grade: D

PHYS 102 - Fundamentals of Physics II

Second of a four course sequence teaching fundamental physics to engineering and science majors. Topics include: electrostatics, capacitors, charges in motion, insulators, semiconductors, conductors, superconductors, voltage and current measurements, magnetism, electromagnetic induction, magnetic materials, quantum dots, magnetic resonance phenomenon.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Co-Requisites: EXAM 080

Pre-Requisites: PHYS 101 Minimum Grade: D

PHYS 103 - General Physics I

Algebra-based course that covers force, motion, work, energy properties of matter, and wave motion and sound propagation.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHYS 104 - General Physics II

Algebra-based course that covers electricity and applications, magnetism, and optics.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: PHYS 103 Minimum Grade: D

PHYS 105 - Computational Physics I

Introduces computational physics. Covers analytical and numerical solutions of equations governing the behavior of physical systems. Includes the use of Maple and simple FORTRAN/C/C++ programming methods to solve selected problems. Introduces UNIX, X-windows, programming languages, and visualization and data analysis tools for problems in computational physics. Introduces elementary programming concepts as needed.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: (PHYS 111 Minimum Grade: D or PHYS 113 Minimum Grade: D) and CS 171 Minimum Grade: D

PHYS 106 - The Physics of High Fidelity

Applies physical principles to understanding how hi-fi systems work. Includes consumer education in selecting components. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHYS 113 - Contemporary Physics I

Part I in an introductory physics sequence for majors. This course combines the traditional lecture/lab format with real-time numerical simulations designed by the students. Topics include: the fundamental forces, Newton's laws, the atomic nature of matter, work and energy, light, friction, and atomic nuclei.

Credits: 5.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: MATH 121

PHYS 114 - Contemporary Physics II

Part II in an introductory sequence for majors. This course combines the traditional lecture/lab format with real-time numerical simulations designed by the students. Topics include: angular momentum, entropy,

gas dynamics, electric fields, electricity and matter, and electric potential.

Credits: 5.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: MATH 122

Pre-Requisites: PHYS 113 Minimum Grade: D

PHYS 115 - Contemporary Physics III

Part III in an introductory sequence for majors. This course combines the traditional lecture/lab format with real-time numerical simulation designed by the students. Topics include: magnetic fields, electronics, radiation, waves and particles, and an introduction to semiconductor devices.

Credits: 5.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: MATH 123

Pre-Requisites: PHYS 114 Minimum Grade: D

PHYS 121 - Physical Science for Design I

Offers a non-calculus-based survey of physical science for students in design and the visual arts. Topics include kinematics in two dimensions, forces, Newton's laws, applications using the constant acceleration model, energy, momentum, conservation laws, universal gravitation, circular motion, satellites, oscillatory motion, wave motion, sound, and music.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Co-Requisites: EXAM 080

PHYS 122 - Physical Science for Design II

Continues PHYS 121. Topics include electricity, magnetism, em waves, light, geometrical and physical optics, atomic structure, the elements, and nuclear decay and nuclear energy.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Co-Requisites: EXAM 080

Pre-Requisites: PHYS 121 Minimum Grade: D

PHYS 131 - Survey of the Universe

Provides an overview of modern astronomy, including the scientific method; telescopes; stars and star clusters; stellar evolution; galaxies

and the large-scale structure of the universe; and the Big Bang. May also include periodic visits to the university observatory.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHYS 135 - How Things Work

This course examines the science behind everyday phenomena and devices. It uses real-world applications such as amusement park rides, microwave ovens, photocopiers, CDs, MRI, etc., as contextual vehicles to convey principles of classical and modern physics. It emphasizes conceptual understanding and uses pedagogy such as lecture demonstrations and active feedback.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Graduate Quarter

Undergraduate Quarter

PHYS 137 - Issues in Science and Religion

This survey course examines the interconnections and differences of science and religion, including topics as Cosmology, Human Origins, Prayer and Consciousness. Fundamental to the exploration of these theories are the examination of the historical, philosophical, psychological and sociological implications of these topics for society.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

PHYS 141 - Atm Sci I: Clim/Glob Chng

The atmosphere and its structure and variations; greenhouse effect; ozone depletion; the influence of weather on man; air pollution; acid rain.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: PHEV 142

PHYS 142 - Atmospheric Science I Lab

Introduction to climate analysis and methods

Credits: 1.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHYS 143 - Atmos Sci II-Wethr & Fore

The atmosphere and its properties; weather systems; severe weather; hurricanes; weather forecasting

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Co-Requisites: PHEV 144

PHYS 144 - Atmos Science II Lab

Introduction to meteorological analysis and forecasting methods.

Credits: 1.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHYS 151 - Applied Physics

Non-calculus-based introductory physics for business majors. Covers basic mechanics and simple harmonic motion, followed by an introduction to more advanced topics such as relativity, electromagnetism, and quantum phenomena.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: EXAM 081

PHYS 152 - Introductory Physics I

First part of a three-course algebra-based sequence providing a comprehensive introduction to Physics. Covers basic mechanics, including motion in 1, 2, and 3 Newton's laws, gravitation, energy, momentum, rotational motion and elastic properties of materials. Includes labs to enrich class material. High school physics not required.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: EXAM 081

PHYS 153 - Introductory Physics II

Second part of a three-course algebra-based sequence providing a comprehensive introduction to Physics. Covers fluids, vibrations, waves, sound, heat and thermodynamics, geometrical optics and optical instrumentation. Includes labs to enrich class material.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: EXAM 081

Pre-Requisites: PHYS 152 Minimum Grade: D or PHYS 101 Minimum Grade: D

PHYS 154 - Introductory Physics III

Third part of a three-course algebra-based sequence providing a comprehensive introduction to Physics. Covers fundamentals of electricity and magnetism, including charges, fields, potential, circuits, magnetic induction, electromagnetic waves, special relativity, and physical optics. Includes labs to enrich class material.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: PHYS 101 Minimum Grade: D or PHYS 152 Minimum Grade: D

PHYS 160 - Introduction to Scientific Computing

Basic introduction to scientific problem solving and numerical modeling of physical system using Excel and Maple.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

PHYS 181 - Astronomy

Provides an overview of modern astronomy, including the scientific method; telescopes; stars and star clusters; stellar evolution; galaxies and the large-scale structure of the universe; and the Big Bang. May also include periodic visits to the university observatory.

Credits: 3.00

College: Arts and Sciences

Department: Evening and Professional Studi

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following College(s)/School(s):

School of Tech & Prof Studies

May not have the following Classification(s):

PHYS 182 - Applied Physics I

Covers vectors; statics, kinematics, and classical dynamics, including Newton's laws, torque, projectile motion, and circular motion; work; power and energy; impulse and momentum; and rotation, in a non-calculus-based course. Fall.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 183 Minimum Grade: D and MATH 184 Minimum Grade: D

PHYS 183 - Applied Physics II

Covers fluids; elasticity; vibration, including simple harmonic motion; sound waves and acoustics; thermodynamics of temperature; heat; thermal-expansion; phase change; and heat transfer, in a non-calculus-based course. Winter.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 182 Minimum Grade: D

PHYS 184 - Applied Physics III

Covers light and illumination, electrostatics, potential, direct-current electrical circuits, magnetic fields, induction, generators, motors, and AC circuits, in a non-calculus-based course. Spring.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 183 Minimum Grade: D

PHYS 185 - Fundamentals of Physics Lecture I

First of a three course sequence teaching fundamental physics to engineering and science majors. Topics include: description of motion, inertial and non-inertial frames, special relativity, Newton's Laws, translational and rotational equilibrium, one- and two-dimensional motion, fundamental forces, inverse square laws, Gauss's Law, Bohr's quantization, rotational dynamics, potential energy, black holes, determinism and chaos.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Co-Requisites: MATH 186

Pre-Requisites: MATH 121 Minimum Grade: D

PHYS 186 - Physics I-A

A companion course for PHYS 185. Students will perform experiments related to Mechanics.

Credits: 1.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Pre-Requisites: PHYS 185 Minimum Grade: D

PHYS 187 - Fundamentals of Physics Lecture II

Second of a four course sequence teaching fundamental physics to engineering and science majors. Topics include: electrostatics, capacitors, charges in motion, insulators, semiconductors, voltage and current measurements, magnetism, electromagnetic induction, magnetic materials, quantum dots, magnetic resonance phenomenon.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Pre-Requisites: PHYS 185 Minimum Grade: D

PHYS 188 - Physics II-A

A companion course for PHYS 187. Students will perform experiments related to Electricity and Magnetism.

Credits: 1.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Pre-Requisites: PHYS 187 Minimum Grade: D

PHYS 201 - Fundamentals of Physics III

Third of a four course sequence teaching fundamental physics to engineering and science majors. Topics include: oscillations, EM waves, interference, diffraction, wave-particle duality, energy-matter equivalence, uncertainty relations, Schrodinger's equation, Hydrogen atom, laser, and nuclear physics.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Co-Requisites: EXAM 081

Pre-Requisites: PHYS 102 Minimum Grade: D

PHYS 202 - Fundamentals of Physics IV

Fourth of a four course sequence teaching fundamental physics to engineering and science majors. Topics include: statistical kinetic, equipartition of energy, entropy, ultra-low temperatures, thermal transport, interaction of charged particles and light with biological tissue, fiber optics, IR, Raman, spectroscopy, fluidics, and microfluidics.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Co-Requisites: EXAM 081

Pre-Requisites: PHYS 201 Minimum Grade: D

PHYS 217 - Thermodynamics

Covers macro-thermodynamics: temperature, pressure, work, heat, equations of state, the first and second laws of thermodynamics and their applications, heat engines and refrigerators, thermodynamics potentials, Maxwell relations, theory of phase changes, kinetic theory and transport phenomena.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: PHYS 114 Minimum Grade: D or PHYS 112 Minimum Grade: D or PHYS 102 Minimum Grade: D

PHYS 222 - Modern Physics

Covers special relativity and the electron, black-body radiation, quantum theory of radiation, Bohr theory, wave particle duality, Schrodinger equation, and nuclear phenomena.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 200 Minimum Grade: D and PHYS 211 Minimum Grade: D

PHYS 223 - Modern Physics Laboratory

Requires students to perform experiments in modern physics, including the Millikan oil-drop experiment, the photoelectric effect measurement, spectrometer experiments, atomic spectra observations, the Frank-Hertz experiment, the decay rate of radon, and a beta particle range experiment. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: PHYS 115 Minimum Grade: D or PHYS 102 Minimum Grade: D

PHYS 226 - Instrumentation for Scientists I

Introduces measurement concepts, including a systems approach to analog and digital measurement, amplification and feedback, electrical data domains, measurements of varying analog signals, time domain measurements and conversions, and A/D and D/A conversions. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHYS 227 - Instrumentation for Scientists II

Covers optimization of scientific measurements, including systems analysis, signal/noise, control of frequency response, modulation and demodulation, relation of sampling parameters to signal characteristics, and signal-to-noise ratio enhancement. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 226 Minimum Grade: D

PHYS 231 - Introductory Astrophysics

An introductory astrophysics course aimed at science majors. Topics include a treatment of orbits, Kepler's laws, celestial coordinates, light, blackbodies, optics, stellar structure and evolution, galactic formation, and large scale evolution and structure of the universe.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (PHYS 111 Minimum Grade: D or PHYS 113 Minimum Grade: D) and MATH 121 Minimum Grade: D

PHYS 232 - Observational Astrophysics

Covers photometric and spectroscopic properties of stars, galaxies, and quasars and fundamental astrophysics of these objects. The course contains a significant lab component, which includes training in methods of observation, using the Joseph Lynch Observatory on campus to obtain astronomical measurements, and analysis of data.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (PHYS 111 Minimum Grade: D or PHYS 113 Minimum Grade: D) and MATH 121 Minimum Grade: D

PHYS 281 - Fundamentals of Physics Lecture III

Third of a three course sequence teaching fundamental physics to engineering and science majors. Topics include: oscillations, EM waves, interference, diffraction, wave-particle duality, energy-matter equivalence, uncertainty relations, Schrödinger's equation, Hydrogen atom, laser, and nuclear physics.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Pre-Requisites: PHYS 102 Minimum Grade: D

PHYS 282 - Fundamentals of Physics Lab III

A companion course for PHYS 281. Students will perform experiments related to Thermodynamics and modern physics.

Credits: 1.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Pre-Requisites: PHYS 281 Minimum Grade: D

PHYS 305 - Computational Physics II

Covers the application of computational techniques to problems in physics, including numerical solution of differential equations, computation and display of particle trajectories in arbitrary potentials, introduction to non-linear dynamics, random numbers and Monte-Carlo methods, and numerical implementation of selected methods in mathematical physics. Emphasizes hands-on experience in problem-solving, using both Maple and C.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: and CS 171 Minimum Grade: D PHYS 105 Minimum

Grade: D

PHYS 306 - Computational Physics Laboratory I

Covers numerical solution of selected problems in electromagnetic theory, including solution of Laplace's equation, relaxation methods, computation of field lines and equipotentials, multipole expansions and computation of spherical harmonics, and solutions of Maxwell's equations and the wave equation.

Credits: 2.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 305 Minimum Grade: D and PHYS 322 Minimum

Grade: D

PHYS 307 - Computational Physics Laboratory II

Covers numerical solution of selected problems in quantum mechanics, including solution of the time-independent and time-dependent forms of the Schrodinger equation; the matrix form of quantum mechanics,

basis expansions, and bound-state solutions; and computation of wave packet propagation.

Credits: 2.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 305 Minimum Grade: D and PHYS 327 Minimum

Grade: D

PHYS 311 - Classical Mechanics I

Covers motion in one, two, and three dimensions, conservation laws, and damped harmonic oscillator, forced harmonic oscillator, and central force motion.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 210 Minimum Grade: D and (PHYS 115 Minimum

Grade: D or PHYS 201 Minimum Grade: D or PHYS 211 Minimum Grade:

D)

PHYS 312 - Classical Mechanics II

Covers motion of system of particles, center of mass and conservation of linear momentum, description of collisions, Rutherford scattering, dynamics of rigid bodies, coordinate systems, the restricted three-body problem, generalized coordinates, Lagrange's equations and Hamilton's equations, and rotation of frame.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 311 Minimum Grade: D

PHYS 317 - Statistical Mechanics

Covers distribution molecular velocities, transport phenomena, Maxwell-Boltzmann statistics, and quantum statistics.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 210 Minimum Grade: D and PHYS 217 Minimum

Grade: D

PHYS 321 - Electromagnetic Fields I

Covers fields due to specified charge distributions, Gauss' law, multipole expansion of the fields, Laplace's equation, method of images, dielectrics, and energy of an electrostatic field.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 115 Minimum Grade: D

PHYS 322 - Electromagnetic Fields II

Covers electric current, continuity equation, electromotive forces, magnetic fields, electromagnetic induction, magnetic properties of matter, Maxwell's equations, radiation, and radiation by moving charges.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 321 Minimum Grade: D

PHYS 324 - Topics in Mathematical Physics

This course presents the mathematical background needed for Thermodynamics, Classical Mechanics, Electricity & Magnetism, and Quantum Mechanics using the theory of linear vector spaces and the standard tools of elementary mathematical physics. Emphasis will be placed on the use of analytic and numerical programming techniques, using Maple, FORTRAN and C.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHYS 326 - Quantum Mechanics I

Explores the classical foundations of quantum mechanics, the Schrodinger equation, solutions of one-dimensional problems, and the one-dimensional harmonic oscillator.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 312 Minimum Grade: D

PHYS 327 - Quantum Mechanics II

Covers the three-dimensional Schrodinger equation, angular momentum, matrix mechanics, the hydrogen atom, and perturbation theory.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 326 Minimum Grade: D

PHYS 328 - Advanced Laboratory

Requires students to perform advanced laboratory experiments in the various fields of physics.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 227 Minimum Grade: D and PHYS 326 Minimum Grade: D

PHYS 399 - Independent Study in Physics

Credits: 12.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHYS 405 - Advanced Computational Physics

Covers the application of computational techniques to one or more research topics of current interest, including grid-based solutions of partial differential equations in one and two dimensions and particle methods in fluid mechanics. Introduces high-performance computation and massively parallel computing platforms.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must have the following Classification(s):

Junior

Senior

Pre-Requisites: PHYS 305

PHYS 408 - Physics Seminar

Requires participation in weekly departmental colloquium.

Credits: 1.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

PHYS 409 - Astrophysics Seminar

This course focuses on topics in modern astrophysics. Each term, a series of papers in a subfield is chosen. Students present and discuss recent results in fields such as stellar structure, black holes, cosmology, and dynamics. May be repeated twice for credit.

Credits: 1.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: PHYS 231 Minimum Grade: D or PHYS 232 Minimum Grade: D

PHYS 428 - Quantum Mechanics III

Advanced topics in quantum mechanics including spin, addition of angular momentum, scattering theory, relativistic quantum mechanics, atoms and molecules, and radiation from atoms.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 327 Minimum Grade: D

PHYS 431 - Galactic Dynamics

Covers dynamical problems in astrophysics, including the two-body problem, galactic stability, globular clusters, spiral arms and galactic collisions. Computational methods such as calculation of grid-based and particle-based potentials will also be discussed and applied.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 312 Minimum Grade: D

PHYS 432 - Cosmology

Covers cosmological models, age and distance scales in the universe, the hot big bang, primordial nucleosynthesis, inflation, baryonic and non-baryonic matter, galaxy formation and evolution, dynamics of structure formation, statistics of cosmological density fields, and cosmic background fluctuations.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 312 Minimum Grade: D

PHYS 451 - Quantum Structure of Materials

Introduces modern physics, including wave-particle duality; quantum mechanics of electrons located in one-dimensional potentials; introduction to solid-state physics; electronics in periodic potentials and energy band structure; numerical computations; metals, semiconductors, and insulators; electronic devices; quantum devices; and laboratory experiments in scanning tunneling microscopy and atomic force microscopy.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: TDEC 201 Minimum Grade: D and TDEC 222 Minimum Grade: D

PHYS 452 - Solid State Physics

Atomic basis of the physical properties of materials, including crystalline and non-crystalline solids. Detailed introductory treatment of the structural, vibrational, and electronic properties of solid and their inter-relationships. Overview of other materials, properties, and scientific basis of technological applications.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: PHYS 317 Minimum Grade: D and PHYS 326 Minimum Grade: D

PHYS 453 - Nanoscience

Scientific basis of nanoscale materials and systems including discussions of low-dimensional structures and their physical properties, the self-assembly of nanostructures, applications in various fields of science and technology, and techniques for fabrication and characterization on the nanoscale.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: PHYS 321, PHYS 326

Pre-Requisites: PHYS 311 Minimum Grade: D and PHYS 217 Minimum Grade: D

PHYS 461 - Biophysics

A one course introduction to biological physics. Topics may include: structure of biomolecules, protein stability, electron transfer, protein

folding, protein substrates, allostery, and self-assembly. No biological background is presumed.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: PHYS 317 Minimum Grade: D

PHYS 462 - Computational Biophysics

This course involves mathematical applications of biological simulations. Using classical and statistical mechanics, we will cover topics including atomic scale simulations, statistical sampling and models of molecular cellular systems and living processes.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Co-Requisites: PHYS 321

Pre-Requisites: PHYS 305 Minimum Grade: D and PHYS 317 Minimum Grade: D

PHYS 463 - Single Molecule Methods

Covers the principles, operations and applications of the most commonly used single molecule methods in biophysics, including scanning probe microscopy and spectroscopy, optical trapping and fluorescence resonance energy transfer techniques.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: PHYS 217 Minimum Grade: D and PHYS 322 Minimum Grade: D

PHYS 471 - Nonlinear Dynamics

This course introduces the basic ideas of the new science of nonlinear dynamics and develops methods to carry out fundamental computations of fractal dimension, Lyapunov exponents, and topological invariants.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: MATH 200 Minimum Grade: D

PHYS 476 - Nuclear and Particle Physics

Covers the nucleus as a neutron-proton system, including stable and unstable nuclei, nuclear spectra and radioactive decay, fission and fusion, quarks and leptons, experimental methods, fundamental forces, the quark model of hadrons, electroweak unification, and unifying theories.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Junior

Sophomore

Pre-Requisites: PHYS 327 Minimum Grade: D

PHYS 480 - Special Topics

Covers selected topics in physics. May be repeated for credit.

Credits: 12.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHYS 485 - Research

Covers research problems in physics.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PHYS 491 - Senior Research I

A three-term sequence devoted to theoretical or experimental activities in a specific area of physics or atmospheric science to be chosen in consultation with a faculty adviser. Requires students to learn to identify interesting problems, develop a plan of attack, and carry the project to completion. Requires written and oral report at the end of the third term.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must have the following Classification(s):

Senior

PHYS 492 - Senior Research II

Continues PHYS 491.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 491 Minimum Grade: D

PHYS 493 - Senior Research III

Continues PHYS 492. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PHYS 492 Minimum Grade: D

Physics-Environmental Science Courses

PHEV 141 - Atmospheric Science I: Climate and Global Change

Covers the atmosphere and its structure and variations, the greenhouse effect, ozone depletion, the influence of weather on humans, air pollution, and acid rain. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHEV 142 - Atmospheric Sci I Lab

Introduces climate analysis and methods. This is a writing intensive course.

Credits: 1.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHEV 143 - Atmos Sci II: Wthr Anal/Forcst

Covers the atmosphere and its properties, weather systems, severe weather, hurricanes, and weather forecasting.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHEV 144 - Atmospheric Sci II Lab

Introduces meteorological analysis and forecasting methods. This is a writing intensive course.

Credits: 1.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PHEV 145 - Weather I: Climate and Global Change

Introduction to the Earth's atmosphere and climate system including the structure and interaction of the components of this system. Students learn basic meteorological ideas and concepts. Special topics include weather satellite and Doppler radar imagery, daily weather discussions, the greenhouse effect and ozone depletion.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

PHEV 146 - Weather II: Analysis and Forecasting

Course covers real problems of weather analysis and forecasting. Components focus on surface and upper-air weather maps, westerlies and the jet stream, mid-latitude cyclones, thunderstorms, tornadoes and hurricanes. Special topics include weather instruments and observations, atmospheric optics and climate analyses.

Credits: 4.00

College: Arts and Sciences

Department: Physics

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

PHEV 346 - Atmospheric Dynamics

Covers equations of motion on a rotating earth; balanced horizontal motion and the thermal wind relation; equation of continuity; mechanism of pressure change; application of circulation and vorticity to atmospheric motion, viscosity, turbulence, and diffusion; and energy and stability relationships.

Credits: 3.00

College: Arts and Sciences

Department: Physics

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: MATH 200 Minimum Grade: D and PHYS 211 Minimum Grade: D

Psychology Courses

PSY 101 - General Psychology I

Reviews the fundamental principles, concepts, and methods of psychology, with emphasis on the concepts of motivation, learning, and perception, and their psychological foundations.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PSY 111 - Preprofessional Gen Psych I

Preprofessional General Psychology is designed for majors and for other preprofessionals who are interested in Psychology as a minor. A scientific approach to the study of psychology is taken. An overview of

the fundamental principles of psychology across a variety of sub-disciplines is offered. Part one is part of a two-part sequence and focuses on the experimental bases of psychology.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PSY 112 - Preprofessional Gen Psych II

Preprofessional General Psychology is designed for preprofessionals who are interested in psychology or related fields, especially designed for majors, and may be taken by minors of psychology. It follows Preprofessional General Psychology I and includes a laboratory component to enhance the scientific approach to psychology. Part two focuses on the application of scientific principles of psychology to human behavior.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: PSY 111 Minimum Grade: D

PSY 120 - Developmental Psychology

Examines the nature of developmental processes-perceptual, intellectual, emotional, and social-and the factors influencing and limiting them.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PSY 140 - Approaches to Personality

Discusses the major concepts of Freud, neo-Freudians, behaviorists, humanists, trait theorists, and others. Emphasizes understanding of self and others for psychotherapy and research. Fall.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PSY 150 - Introduction to Social Psychology

Examines theoretical and research findings in personal experiences of interacting with others in family and group settings, and with society in general.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PSY 210 - Evolutionary Psychology

Covers principles of genetics and evolution as applied to the behavior of the important types of living beings, from plants and unicellular organisms to the primates (including humans).

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 212 - Physiological Psychology

Reviews neural foundations of behavior, including the study of nerve activity and brain function.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 213 - Sensation and Perception

Examines the structure and function of the senses, including vision, hearing, touch, temperature, pain, olfaction, gustation, time, and kinesthesia. Considers interaction of the senses and their role in determining behavior.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 222 - Psych Probs Modern Youth

Examines psychological problem areas frequently encountered by young adults in today's society, including identity crisis, family conflict, the new sexuality, drugs, and the search for intimacy.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 225 - Child Psychopathology

This class will focus on the symptoms, etiology, and primary methods of treating common psychological disorders and problems of children and adolescence. The course will focus on diagnosis; assessment; specific therapeutic treatments; ethical issues; and gender, cultural, and

developmental differences in symptoms, diagnosis, and response to treatment.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 111 Minimum

Grade: D or PSY 112 Minimum Grade: D

PSY 230 - Psychology of Learning

Introduces basic principles of the science of learning. Emphasizes I. P. Pavlov's classical conditioning, B. F. Skinner's operant conditioning, and applications to counseling and therapy.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum

Grade: D or PSY 112 Minimum Grade: D

PSY 240 - Abnormal Psychology

Offers advanced course in the general study of personality. Focuses on the way our society defines, explains, and handles behavior perceived as deviant and "normal." Requires field trip. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PSY 242 - Psychology of Disability

Psychological and social consequences of physical disability for the disabled person and his or her family and social network. Emphasis on disabilities of the sensory and nervous systems. Practicum component.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 244 - Culture and Personality

Influence of culture on personality formation and the relations of cultural modes to perception, cognition, and other psychological processes. Interdisciplinary focus

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

Freshman

PSY 245 - Sports Psychology

Covers sports psychology, which is the science of understanding, modifying, and predicting athletic performance or sports participation. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 250 - Industrial Psychology

Covers theories, experiments, and problem-solving efforts of behavioral scientists in industrial settings for students interested in interpersonal relations, management, leadership, personnel, and applied psychology. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 252 - Death and Dying

Explores death and dying from various perspectives, including the philosophical, psychological, sociocultural, and personal.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 254 - Psychology of Sexual Behavior

Examines psychology of the individual coping with the sexual aspects of life.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 260 - Psychological Research I

This course provides an introduction to the issues, techniques and methodologies associated with conducting psychological research. Topics to be covered include the logic of research in psychology, important issues in deciding how to study various psychological phenomena, ethical issues and guidelines in conducting psychological research, design and analysis of psychological research, assessing threats to internal and external validity, methods used in the interpretation of psychological data, and writing research reports in the style used by research psychologists.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 111 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 265 - Computer-Assist Data Anal II

Building on PSYCH 363, this course covers more advanced statistical techniques such as regression, correlation, analysis of variance and multiple regression

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 305 - Sci/Pseudoscience in Psych

Science and Pseudoscience in Psychology. Fosters critical thinking skills regarding the evaluation of paranormal, unusual, or extraordinary phenomena (e.g. ESP, recovered memories of abuse). Examines ways that a human cognition leads to strange beliefs despite contradictory data. The distinctions between science and pseudoscience are highlighted.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: PSY 101 Minimum Grade: D or (PSY 111 Minimum Grade: D and PSY 112 Minimum Grade: D)

PSY 310 - Drugs & Human Behavior

Covers the fundamentals of drug effects on the nervous system and behavior, with emphasis on abused substances and drugs used in the treatment of behavioral disorders.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 230 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 320 - Educational Psychology

Covers role and relevance of psychology in the teacher-learner relationship, with independent application of research techniques in an individual field study. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 322 - Adv Developmental Psych

Provides in-depth exploration of child and adolescent physical, cognitive/intellectual, and psychosocial development. Students have the opportunity to observe children and their caregivers through videotaped vignettes created to bring developmental principles to life.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D) and PSY 120 or PSY 112 Minimum Grade: D

PSY 330 - Cognitive Psychology

Covers human thought processes, including perception and pattern recognition, learning and memory, language, problem-solving, and decision-making.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 332 - Human Factors & Cognitive Engr

Discusses ways of designing machines, operations, and work environments so that they match human capacities and limitations.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 336 - Psychology of Language

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 337 - Human-Computr Interaction

Applies cognitive and experimental psychology to understanding how to improve the design and usability of interactive computing systems.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 340 - Psychological Testing and Assessment

Enables the student to gain an understanding of the proper uses and applications of psychological evaluation by focusing on psychometric properties and reviewing selected tests and evaluation procedures commonly employed by psychologists in research and clinical practice.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 342 - Counseling Psychology

Covers theory and practice of establishing helping relationships. Includes role-playing, analyzing, and observations.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 350 - Advanced Social Psychology

Provides in-depth exploration of topics in the social influence process, including current research in social cognition, attitude change, and group dynamics.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 150 Minimum Grade: D

PSY 352 - Environmental Psychology

Multidisciplinary study of the interrelationship between human behavior and the natural, built, and social environments.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 355 - Health Psychology

Health Psychology is designed to: concentrate on the application of psychological theories and variables to compromising and health enhancing behaviors; demonstrate the psychological management of chronic illness; and the role of psychologists written medical and health settings. For example, it focuses on the effects of stress on the body, the mind-body connection, and how psychology can affect physical well-being.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 111 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 356 - Women's Health Psychology

Explores the major psychological and behavioral factors influencing health and illness among women. Topics, such as lifecycle challenges (PMS and reproductive health), chronic diseases, and new directions in health promotion are addressed.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or (PSY 111 Minimum Grade: D and PSY 112 Minimum Grade: D)

PSY 357 - The Psychology of Eating Disorders and Obesity

Covers determinants of eating behavior and body weight as well as psychological treatments for them. Factors influencing eating regulation will be reviewed. The causes, consequences, and treatments for anorexia and bulimia nervosa and binge eating disorder will be reviewed. Finally, the courses will review the causes, consequences and treatments for obesity.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Pre-Requisites: PSY 101 Minimum Grade: D

PSY 360 - Experimental Psychology

Provides a study of the basic scientific fundamentals of the experiment with emphasis upon the critical thinking this method represents in establishing psychological principles. Contrasts are made to such modern pseudosciences as parapsychology. A final experiment is required of all students in this course.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 362 - Test and Measurement Theory

Theory and methodology for the development of psychological testing procedures. Covers psychometric theory and techniques and the rationale and procedures in developing various tests and measurements.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D

PSY 364 - Computer-Assisted Data Analysis I

Covers data analysis using a mainframe statistical package covering basic elementary techniques of data reduction, manipulation, and statistical analysis.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 365 - Computer-Assisted Data Analysis II

Covers more advanced statistical techniques, such as regression, correlation, analysis of variance, and multiple regression.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 364 Minimum Grade: D and (PSY 112 Minimum Grade: D or PSY 101 Minimum Grade: D)

PSY 370 - Forensic Psychology

This course describes the psychological processes involved in the legal system. The material delves into the growing field of physiological study and application in the legal field.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 401 - History Systems Psych

Examines the historical foundations of modern psychology, with emphasis on the growth, contributions, and decline of major systems and theories.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 410 - Neuropsychology

Provides a study of the relationship between human brain function and behavior. Examines basic anatomy of the brain and focuses on principles of human neuropsychological functioning. Studies cortical and "higher cognitive functioning" in depth through a focus on both normal and brain-injured individuals.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D or PSY 112 Minimum Grade: D

PSY 440 - Advanced Personality Seminar

Examines contemporary trends and methods in personality research and assessment. Students have an opportunity to test their own ideas as well as those of others.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 140 Minimum Grade: D

PSY 442 - Theors & Practice Clin Psych

Provides an overview of clinical psychology theory and practice including professional issues, assessment strategies, and psychotherapy theories. Students have the opportunity to develop their own philosophy of clinical psychology and to apply theories to case examples.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: (PSY 101 Minimum Grade: D or PSY 112 Minimum Grade: D) and (PSY 140 Minimum Grade: D and PSY 342 Minimum Grade: D) or PSY 112 Minimum Grade: D

PSY 445 - Positive Psychology

The course provides an overview of the emerging subfield of psychology known as "positive psychology". This area focuses on investigating and understanding positive aspects of well-being and health, including various human strengths, such as resilience, optimism, spirituality, hope, and problem-solving.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: PSY 101 Minimum Grade: D or (PSY 111 Minimum Grade: D and PSY 112 Minimum Grade: D)

PSY 460 - Adv Psych: Lab App & Tech

Introduction to variety of laboratory techniques; survey of how basic psychological theories and knowledge influence actual practice in the psychological laboratory. Laboratory exercises will focus on development of the research skills necessary for independent research.

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 477 - Senior Seminar I

In-depth exploration of selected topics. Projects selected by students in consultation with professor

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 478 - Senior Seminar II

Continuation of PSYCH 477

Credits: 3.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

PSY 480 - Directed Studies in Psychology

Provides supervised reading and studies in special fields of contemporary psychology. See department brochure for topics and terms offered.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

PSY 490 - Psychology Senior Thesis I

An in-depth exploration of selected topics. Projects are selected by students in consultation with a faculty member. The students conduct these projects over the course of three terms in which they take PSY 490, 491, and 492.

Credits: 4.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Psychology

Must have the following Classification(s):

Senior

PSY 491 - Psychology Senior Thesis II

An in-depth exploration of selected topics. Projects are selected by students in consultation with a faculty member. The students conduct these projects over the course of three terms in which they take PSY 490, 491, and 492.

Credits: 4.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Psychology

Must have the following Classification(s):

Senior

Pre-Requisites: PSY 490 Minimum Grade: D

PSY 492 - Psychology Senior Thesis III

An in-depth exploration of selected topics. Projects are selected by students in consultation with a faculty member. The students conduct these projects over the course of three terms in which they take PSY 490, 491, and 492.

Credits: 4.00

College: Arts and Sciences

Department: Psychology

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Psychology

Must have the following Classification(s):

Senior

Pre-Requisites: PSY 491 Minimum Grade: D

Russian Courses

RUSS 101 - Russian I

Introductory Russian. Includes listening, speaking, and reading, with individual audiolingual practice. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

RUSS 102 - Russian II

Continues RUSS 101. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 101 Minimum Grade: D

RUSS 103 - Russian III

Continues RUSS 102. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 102 Minimum Grade: D

RUSS 201 - Russian IV

Intermediate Russian. Includes listening, speaking, reading, and writing, with individual audiolingual practice. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 103 Minimum Grade: D

RUSS 202 - Russian V

Continues RUSS 201. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 201 Minimum Grade: D

RUSS 203 - Russian VI: Convs & Comp

Continues RUSS 202. Provides intensive practice in comprehension and written and oral communication. Emphasizes development of writing skills and increased oral competence in everyday situations. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 202 Minimum Grade: D

RUSS 301 - Russian VII

Advanced Russian. Provides reading, writing, and extensive conversational practice. Offered as needed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 203 Minimum Grade: D

RUSS 302 - Russian VIII

Provides advanced practice in translation, comprehension, and written and oral communication. Offered as needed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: RUSS 301 Minimum Grade: D

RUSS 303 - Russian IX

Continues RUSS 302. Offered as needed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 302 Minimum Grade: D

RUSS 399 - Adv Independ Study Russian

Provides supervised study of special subjects in Russian language and literature. Offered all terms.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 303 Minimum Grade: D

RUSS 411 - Intro Russian Stylistics

Fourth year of Russian. Provides advanced practice in translation, comprehension, and written and oral communication. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 303 Minimum Grade: D

RUSS 431 - Intro Russian Literature

Provides intensive reading, writing, and conversational practice in Russian, based on selected texts in Russian literature. Offered twice each year.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 303 Minimum Grade: D

RUSS 451 - Intro Bus & Prof Russian

Fourth year of Russian. Provides intensive oral practice and written work in business, professional, and commercial Russian. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: RUSS 303 Minimum Grade: D

RUSS 480 - Russian Minor Thesis Course

Independent research study on a topic selected by the student. Independent study is supervised by a faculty member and guided by a plan of study. At the end of the course, the student is required to produce a paper and oral defense on the topic of his paper.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

RUSS 499 - Independent Study in Russian

Credits: 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Sociology Courses

SOC 101 - Introduction to Sociology

Examines principles underlying human interaction in simple technological societies, including learning and development of social roles; development and meaning of culture and social organizations; and special institutions in the society, such as the family, class structure, and power structure.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

SOC 110 - Sociology of the Future

Examines ideas, values, and methods of the world's leading futurists (e.g., Bell, Henderson, Kahn, and Tofler). Focuses particularly on the energy challenge, the information revolution, and postindustrial scenarios.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

SOC 115 - Social Problems

Examines conceptions and misconceptions regarding the causes and cures for social problems such as unemployment, urban decline, crime, health care, and discrimination.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 120 - Sociology of the Family

Examines structure and functions of the family and the roles, relationships, problems, and opportunities of family living from a variety of perspectives. Uses lectures, field experiences, and discussion.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 125 - Sociology of the Aging

Introduces the multidisciplinary scientific study of the causes and consequences of aging, its history, methods of research, major theoretical approaches, and empirical findings.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

SOC 137 - Issues in Science and Religion

This survey course examines the interconnections and differences of science and religion, including the scientific and religious theories of such topics as Cosmology, Human Origins, Prayer and Consciousness. Fundamental to the exploration of these theories are the examination of the historical, philosophical, psychological and sociological implications of these topics for society.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

SOC 150 - Sex and Society

This course examines how sexualities are socially produced and re-produced. Topics of study include gender and sexuality; changing social meanings of variant sexual orientations and practices; the effect of birth-control technologies, sexually transmitted infections and sexual violence on sexual norms; the commodification of sex and the social control of sex.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

SOC 204 - Criminology

Criminology is the scientific study of crime, criminal behavior and societal responses to crime and to crime victims. Students will study theories of crime causation, crime types, ethics of research, data collection and methods of crime prevention and control. Issues such as capital punishment, gun control and restorative justice will be debated.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 205 - Criminology & Criminal Justice

Introduces the scientific study of crime and criminals. Analyzes the theoretical and empirical literature on causation and control. Examines our criminal justice system and approaches to corrections.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

SOC 210 - Race and Ethnic Relations

Examines practical ongoing or proposed reforms for local, national, and global problems. Assesses realistic techniques for countering prejudice, tension, discrimination, and backlash.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 215 - Industrial Sociology

Provides "practical wisdom" in recognizing, analyzing, and anticipating psychological, sociological, technological, and economic changes of work systems.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

SOC 220 - Wealth and Power

Examines the extent of differences in wealth and political power in modern society and looks at the origins and implications of those differences.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 225 - Tech & Aging Ind Socs

Technological developments bring change to the elderly in industrial societies. The course explores redefinitions of aging, shifts in work and retirement goals, health care and service delivery impacts and network needs in a comparative perspective using the United States, Great Britain, Denmark and Yugoslavia as examples.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

SOC 230 - Women & Men-Changing Soc

Explores the status and roles of modern women and men, with emphasis on changes in family relationships, career options, and lifestyle alternatives.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 235 - Sociology of Health

Examines the history, economics, and politics of our health-care system and the effects of technology on the quality of health care.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: SOC 101 Minimum Grade: D or ANTH 101 Minimum Grade: D

SOC 240 - Urban Sociology

Provides an overview of the contemporary process of urban change and of key problems and policy issues. Concentrates on five concerns: the evolution of urban economics; life and culture in the city today; race, ethnicity, gender, and class of urban populations; urban politics and social forces; and new directions in urban development.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

SOC 250 - Research Methods I

Covers research design, including ethics of research, sampling, survey research, interviewing, field experiments, and content analysis.

Involves multidisciplinary examples and application in seminar format with student production of original projects.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

SOC 260 - Classical Social Theory

Critically examines the ideas of the classical sociological theorists (e.g., Marx, Durkheim, and Weber). This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 268 - Sociology of Sport

The course looks at the cultural and social aspects of sport. Students will be introduced to sport as a ubiquitous institution of American Society, to the essential characteristics and functions of sport, and to the historical and sociological study of sport.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

SOC 270 - Theory of Applied and Community Sociology

Introduces the theory and methods of participatory research, focusing on exemplary case studies. The roots of participatory sociology in liberation theology, feminism, and Deweyian pragmatism are presented.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 274 - Sex, Violence & Crime on the Internet

This course explores how offenders are adopting computers to commit traditional crimes in a hi-tech manner. Specific attention will be paid to how the Internet has affected the structure of hate groups and the child pornography and sexual predator subcultures. Cyber-stalking and online harassment will also be examined.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
May not have the following Classification(s):

SOC 275 - Issues in Domestic Violence

Domestic Violence is a major public health problem. This course will describe DV in the context of multiple response systems including health care, police, advocacy, and criminal justice. We will explore how DV affects men, women and children and examine societal conditions that allow DV to occur and continue.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

SOC 276 - Introduction to Computer Crime

This course provides an overview of computer crime. Emphasis will be placed on the legislative responses and policy issues related to computer intrusions and cyber-fraud. Issues encountered when enforcing laws in cyberspace and the public/private sector initiatives for dealing with computer crime will also be explored.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

May not have the following Classification(s):

SOC 277 - Introduction to Correctional Practices

This course will provide insight into corrections through theory, laws and contemporary practices, facilities management, reentry and alternatives to incarceration. Corrections involve the 'treatment and rehabilitation of offenders through a program involving penal custody, parole, and probation' (Merriam-Webster). This course will include site visits, guest lecturers and case analysis.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

SOC 310 - Topics in Political Sociology

Examines social bases of politics; political power, bureaucracy, and social structure; sources and development of democracy and dictatorship; and political attitudes, movements, and parties.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

Freshman

SOC 311 - Topics in Sociology of Religion

Examines the sociological basis of religion, religious thought and movements as well as the organization and social function of religion on social institutions and groups.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

SOC 312 - Topics in Soc of Sci and Tech

Examines the sociological basis of scientific theorizing, knowledge production and research as well as the organization and social function of scientific labor and the impact of applied science on social institutions and groups.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

SOC 320 - Sociology of Deviant Behavior

Examines theories of deviance, focusing on their attribution of causation and the implications for correction and/or control at both the individual and societal levels. Includes topics such as alcoholism, mental illness, criminality, and other deviant behaviors.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

Freshman

SOC 330 - Dev Nations/Intnt'l Div Labor

Focuses on the ways in which the international economy affects the class structure, politics, and development of developing nations. Focuses particularly on multinational corporations and on the successes and failures of import-substitution and export-oriented industrialization programs.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

May not have the following Classification(s):

Freshman

SOC 335 - Sociology of Education I

First course of a two-term sequence. Provides a general introduction to the sociology of education through the study of social, political, and cultural forces operating on public education in the United States and Britain. Examines theories, methods, and case studies to explore issues of identity formation, inequality, and class reproduction in an attempt to understand the role of schooling in contemporary life.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 336 - Sociology of Education II

Continues SOC 335. Students will be involved as literacy coaches tutoring critical literacy skills. Upon completion of 40 hours of tutoring, students will receive a Certificate of Literacy Teaching.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: SOC 335 Minimum Grade: D

SOC 340 - Globalization

This course investigates the causal factors for the emergence of what is known as globalization, global economy, global village, etc. It covers the effects of global changes on national political systems, on ecology and on local cultures. The role of the US and reactions to the new world order will also be considered.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

SOC 341 - Environmental Movements in America

Focuses on key collective actors and institutions that are involved in the creation of U.S. environmental policies, including historical and cultural processes of change involving social movements, environmental advocacy organizations, foundations, and the media.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

SOC 343 - The American Experience of the Wilderness

Focuses on the ecological systems and the biodiversity; various social constructions and ideologies surrounding the idea of wilderness that inform practices toward nature; and the development of wilderness protection efforts.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

SOC 344 - Social Movements

Focuses on historical and social processes by which social movements arise, set in motion of social change, and the outcomes of social movement efforts.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

SOC 345 - Sociology of the Environment

Examines acts of nature vs. acts of man, food and health, environmental politics, social movements and environmental issues, environmental and development policies, and environmental and global change.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

SOC 346 - Environmental Justice

Focuses on the political economy of environmental injustice and the impact of social movements addressing it; impact of chemical pollutants on human health; and the scientific and legal issues surrounding the study and regulation of pollutants.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

SOC 347 - Introduction to Environmental Policy Analysis

Introduction the development and implementation of U.S. environmental policy, including historical development, political process, methods of analysis and creation of laws, regulations and budgets.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

SOC 350 - Research Methods II

Covers planning, design, and implementation of evaluation studies, including the role of the researcher, ethics, and legal concerns in program and policy decision-making.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: SOC 250 Minimum Grade: D

SOC 364 - Computer-Assisted Data Analysis

This course uses the computer as a tool in organizing and manipulating a numerical database, as well as in performing statistical analyses. Simulation and modeling may also be covered.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

SOC 365 - Computer-Assisted Data Analysis II

Building on SOC 364, this course covers more advanced statistical techniques such as regression, correlation, analysis of variance and multiple regression.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: SOC 364 Minimum Grade: D

SOC 370 - Practicum in Applied and Community Sociology

This course is central to the newly adopted emphasis of the sociology major on participatory research. These courses are intended as the practicum and supervised project-oriented research work for community organizations and agencies.

Credits: .50 to 5.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

SOC 373 - Environmental Crimes

An examination of the criminal consequences of the violation of laws, regulations and policies governing clean water, air and toxic substances. Analysis of case studies from a variety of perspectives including crime scene investigations and potential terrorism.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

SOC 374 - Restorative Justice

Restorative justice is a paradigm shift in criminal justice in response to the failure of the traditional retributive model to meet the needs of victims, offenders and the community. Programs have developed worldwide often sponsored by governments, others by non-profits, to handle both juvenile and adult criminal offences more effectively.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: CJ 206 Minimum Grade: D

SOC 376 - Sentencing: The History, Necessity and Morality of Punishment in America

The course is an exploration of punishment, its various philosophies, theories and approaches. The costs and outcomes of incarceration as well as alternatives will be examined as well as disparities regarding age, gender, race in our sentencing. A review of the ultimate sanction, the death penalty will complete the course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: SOC 206 Minimum Grade: D

SOC 377 - Intellectual Property Theft in the Digital Age

This seminar focuses on the changing nature of intellectual property theft in the Digital Age. Attention will be paid to legislative solutions for protecting intellectual property and the challenges faced when investigating the theft of intellectual property. Additionally, theoretical explanations to account for intellectual property theft will be explored.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

SOC 380 - Special Topics in Sociology

This course will explore current issues and debates in Sociology. It will be conducted as a seminar. The topic will vary each term.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 435 - Seminar - Organ of Amer States

Prepares students to participate in a model session of the Organization of American States (OAS). Covers international political economy, structure and operation of OAS, characteristics of designated country, and public speaking and debate. Open to students in international area studies and sociology. May be repeated for credit.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must be enrolled in one of the following Major(s):

Communication

International Area Studies

Sociology

SOC 460 - Contemporary Social Theory

Covers a broad range of theories that guide contemporary sociological thought. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

SOC 470 - Social Change & Planning

Seeks answers to questions such as: How can we cope with future shock? How can we formulate our own plans, initiate careful policies, and guide large-scale-change efforts for the future?

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

SOC 490 - Sociology Research Seminar I

An in-depth exploration of selected topics. Projects are selected by students in consultation with a faculty member.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must have the following Classification(s):

Junior

Senior

SOC 491 - Soc Research Seminar II

Continuation of Soc 490

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Must have the following Classification(s):

Senior

Pre-Requisites: SOC 490 Minimum Grade: D

SOC 492 - Soc Research Seminar III

Continuation of Soc 491

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: SOC 491 Minimum Grade: D

SOC 495 - Directed Studies in Sociology

Provides supervised study that allows students to explore topics of their own choosing individually.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Spanish Courses

SPAN 101 - Spanish I

Introductory Spanish. Includes listening, speaking, reading, and writing. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

SPAN 102 - Spanish II

Continues SPAN 101. Offered all terms.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: SPAN 101 Minimum Grade: D

SPAN 103 - Spanish III

Continues SPAN 102. Offered all terms.

Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: SPAN 102 Minimum Grade: D

SPAN 201 - Spanish IV

Intermediate Spanish. Includes grammar review, listening, speaking, and reading. Recommended for students who wish to attain oral competence. Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: SPAN 103 Minimum Grade: D

SPAN 202 - Spanish V

Continues SPAN 201. Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: SPAN 201 Minimum Grade: D

SPAN 203 - Spanish VI: Conversation & Comprehension

Provides intensive practice in comprehension and written and oral communication. Emphasizes development of writing skills and increased oral competence in everyday situations. Offered all terms.
Credits: 4.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: SPAN 202 Minimum Grade: D

SPAN 311 - Intro Spanish Stylistics

Provides advanced practice in comprehension and written and oral communication, based primarily on periodicals and contemporary media. Offered all terms. This is a writing intensive course.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: SPAN 203 Minimum Grade: D

SPAN 312 - Spanish Stylistics

Continues SPAN 311. Provides extensive study of the techniques of translation and communication. Offered all terms. This is a writing intensive course.

Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: SPAN 311 Minimum Grade: D or SPAN 331 Minimum Grade: D or SPAN 351 Minimum Grade: D

SPAN 313 - Advanced Spanish Stylistics

Continues SPAN 312. Provides advanced training in oral and written communication in Spanish. Particularly recommended for students who have pre-proficiency status, Spanish minors, and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: SPAN 312 Minimum Grade: D or SPAN 332 Minimum Grade: D or SPAN 352 Minimum Grade: D

SPAN 331 - Intro Spanish Lit Studies

Advanced Spanish. Reading, writing, and extensive conversational practice based on masterpieces of Spanish literature.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

SPAN 332 - St Spanish/ Span Amer Lit

Includes reading and oral and written analysis of representative texts in Spanish and Spanish-American literature, including familiarization with the historical and cultural contexts. Offered as needed.
Credits: 3.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: SPAN 313 Minimum Grade: D

SPAN 333 - Adv Spanish/ Span Am Lit

Continues SPAN 332. Provides advanced study of Spanish and Spanish-American literature. Offered as needed.
Credits: .50 to 20.00
College: Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: SPAN 332 Minimum Grade: D

SPAN 351 - Intro Bus & Prof Spanish

Advanced year. Provides intensive oral practice and written work in business, professional, and commercial Spanish. Offered as needed.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: SPAN 203 Minimum Grade: D

SPAN 352 - Business & Prof Spanish

Advanced business and professional Spanish. Advanced practice in oral and written Spanish for business and the professions. Based on advanced texts, periodicals, and technical journals.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: SPAN 311 or SPAN 331 or SPAN 351

SPAN 353 - Adv Business & Prof Spanish

Provides advanced study in business and professional terminology, with emphasis on the structure and protocols of the business world. Offered as needed.

Credits: .50 to 20.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: SPAN 351 Minimum Grade: D

SPAN 371 - Spec St Spanish Civil & Cult

Presents an integrated approach in Spanish to the civilization, culture, history, and literature specific to the areas in which the language is spoken, with emphasis on the development and evaluation of cultural values. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: SPAN 313 Minimum Grade: D

SPAN 399 - Adv Independ Study Spanish

Provides supervised study of special subjects in Spanish language and literature. Offered all terms. This is a writing intensive course.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: SPAN 203 Minimum Grade: D

SPAN 411 - Spec St Adv Spanish Stylistics

Continues SPAN 313. Particularly recommended for students who have proficiency status, Spanish minors, and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: SPAN 313 Minimum Grade: D

SPAN 431 - Spec St Adv Spanish Lit

Continues SPAN 333. Particularly recommended for students who have proficiency status, Spanish minors, and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: SPAN 333 Minimum Grade: D or SPAN 313 Minimum

Grade: D or SPAN 353 Minimum Grade: D or SPAN 371 Minimum

Grade: D

SPAN 451 - Sp St Adv Bus/Prof Spanish

Continues SPAN 353, with emphasis on the structure and protocols of the European Union. Particularly recommended for students who have proficiency status, Spanish minors, and students interested in graduate study and/or international careers. Offered as needed.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: SPAN 353 Minimum Grade: D

SPAN 471 - Spec St Spanish Civilization

Presents an integrated approach, at the advanced level, to the civilization, culture, history, and literature of a given period specific to the areas in which Spanish is spoken, with emphasis on the development and evaluation of cultural values. Offered as needed. This is a writing intensive course.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman
Pre-Requisites: SPAN 371 Minimum Grade: D

SPAN 480 - Spanish Minor Thesis Course

Independent research study on a topic selected by the student. Independent study is supervised by a faculty member and guided by a plan of study. At the end of the course, the student is required to produce a paper and oral defense on the topic of his paper.

Credits: 4.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

SPAN 499 - Special Topics in Spanish

Recommended for Spanish minors and for students with proficiency status. Offered all terms. This is a writing intensive course.

Credits: .50 to 12.00

College: Arts and Sciences

Department: Culture and Communication

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

Women's Studies Courses

WMST 101 - Introduction to Women's Studies

Offers an interdisciplinary, cross-cultural survey of the ways in which gender interacts with race, age, and class to shape human consciousness and determine the social organization of human society.

Credits: 3.00

College: Arts and Sciences

Department: Women's Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

WMST 240 - Women/Society Global Context

Studies women in a global society with one major area covered during each offering. Offered each year to accommodate one major world area.

Credits: 3.00

College: Arts and Sciences

Department: Women's Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

WMST 250 - African American Herstories

Students gain insights into three distinct historical periods of African American (American) History and a cross section of African American life through the reading, analysis, and discussion of selected African American women's autobiographies.

Credits: 3.00

College: Arts and Sciences

Department: Women's Studies

Restrictions:

Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
May not have the following Classification(s):
Freshman

WMST 280 - Spec Top Women's Studies

Gives students an opportunity to apply the interdisciplinary methodology of women's studies to a focused topic. Topics to be announced. May be repeated for credit.

Credits: 3.00

College: Arts and Sciences

Department: Women's Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

WMST 299 - Independent Study in Women's Studies

Independent study on a topic selected by the student. Independent study is supervised by a faculty member and guided by a plan of study.

Credits: 12.00

College: Arts and Sciences

Department: Women's Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

WMST 301 - Seminar in Feminist Theory

Studies theoretical perspectives offered by feminist scholars in a range of disciplines from literature to politics. Proceeds from the assumption that feminist approaches yield different answers to traditional questions and pose new questions for critical inquiry.

Credits: 3.00

College: Arts and Sciences

Department: Women's Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

Pre-Requisites: WMST 101 Minimum Grade: D

WMST 308 - Queer Theory

In an attempt to theorize the meaning of "queer" (and, in turn, its counterparts "normal" and "straight") and to articulate what "queer theory" is/does, this course will examine major attempts to challenge the concept of "normal" and explicate the meaning and use of the concept "queer."

Credits: 3.00

College: Arts and Sciences

Department: Women's Studies

Restrictions:

May not be enrolled in one of the following Program Level(s):
Continuing Education

Writing Courses

WRIT 210 - Writing & Peer Tutoring Wkshop

A practicum course which trains students to become Peer Tutors in the Drexel Writing Center; focuses on reading and discussing many different kinds and aspects of writing. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

WRIT 220 - Creative Nonfiction Writing

A writing workshop in which students will read and write nonfiction; emphasis is placed on experimenting with different forms as the personal essay, literary journalism, nature writing, science writing and editing and preparing manuscripts for publication. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

WRIT 225 - Creative Writing

A workshop course in composing imaginative forms of personal expression, including poems, short stories, plays, and personal essays. This is a writing intensive course.

This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

WRIT 301 - Writing Poetry

A writing workshop in which students will read and write poetry; emphasis is placed on experimenting with different forms of poetry, editing, and manuscript preparations for publication. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

WRIT 302 - Writing Fiction

A creative writing workshop course focusing on fiction. Students read and write short stories. Students develop skills by creating complete fictional works and critiquing the work of other students. Emphasis placed on narrative structure, prose style, pacing, voice and tone, appropriate material, character, plot, description, dialogue, and editing.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

WRIT 303 - Writing Humor and Comedy

A creative writing course focusing on humor and comedy. Students read and write satire, essays, social commentary and special forms. Students develop skills by creating complete works and critiquing the work of other students. Emphasis is placed on writing for specific audiences, narrative structure, prose style and editing.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

WRIT 304 - Special Topics in Writing

A variable topics course in writing in which students will read and write in different genres, according to the specific topic (i.e., Writing Fiction; Joking, Comedy and Laughter; Memoir and Autobiography; Nature Writing); emphasis is placed on editing and manuscript preparation for publication. This is a writing intensive course.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum

Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade:

D or ENGL 105 Minimum Grade: A

WRIT 306 - Writing About the Media

This course teaches students how to write about media events and artifacts (books, movies, theatre, music, etc.), both as individual works and in a larger cultural context. It also teaches them about the kinds of media outlets which publish reviews and the style of writing these outlets favor.

Credits: 4.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

Pre-Requisites: (ENGL 101 Minimum Grade: D and ENGL 102 Minimum Grade: D and ENGL 103 Minimum Grade: D) or ENGL 105 Minimum Grade: D

WRIT 310 - Literary Editing & Publication

A course focusing on the techniques of editing, copyediting, proofreading, graphic selection and placement, the development of qualitative standards in manuscript selection for literary texts as well as connecting useful editorial/publication practice and social concerns in the fields of literary production.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Pre-Requisites: ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A or HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D

WRIT 312 - The Practice of Professional Writing

This seminar acquaints students with the broad spectrum of work in professional writing, including reading and discussion of assigned research on various aspects of writing, and panel discussions with guest speakers, experienced professional writers and managers who work writers. Students research a writing-related field or topic.

Credits: 3.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

May not have the following Classification(s):

Freshman

Pre-Requisites: ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A or HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D

WRIT 400 - Writing in Cyberspace

Students explore the world of cyberspace, learning about cyberpunk, hyperfiction and the literary theory related to them, operating in a MOO, and developing a website for a specific audience. Students consider these online environments critically and reflect on their significance. No previous computer experience required.

Credits: 4.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

May not be enrolled in one of the following Program Level(s):

Continuing Education

May not have the following Classification(s):

Freshman

Sophomore

WRIT 405 - Internship in Literary Publishing

Internship in Literary Publishing offers students practical experience in journal publication. One such example is Painted Bride Quarterly, which is produced both electronically and in print.

Credits: 2.00

College: Arts and Sciences

Department: English & Philosophy

Restrictions:

Must be enrolled in one of the following Program Level(s):

Undergraduate Quarter

Pre-Requisites: HUM 103 Minimum Grade: D or HUM 105 Minimum Grade: A or HUM 108 Minimum Grade: D or ENGL 103 Minimum Grade: D or ENGL 105 Minimum Grade: A