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College of Arts and Sciences: Undergraduate Course Descriptions

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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: College of 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: College of 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: College of 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: College of 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

**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: College of 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: College of 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: College of 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: College of Arts and Sciences  
Department: Afro-American Studies  
Restrictions:  
Must be enrolled in one of the following Program Level(s):


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: College of Arts and Sciences
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: College of Arts and Sciences
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: College of Arts and Sciences
Restrictions:
May not be enrolled in one of the following Program Level(s): Continuing Education

ANTH 201 - 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: College of Arts and Sciences
Restrictions:
May not be enrolled in one of the following Program Level(s): Continuing Education

ANTH 210 - 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: College of Arts and Sciences

ANTH 212 - 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: College of Arts and Sciences
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: College of Arts and Sciences
Restrictions:
May not be enrolled in one of the following Program Level(s): Continuing Education

ANTH 230 - 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: College of Arts and Sciences
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: College of Arts and Sciences
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: College of 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: College of 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: College of 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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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 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: College of 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: College of 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: .50 to 12.00
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions: Must be enrolled in one of the following Program Level(s): Undergraduate Quarter

Arts & Sciences-Interdisciplinary Studies 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: College of 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: College of 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: College of 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: College of 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 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: College of 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: College of 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: College of 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: College of 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

**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: College of 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**
Credits: 4.50
College: College of 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
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 (including medical terminology and clinical applications). Anatomy and Physiology I concentrates on tissue, musculoskeletal, and nervous anatomy and physiology.
Credits: 4.50
College: College of 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 (including medical terminology and clinical application). Anatomy and Physiology II concentrates on endocrine, cardiovascular, respiratory, renal, gastrointestinal, and reproductive anatomy and physiology.
Credits: 4.50
College: College of 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 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: College of 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

BIO 163 - General Biology III
Continues BIO 162. Covers the plant and animal kingdoms, radiobiology, evolution, and ecology. Spring.
Credits: 3.00
College: College of 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 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: College of Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: BIO 204 Minimum Grade: D or BIO 214 Minimum Grade: D or TDEC 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: College of 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: College of 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: College of 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: College of 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

**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: College of 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 TDEC 122 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: College of Arts and Sciences  
Department: Bioscience & Biotechnology  
Restrictions:  
Must be enrolled in one of the following Program Level(s): Undergraduate Quarter

**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 expresses and regulated.  
Credits: 3.00  
College: College of 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 117 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: College of 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: 5.00  
College: College of 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 117 Minimum Grade: D or BIO 114 Minimum Grade: D

**BIO 226 - Microbiology for Health Prof'l**  
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: College of 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: 5.00  
College: College of 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 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: College of 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: 5.00  
College: College of 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 )

**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: College of 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 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: College of 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: College of 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: College of 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: College of Arts and Sciences  
Department: Bioscience & Biotechnology  
Restrictions:  
Must be enrolled in one of the following Program Level(s):  
Undergraduate Quarter

Undergraduate Quarter

Pre-Requisites: BIO 123 Minimum Grade: D or BIO 114 Minimum Grade: D
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 protests, 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: College of 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 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: College of 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: 4.50
College: College of 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 )

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: College of Arts and Sciences
Department: Bioscience & Biotechnology
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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 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 discusses.
Credits: 4.00
College: College of 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 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: College of 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

**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: College of 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: College of 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

**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: College of 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 415 - Proteins**
Discusses protein structure, function, and isolation. Emphasizes biochemical, biophysical, and molecular biological techniques.
Credits: 3.00
College: College of 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: College of 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: College of 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: College of 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 modern concepts in immunology, including immunologic phenomena, biochemistry of antigens and antibodies, immunologic methods, cellular and genetic components of the immune response, immunopathology, transplantation, and cancer immunology.
Credits: 3.00
College: College of 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

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: College of 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

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: College of 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 and BIO 215 Minimum Grade: D

BIO 440 - Biometry
Second course in statistics, with emphasis on theory, complex parametric designs, power analyses, resampling statistics, linear models, computations in SAS and in programming.
Credits: 3.00
College: College of 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 441 Minimum Grade: C

BIO 441 - Data Analysis
First course in statistics, introduction to probability, estimation, hypothesis testing, regression, ANOVA, chi-square, computations in SAS.
Credits: 3.00  
College: College of 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 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: College of 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: College of Arts and Sciences  
Department: Bioscience & Biotechnology  
Restrictions:  
May not 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 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: College of 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: College of 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: College of 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 Neuodegeneration
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: College of 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 464 - Animal Behavior
Studies the mechanisms and evolution of behavior of animals in relation to their natural environment, including genetics, physiology, and ecology of behavior. Includes laboratory exercises consisting of films, demonstrations, and observational studies at the Philadelphia Zoo and in natural habitats.
Credits: 4.50
College: College of 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 218 Minimum Grade: D or BIO 206 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: College of 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

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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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

**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: College of 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: College of 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: College of 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

**CHEM 102 - General Chemistry II**
Covers chemical equilibrium, including acid-base equilibria in solution; electrochemistry; organic chemistry; polymers; and petroleum.
Credits: 4.50
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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):
College of 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: College of 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: College of 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):
College of Arts and Sciences
College of Engineering
Co-Requisites: CHEM 111

CHEM 114 - General Chem II Lab
Continuation of CHEM 113
Credits: 1.50
College: College of 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):
College of 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: College of 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):
College of 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: College of 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: College of 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

CHEM 163 - General Chemistry III
Continues organic chemistry. Introduces thermodynamics, molecular biology, inorganic chemistry, chemical kinetics, and nuclear chemistry.

Credits: 3.00
College: College of 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: College of 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: College of 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: College of 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 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: College of 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 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: College of 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: College of 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: College of 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
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: College of 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 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: College of 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: College of 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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 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.

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: College of 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: 5.00 to 12.00
College: College of Arts and Sciences
Department: Chemistry
Restrictions:
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: 5.00 to 12.00
College: College of Arts and Sciences
Department: Chemistry
Restrictions:
Must be enrolled in one of the following Major(s):
Chemistry

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: College of 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) and (CHEM 252 Minimum Grade: D or TDEC 202 Minimum Grade: D)

CHIN 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: College of 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) and (CHEM 252 Minimum Grade: D or TDEC 202 Minimum Grade: D)

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: College of 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: College of 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: College of 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.

CHIN 202 - Chinese V
Continues CHIN 201. Offered all terms.
Credits: 4.00
College: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
Credits: 4.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions: Must be enrolled in one of the following Program Level(s): Undergraduate Quarter

**Communication Courses**

**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: College of 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions: May not have the following Classification(s):

**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: College of Arts and Sciences
Department: Culture and Communication
Restrictions: 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions: 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: College of 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 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: College of 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: College of 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 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: College of 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: College of 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 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: College of 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 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: College of 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: College of 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: College of 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: College of 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 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: College of 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 - Environmental Info Campaigns**  
This reading and writing intensive, seminar-style course explores theories and practical aspects of environmental information campaigns and community-based social marketing campaigns. The theories and frameworks presented in this course apply to health issues as well as environmental issues. This course has a strong applied component.  
Credits: 3.00  
College: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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

**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: College of 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: College of 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 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: College of 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: College of 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 storytelling, greetings, gossip, self-presentation in talk, language of ritual and religion, men and women's roles in communication, and communicative events and competence. Case study in literature will be analyzed and will form a basis for the students' own ethnographic fieldwork.
Credits: 3.00
College: College of 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: College of 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 to 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: College of 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: College of 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 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: College of 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
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: College of 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not have the following Classification(s):
Continuing Education
Freshman

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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not have the following Classification(s):
Continuing Education
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: College of 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 410 - Advanced Technical Writing**
Continues COM 310. This is a writing intensive course.
Credits: 3.00
College: College of 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: 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
Must be enrolled in one of the following Program Level(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: College of 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):
Senior
Pre-Requisites: COM 210 Minimum Grade: D and (COM 220 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: College of 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):
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: College of 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: College of 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: College of 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 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: College of 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: College of 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 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: College of 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: College of 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 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: College of 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: College of 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions: Must be enrolled in one of the following Program Level(s): Undergraduate Quarter

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

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: College of 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: College of 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: College of 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 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: College of 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: SOC 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
Must be enrolled in one of the following Program Level(s):

**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: College of 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

**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: College of 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: College of 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

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

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: College of 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: College of 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: College of 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 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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 form 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: College of 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. This is a writing intensive course.
Credits: 3.00
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 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: College of 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 illuminate 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: College of 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: College of 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: College of 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 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: College of Arts and Sciences
Department: English & Philosophy

### 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: College of 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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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 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: College of 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: College of 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: College of Arts and Sciences  
Department: English & Philosophy  
Restrictions: 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: 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: College of Arts and Sciences  
Department: English & Philosophy  
Restrictions: Must be enrolled in one of the following Program Level(s): Undergraduate Quarter
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: College of 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: College of 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 HHHS
Capstone Seminar in Humanities, Health Sciences, and Society gives students opportunities to synthesize, contextualize, and deepen understanding of how the humanities and the social sciences approach experiences and implication of illness aging, mortality and healing. Focuses on how narrative informs understanding of these issues. Includes regular guest lecturers, discussion of assigned readings, student presentation, and written projects.
Credits: 4.00
College: College of 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

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: College of 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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: English Language Center
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

ESL 002 - 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: College of 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: College of 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: College of Arts and Sciences
Department: English Language Center
Restrictions:
May not be enrolled in one of the following Program Level(s):

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: College of 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: College of 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: College of Arts and Sciences
Department: English Language Center
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

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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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 reiteres 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: English Language Center
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

French Courses

FREN 101 - French I
Introductory French. Includes listening, speaking, reading, and writing. Offered all terms.
Credits: 4.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

FREN 102 - French II
Continues FREN 101. Offered all terms.
Credits: 4.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 101 Minimum Grade: D

FREN 103 - French III
Continues FREN 102. Offered all terms.
Credits: 4.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 102 Minimum Grade: D

FREN 201 - French IV
Intermediate French. Includes grammar review, listening, speaking, and reading, with individual audiolingual practice. Offered all terms.
Credits: 4.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 103 Minimum Grade: D

FREN 202 - French V
Continues FREN 201. Offered all terms.
Credits: 4.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 201 Minimum Grade: D

FREN 203 - French 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 202 Minimum Grade: D

FREN 311 - Intro French Stylistics
Provides advanced practice in comprehension and written and oral communication, based primarily on periodicals and contemporary media. Offered every term. This is a writing intensive course.
Credits: 4.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 203 Minimum Grade: D

FREN 312 - French Stylistics
Continues FREN 311. Provides extensive study of the techniques of translation and communication. Offered all terms. This is a writing intensive course.
Credits: 3.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 311 Minimum Grade: D or FREN 331 Minimum Grade: D or FREN 351 Minimum Grade: D

FREN 313 - Advanced French Stylistics
Continues FREN 312. Provides advanced training in oral and written communication in French. Particularly recommended for students who have pre-proficiency status, French minors, and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.

Credits: 4.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 312 Minimum Grade: D

FREN 331 - Intro French Lit Studies
Advanced French. Reading, writing, and extensive conversational practice, based on masterpieces of French literature.
Credits: 3.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 313 Minimum Grade: D

FREN 332 - Studies in French Literature
Includes reading and oral and written analysis of representative texts in French literature, including familiarization with the historical and cultural contexts. Offered as needed.
Credits: 3.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 313 Minimum Grade: D

FREN 333 - Advanced French Literature
Continues FREN 332. Provides advanced study of French literature. Offered as needed.
Credits: 3.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 332 Minimum Grade: D

FREN 351 - Intro Bus & Prof French
Provides intensive oral practice and written work in business, professional, and commercial French. Offered as needed.
Credits: 3.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 203 Minimum Grade: D

FREN 352 - Business & Prof French
Advanced Business and Professional French. Advanced practice in oral and written French for business and the professions. Based on advanced texts, periodicals, and technical journals.
Credits: 3.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 311 or FREN 331 or FREN 351

FREN 353 - Adv Business & Prof Fren
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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 351 Minimum Grade: D

FREN 371 - Spec St French Civ & Cult
Presents an integrated approach in French 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 312 Minimum Grade: D or FREN 332 Minimum Grade: D or FREN 352 Minimum Grade: D

FREN 399 - Adv Independ Study French
Provides supervised study of special subjects in French language and literature. Offered all terms. This is a writing intensive course.
Credits: 12.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 203 Minimum Grade: D

FREN 411 - Spec St Adv French Stylist
Continues FREN 313. Particularly recommended for students who have proficiency status, French minors, and students interested in graduate study and/or international careers. Offered as needed. This is a writing intensive course.
Credits: 4.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Pre-Requisites: FREN 203 Minimum Grade: D

FREN 412 - Business Prof French

FREN 413 - Business Prof French
May not have the following Classification(s):
Freshman
Pre-Requisites: FREN 313 Minimum Grade: D

FREN 431 - Spec St Adv French Lit
Continues FREN 333. Particularly recommended for students who have
proficiency status, French minors, and students interested in graduate
study and/or international careers. Offered as needed. This is a writing
intensive course.
Credits: 4.00
College: College of 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: FREN 333 Minimum Grade: D

FREN 451 - Sp St Adv Bus/Prof French
Continues FREN 353, with emphasis on the structure and protocols of
the European Union. Particularly recommended for students who have
proficiency status, French minors, and students interested in graduate
study and/or international careers. Offered as needed.
Credits: 4.00
College: College of 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: FREN 353 Minimum Grade: D

FREN 471 - Sp St French 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 French 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: College of 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: FREN 371 Minimum Grade: D or FREN 313 Minimum
Grade: D or FREN 333 Minimum Grade: D or FREN 353 Minimum Grade: D

FREN 480 - French 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: College of Arts and Sciences

Department: Culture and Communication
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

FREN 499 - Special Topics in French
Recommended for French minors and for students with proficiency
status. Offered all terms. This is a writing intensive course.
Credits: .50 to 12.00
College: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

German Courses

GER 101 - German I
Introductory German. Includes listening, reading, writing, and speaking.
Offered all terms.
Credits: 4.00
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 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: College of 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 331 Minimum Grade: D

GER 333 - Advanced German Literature
Continues GER 332. Provides advanced study of German literature. Offered as needed.
Credits: 3.00
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 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: College of 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: College of 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: College of 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.  
Builds on Greek 101.  
Credits: 4.00  
College: College of 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 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: College of 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: College of 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 major 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences

HIST 209 - US & Central America
Covers the history of relations between the United States and the nations of Central America.
Credits: 3.00
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: History & Politics
Restrictions: May not be enrolled in one of the following Program Level(s): Continuing Education

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: College of 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: College of 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: College of 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: College of 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
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: College of 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: College of 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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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
dominance through two world wars, and the challenge of the present.
Credits: 3.00
College: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

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: College of 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 in 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 Habsburg and Bourbon dynasties to the 1810s. Covers role of race, class, gender and family (marriage and food).
Credits: 3.00
College: College of 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: College of 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: College of 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 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: College of Arts and Sciences
Department: History & Politics
Restrictions:
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: College of Arts and Sciences
Department: History & Politics
Restrictions:
Must be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

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: College of 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: College of 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: College of 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.

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

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

HIST 491 - Senior Seminar II
Requires completion of the project begun in HIST 490. This is a writing intensive course.
Credits: 3.00
College: College of Arts and Sciences
Department: History & Politics
Restrictions: May not be enrolled in one of the following Program Level(s): Continuing Education

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: College of Arts and Sciences
Department: History & Politics
Pre-Requisites: HIST 490 Minimum Grade: D

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 Courses

HUM 006 - Oral Comm Sk/Non-Native Spkers
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: College of Arts and Sciences
Department: English & Philosophy
Restrictions: May not be enrolled in one of the following Program Level(s): Continuing Education

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

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: College of 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: College of 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

HUM 211 - Studies in the Humanities I
Introduces the subject matter, methodologies, and critical issues of the humanities.
Credits: 3.00
College: College of 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

HUM 305 - Metaphorical Thinking
Interdisciplinary study of the process of metaphorical thinking
Credits: 3.00
College: College of 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

HUM 315 - Perspectives in HHHS
Variable topics seminar presenting multidisciplinary approach to health-related topics rooted in literary, philosophical, social, scientific/technological, and psychological perspectives. Focuses on readings selected by students and instructor to enhance intellectual cohesiveness and community within the program. May be repeated three times for credit.
Credits: 1.00
College: College of 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

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: College of 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: College of 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: College of 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):
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: College of Arts and Sciences
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: College of 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: College of 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: College of 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/Stdy Abr
Credits: 5.0 to 20.00
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 102 - Italian II
Continues ITAL 101. Offered all terms.
Credits: 4.00
College: College of 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: College of 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: College of 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 331 Minimum Grade: D or ITAL 331 Minimum Grade: D

ITAL 202 - Italian V
Continues ITAL 201. Offered all terms.
Credits: 4.00
College: College of 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: College of 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: College of 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: College of 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
ITAL 331 - Intro Italian Lit Studies
Advanced Italian. Reading, writing, and extensive conversational practice, based on masterpieces of Italian literature.
Credits: 3.00
College: College of 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 333 - Adv Italian Literature
Continues ITAL 332. Provides advanced study of Italian literature. Offered as needed.
Credits: 6.00
College: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: Culture and Communication

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: College of 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 Styli
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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

JAPN 103 - Japanese III
Continues JAPN 102. Offered all terms.
Credits: 4.00
College: College of 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 201 - Japanese IV
Intermediate Japanese. Includes listening, speaking, reading, and writing, with individual audiolingual practice. Offered all terms.
Credits: 4.00
College: College of 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: College of 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: College of 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 301 - Japanese VII
Advanced Japanese. Provides reading, writing, and extensive conversational practice. Offered as needed.
Credits: 3.00
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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
Credits: 4.00
College: College of 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

Language/Linguistics 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: 0.50 to 12.00
College: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
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: College of Arts and Sciences
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: College of Arts and Sciences
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 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: College of Arts and Sciences
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: College of Arts and Sciences
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: College of Arts and Sciences
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: College of Arts and Sciences
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: College of Arts and Sciences
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: College of Arts and Sciences
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: College of 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: College of 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: College of 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: College of 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: College of 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 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: College of 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 emphasizes critical reasoning skills necessary for later concept-oriented 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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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

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: College of 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: College of 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: College of Arts and Sciences
Department: Mathematics
Restrictions:
May not be enrolled in one of the following Program Level(s): Continuing Education
Pre-Requisites: TDEC 114 Minimum Grade: D and TDEC 115 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 ) and MATH 318 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: College of 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: College of 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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 422 - Introduction to Topology
Covers topological space, metric spaces, function, continuity, compactness, and connectedness.
Credits: 4.00
College: College of 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: College of Arts and Sciences
Department: Mathematics
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

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: College of 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: College of 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: College of 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 systems 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: College of 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.
MATH 497 - Ind Study in Math
Provides supervised study of selected topics in mathematics.
Credits: .50 to 12.00
College: College of 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 498 - Special Topics
Credits: 12.00
College: College of 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: College of Arts and Sciences
Department: Mathematics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

Philosophy Courses

PHIL 101 - Introduction to Philosophy
Surveys traditional issues and problems encountered in the practice of philosophy.
Credits: 3.00
College: College of 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
An introductory course. Designed to impart the skills of sound reasoning and argumentation useful in most fields.
Credits: 3.00
College: College of 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

PHIL 111 - Beginning Logic
Provides an introduction to formal logic. Main topics include formal languages, propositional logic (syntax, semantics, and derivations), first-order predicate logic (syntax and semantics), and metalogical properties (satisfiability, logical truth, tautologousness, logical consequence, and validity).
Credits: 3.00
College: College of 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

PHIL 121 - History of Ideas
Examines changing worldviews from medieval times to the present, using analysis of historical documents and texts to illuminate the writers' goals and values and their assumptions about human nature and the world.
Credits: 3.00
College: College of 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

PHIL 201 - Hist Of Western Philos I
Studies philosophical works from the eighth century B.C. to circa 1500. Emphasizes ancient Greek philosophy and its influence on Middle Ages thinkers, and scholasticism and its early critics.
Credits: 3.00
College: College of 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

PHIL 202 - Hist Of Western Philos II
Studies philosophical works from 1500 to 1900. Emphasizes Continental Rationalism (Descartes, Liebniz, Spinoza) and British Empiricism (Locke, Berkeley, Hume), and reviews Kant's program and one or more 19th-century movements.
Credits: 3.00
College: College of 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

PHIL 203 - Hist Of Western Philos III
Studies recent American, British, and/or Continental philosophers, such as Pierce, Dewey, Russell, Austin, Sartre, and Foucault.
Credits: 3.00
College: College of 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

PHIL 207 - Intermediate Logic
Surveys several self-referential paradoxes, including Epimenides’s famous liar paradox; discusses how they have been formalized to prove powerful results in mathematics, logic, and computational theory; and considers how these technical results have influenced philosophical discussions surrounding the mind/body problem, human cognition, and artificial intelligence.
Credits: 3.00
College: College of 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 111

PHIL 210 - Philosophy of Sport
An investigation into philosophical issues arising in sport. The analysis of the role of sport in individual fulfillment, in social and political processes, and in historical and cultural contexts. Topics will include: the metaphysics of sport; mind and body in sport; the aesthetics and ethics of sport; sport and culture; the connection of sport to philosophy.
Credits: 3.00
College: College of 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 classical and contemporary theories of reality and responses to questions bearing on the nature of time, the identity of persons, the nature of mind, and the free-will debate. Investigates recent challenges to the possibility of metaphysics.
Credits: 3.00
College: College of 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 221 - Epistemology
Surveys major theories of knowledge in the modern Western philosophical tradition, including an examination of the roles of belief, truth, and justification in “knowing.”
Credits: 3.00
College: College of 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 231 - Aesthetics
Examines philosophical theories of art, using readings drawn from philosophers, contemporary artists (literary, musical, and visual), and critics.
Credits: 3.00
College: College of 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 major works in social and political philosophy, including such authors as Plato, Aristotle, Hobbes, Locke, Mill, Marx, Nietzsche, and Marcuse.
Credits: 3.00
College: College of 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 251 - Ethics
Considers problems central to ethics, including moral reasoning, obligation and motivation, moral incontinence, the nature of justice, and intentional action.
Credits: 3.00
PHIL 261 - Applied Ethics
Study of selected moral theories and standards encountered in the history of philosophy. Application of such theories and standards to moral problems arising in the practices of science, engineering, art, and communications.
Credits: 3.00
College: College of 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
Takes a case-study approach to such moral issues as truth-telling, puffery, and lying in business communication; employer-employee relations; obligations to customers; obligations to foreign populations; and government contracts.
Credits: 3.00
College: College of 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
Undertakes a systematic study of moral problems arising in the context of public communications, including ethical problems encountered in organizational and mass communication.
Credits: 3.00
College: College of 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: COM 210 Minimum Grade: D

PHIL 311 - Computer Ethics
Studies moral problems pertaining to the production of computer technologies, and provides ethical analyses of current laws and pending legislation aimed at regulating computer use.
Credits: 3.00
College: College of Arts and Sciences
Department: English & Philosophy
Restrictions: May not be enrolled in one of the following Program Level(s):

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: College of 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):
College of Engineering
May not have the following Classification(s):
Freshman
Sophomore

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: College of 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 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: College of 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. Topics will include: ethical issues of 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.
PHIL 330 - Ethical Issues in Criminal Justice
An introduction to the study of ethical issues associated with the criminal justice system. Topics include: a framework for ethical decision-making; the concept of professionalism; deception, coercion and use of force in law enforcement; criminal sentencing, prosecutorial misconduct, misuse of authority in penal institutions; white collar crime.
Credits: 3.00
College: College of 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 331 - Philosophy and Public Policy
Studies conceptual and normative issues informing public policy. Investigates the structure of arguments and the nature of values relevant to the formation, justification, and criticism of public policy.
Credits: 3.00
College: College of 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 moral theories in the context of global ethical problems. Deals with the analytical and technological methods of addressing current global issues such as intellectual property, terrorism, nuclear energy, supranational organizations, space exploration, and the regulation of the Internet.
Credits: 3.00
College: College of 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 105 Minimum Grade: D

PHIL 341 - Philosophy of the Environment
Provides an ethical analysis of developments in science and technology affecting people and their working and home environments, including such topics as air pollution, technology-engendered forms of cancer, and environmentally hazardous working conditions.
Credits: 3.00
College: College of 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 351 - Philosophy of Technology
Studies the nature of technology; its relationships to science, economics, ethics, and art; and its role in shaping and being shaped by human values.
Credits: 3.00
College: College of 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 361 - Philosophy of Science
Provides a philosophical study of scientific theorizing and scientific methods, including the nature of explanation, the structure of theories, observational and systematic justification of theoretical beliefs, and justification of change-of-theory.
Credits: 3.00
College: College of 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 371 - Philosophy of Social Sciences
Provides a philosophical inquiry into the competing methodologies and presuppositions of the social sciences, with emphasis on foundational, Marxist, and critical approaches.
Credits: 3.00
College: College of 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 381 - Philosophy in Literature
Explores several philosophical issues as they appear in major literary works. This is a writing intensive course.
Credits: 3.00
College: College of Arts and Sciences
Department: English & Philosophy
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

PHIL 391 - Philosophy of Religion
Analyzes the concept of God, including critical evaluation of arguments purporting to demonstrate the existence of such a being and examination of the problem of evil and such issues as religious mysticism, miracles, and the roles of faith and reason in religious life.
Credits: 3.00
College: College of 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 399 - Independent Project in Philosophy
Provides supervised study of subjects/topics in philosophy.
Credits: 12.00
College: College of 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 475 - Special Problems in Philosophy
Topic for each term to be announced. May be repeated for credit.
Credits: 3.00
College: College of 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

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: College of Arts and Sciences
Department: Physics
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
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: College of 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

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: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: Physics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

PHYS 111 - Physics I
Calculus-based course that explores principles of mechanics pertaining to kinematics, dynamics, momentum, and energy and conservation laws.
Credits: 4.50
College: College of Arts and Sciences
Department: Physics
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

PHYS 112 - Physics II
Calculus-based course that covers the nature of wave motions, including harmonic forces, general wave characteristics, acoustics, geometrical and physical optics, temperature, heat, heat transfer, black body, ideal gas, laws of thermodynamics, and heat engines.
Credits: 4.50
College: College of Arts and Sciences
Department: Physics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Co-Requisites: EXAM 080
Pre-Requisites: PHYS 111 Minimum Grade: D

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: College of 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: College of 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: College of 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: College of 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):
Freshman
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, anatomic structure, the elements, and nuclear decay and nuclear energy.
Credits: 4.00
College: College of 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):
Freshman
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: College of 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. 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: Physics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

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

**PHYS 171 - Solar Energy**
Covers solar radiation, elementary heat transfer, properties of opaque and transparent materials, flat-plate and focusing collectors, energy storage, and solar heating systems.
Credits: 3.00
College: College of 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 212 Minimum Grade: D

**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: College of Arts and Sciences
Department: Evening and Professional Studies
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

**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: College of 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: College of 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: College of 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 - 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 calculus-based course. All terms.

Credits: 3.00
College: College of 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: MATH 186

**PHYS 186 - Physics I-A**
Includes computer-augmented experiments in mechanics designed to give students experience in obtaining data and discovering the laws or principles that can be deduced from the results. Devotes time to elementary numerical analysis and basic computer programming for analyzing laboratory data. Fall, Winter, Spring.

Credits: 2.00
College: College of 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 185 Minimum Grade: D

**PHYS 187 - Physics II**
Covers elasticity; vibration, including simple harmonic motion; sound waves and acoustics; and nature and propagation of light, including reflection, refraction, lenses and optical instruments, interference, diffraction, and polarization, in a calculus-based course. All terms.

Credits: 3.00
College: College of 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 185 Minimum Grade: D

**PHYS 188 - Physics II-A**
Includes computer-augmented experiments in transverse wave motion, longitudinal wave motion, and incoherent and coherent (laser) optics. Devotes time to elementary numerical analysis and basic computer programming for analyzing laboratory data. Fall, Winter, Spring.

Credits: 2.00
College: College of 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 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, Schrödinger's equation, Hydrogen atom, laser, and nuclear physics.

Credits: 4.00
College: College of 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, fluids, and microfluidics.

Credits: 4.00
College: College of 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 211 - Physics III**
Calculus-based course that covers phenomena and principles of electricity and magnetism, including electrostatics, potential theory, capacitance, direct currents, electrical instruments and circuits, magnetic fields, induced EMF, alternating currents, magnetic properties of matter, and inductance.

Credits: 4.50
College: College of 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: MATH 123 Minimum Grade: D and PHYS 112 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: College of 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

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: College of 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: College of Arts and Sciences
Department: Physics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education
Co-Requisites: PHYS 222
Pre-Requisites: PHYS 115 Minimum Grade: D or PHYS 211 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: College of 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 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: College of 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 185 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: College of 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: College of 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 - Physics III
Covers electrostatics, potential theory, capacitance, direct currents, electrical instruments and circuits, magnetic fields, induced emf, magnetic properties of matter, inductance, and alternating currents, in a calculus-based course. All terms.
Credits: 3.00
College: College of 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 185 Minimum Grade: D

PHYS 282 - Physics III-A
Covers computer-augmented experiments in electrostatics, electric fields, circuits, and magnetic fields. Devotes time to elementary numerical analysis and basic computer programming for analyzing laboratory data. Fall, Winter, Spring.
Credits: 2.00
College: College of 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 281 Minimum Grade: D

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**PHYS 283 - Introduction to Modern Physics**
Covers the electron, black-body radiation, quantum theory of radiation, Bohr theory, special relativity, wave particle duality, and nuclear phenomena.
Credits: 3.00
College: College of 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 211 Minimum Grade: D

**PHYS 284 - Modern Physics Laboratory**
Includes computer-augmented experiments in the study of the basic properties of elementary particles and the measurement of fundamental constants, radioactive properties of isotopes, and properties of atomic structure. Devotes time to elementary numerical analysis and basic computer programming for analyzing laboratory data.
Credits: 2.00
College: College of 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 283 Minimum Grade: D

**PHYS 285 - Physical Thermodynamics**
Covers temperature and thermodynamic systems, equations of state and the laws of thermodynamics, and thermodynamic functions and transformations.
Credits: 3.00
College: College of 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 281 Minimum Grade: D and MATH 189 Minimum Grade: D and MATH 200 Minimum Grade: D

**PHYS 286 - Kinetic Thry & Stat Mech**
Covers molecular velocities and transport phenomena, including Maxwell-Boltzmann, Fermi-Dirac, and Einstein-Bose statistics.
Credits: 3.00
College: College of Arts and Sciences

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**PHYS 287 - Adv Electric & Magnet I**
Covers electrostatics, Gauss’ law, method of images, and solutions of Laplace’s equation.
Credits: 3.00
College: College of 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 281 Minimum Grade: D

**PHYS 288 - Adv Electric & Magnetism II**
Covers magnetic fields, interaction between currents, electromagnetic induction, and Maxwell’s equations.
Credits: 3.00
College: College of 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 287 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: College of 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: College of 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 Schrödinger equation; the matrix form of quantum mechanics, basis expansions, and bound-state solutions; and computation of wave packet propagation.
Credits: 2.00
College: College of 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: College of 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: College of 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**
Credits: 3.00
College: College of 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: College of 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 and PHYS 324 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: College of 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: College of 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 Schrödinger equation, solutions of one-dimensional problems, and the one-dimensional harmonic oscillator.
Credits: 4.00
College: College of 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 Schrödinger equation, angular momentum, matrix mechanics, the hydrogen atom, and perturbation theory.
Credits: 4.00
College: College of 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: College of 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 381 - Theoretical Mechanics I**
Credits: 3.00
College: College of 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 382 - Theoretical Mechanics II**
Credits: 3.00
College: College of 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 383 - Optics I**
Covers wave theory, electromagnetic theory, and geometrical and physical optics, including lenses, mirrors, fibers, thick lenses, optical systems, interference and interferometers, polarization, lasers, and instruments. Summer. Alternate years.
Credits: 3.00
College: College of 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 187 Minimum Grade: D and MATH 189 Minimum Grade: D

**PHYS 384 - Quantum Mechanics I**
Credits: 3.00
College: College of 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 385 - Quantum Mechanics II**
Credits: 3.00
College: College of 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 399 - Independent Study in Physics**
Credits: 12.00
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 317 Minimum Grade: D and PHYS 321 Minimum
Grade: D and PHYS 326 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: College of 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: College of 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: College of 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 321 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.
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: College of 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: College of 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 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: College of 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: College of Arts and Sciences

PHYS 480 - Special Topics
Covers selected topics in physics. May be repeated for credit.
Credits: 12.00
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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, tornados and hurricanes. Special topics include weather instruments and observations, atmospheric optics and climate analyses.
Credits: 4.00
College: College of 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: College of 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

Political Science Courses

PSCI 100 - Introduction to Political Science
Studies the political process, which determines who gets what, when, and how in society.
Credits: 4.00
College: College of Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

PSCI 110 - American Government I
Introduces the elements of the American political system.
Credits: 4.00
College: College of Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):

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Continuing Education

PSCI 120 - History of Political Thought
Introduces the Western tradition of political thought, examining a selection of works by major political thinkers. Draws on primary sources, with a textual and conceptual emphasis.
Credits: 4.00
College: College of Arts and Sciences
Restrictions: 
May not be enrolled in one of the following Program Level(s):
Continuing Education

PSCI 220 - Constitutional and Judicial Process
Examines powers conferred by the Constitution within the federal system.
Credits: 3.00
College: College of Arts and Sciences
Restrictions: 
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: PSCI 110 Minimum Grade: D

PSCI 130 - Research Methods in Political Science I
Introduction to basic principles of political science writing and research design. Students learn how to locate, use, and evaluate information from a wide range of government agency websites and political science databases.
Credits: 4.00
College: College of Arts and Sciences
Restrictions: 
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

PSCI 230 - Research Methods in Political Science II
This course is designed to provide the student with concepts, principles and tools of research methodology. Includes projects such as survey and content analysis.
Credits: 4.00
College: College of Arts and Sciences
Restrictions: 
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: PSCI 130 Minimum Grade: D

PSCI 140 - Intro Comp Political Analysis
Examines methods used to compare state political systems with respect to world order values in varying geographic and cultural settings.
Credits: 4.00
College: College of Arts and Sciences
Restrictions: 
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

PSCI 240 - Comparative Government
Examines the political process through the ideology and institutions of major constitutional and totalitarian powers.
Credits: 3.00
College: College of Arts and Sciences
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: PSCI 140 Minimum Grade: D

PSCI 150 - International Politics
Analyzes nation-states in their external relations, including the interaction of the great powers with each other and with emerging areas.
Credits: 4.00
College: College of Arts and Sciences
Restrictions: 
May not be enrolled in one of the following Program Level(s):
Continuing Education

PSCI 243 - Economic Geography
Introduces the role of geography in economic, technological, and urban development, including an analysis of the economic potential of world regions.
Credits: 3.00
College: College of Arts and Sciences
Restrictions: 
May not be enrolled in one of the following Program Level(s):
Continuing Education
May not have the following Classification(s):
Freshman

PSCI 210 - American Government II
Provides a structural analysis of selected social, economic, and political institutions at various levels of government in the American political system.
Credits: 4.00
College: College of Arts and Sciences
Restrictions: 
May not be enrolled in one of the following Program Level(s):

PSCI 245 - Intro 20th -cent Middle East
Investigates the significant ideological, political, economic, and cultural changes the Middle East has experienced in the past century. Aims to challenge common stereotypical images of the governments and people of the region.
Credits: 3.00
College: College of 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

**PSCI 250 - American Foreign Policy**
Examines current issues in American foreign policy, including the assumptions underlying policy goals, the means of achieving them, and the decision-making machinery.
Credits: 3.00
College: College of Arts and Sciences
Department: History & Politics
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter
Pre-Requisites: PSCI 150 Minimum Grade: D

**PSCI 255 - International Political Economics**
Analyzes the contradiction between the political-military world and the newly emerging trading world, and its impact on future global political systems.
Credits: 4.00
College: College of 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

**PSCI 270 - Problems of Individual Liberty and Government Authority**
Examines the relationship between personal freedom and a just society from a variety of perspectives, all of which are designed to serve as an introduction to history and politics.
Credits: 3.00
College: College of 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: PSCI 120 Minimum Grade: D

**PSCI 272 - Contemporary Political Issues**
Examines a current policy issue in its political context. See departmental brochure for subject scheduled in a particular term. May be repeated for credit.
Credits: 3.00
College: College of 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

**PSCI 310 - US Political Party/Pressure Grp**
Examines the organization and function of political parties and pressure groups and their impact on the American political system.
Credits: 3.00
College: College of 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

**PSCI 313 - State & Local Government**
Examines major political, social, and economic problems of state, local, and metropolitan governments.
Credits: 3.00
College: College of 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

**PSCI 315 - Public Administration**
Covers preparatory skills for careers in public service, including personnel administration, decision-making, and communications.
Credits: 3.00
College: College of 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

**PSCI 317 - Legislative Behavior**
Investigates the roles, rules, procedures, and behavior of legislative bodies and their members. Emphasizes the U.S. Congress, but uses a comparative approach to investigate state, local, and international bodies.
Credits: 3.00
College: College of 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

**PSCI 319 - Executive Behavior**
Covers dynamics of behavior within bureaucracies, both public and private, with emphasis on the role of the chief executive.
Credits: 3.00
College: College of 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

PSCI 323 - Comparative Political Thought
Studies modern political thinkers from African, Asian, Latin American, and other traditions of political thought. Uses a textual and conceptual emphasis, but also considers the political movements and social practices that have embraced or given birth to the works of the selected authors.
Credits: 3.00
College: College of 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

PSCI 327 - Democratic Theory
Examines the works of various classical and contemporary thinkers on the nature, justification, and practice of democracy. Emphasizes matters of liberty, equality, participation, and social choice.
Credits: 3.00
College: College of 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

PSCI 329 - Theories of Justice
Examines the nature and realization of justice in modern societies, with special attention to contemporary questions of civil rights.
Credits: 3.00
College: College of 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

PSCI 330 - Public Opinion & Propaganda
Examines public opinion and propaganda from a variety of perspectives, including the process of opinion formations and change and its role in the development of public policy and methods of measurement and analysis of public opinion.
Credits: 3.00
College: College of 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

PSCI 331 - Environmental Politics
Examines environmental politics, focusing on the United States. Solving environmental problems is not simply a question of using available science and technology; rather, proposals to combat environmental degradation confront political context that may or may not favor the aims of environmental policy. Understanding politics is therefore indispensable for effective environmental problem-solving.
Credits: 3.00
College: College of Arts and Sciences
Department: History & Politics
Restrictions:
   Must be enrolled in one of the following Program Level(s):
   Undergraduate Quarter

PSCI 335 - Political Communication
Introduces an investigation of the relationship between politics and communication, with the goal of developing an understanding of political communication's role in election campaigns, news coverage, political debates, political advertising, and "normal" portrayals of the political system through media and interpersonal communication.
Credits: 3.00
College: College of 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

PSCI 340 - Politics of Developing Nations
Analyzes problems of political and economic development (modernization) in the Third World, with the focus on Africa.
Credits: 3.00
College: College of 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

PSCI 345 - Compar Politics Middle East
Introduces students to political issues and challenges that face Middle Eastern men and women and deepens their understanding of comparative politics in non-Western cultures and nations. Analyzes such common problems as nationalism, religion, and state/society relations, then examines in depth four countries representing various regimes. Assumes some familiarity with Middle Eastern history and concentrates primarily on contemporary politics and political economy.
Credits: 3.00
College: College of 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
PSCI 351 - International Organizations
The goal of this course is to present an overview of the nature and function of international organization in world politics. The role of the United Nations and its agencies are highlighted, but other organizations are considered. Students gain an understanding of how international life is structured through these institutions.
Credits: 3.00
College: College of Arts and Sciences
Department: History & Politics
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

PSCI 352 - Ethics and International Relations
Are ethics relevant in world politics, or are power and survival the only concerns? This course considers the main moral issues facing the international community. Topics include the "just war" tradition, human rights, humanitarian intervention, and what rich countries owe the poor.
Credits: 3.00
College: College of Arts and Sciences
Department: History & Politics
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

PSCI 353 - International Human Rights
This course examines the origin of the international human rights movement after World War II, and discuss key issues confronting the international community today. These include genocide, political repression, the rights of women, and religious and cultural minorities. It also considers the moral basis of the rights ideal.
Credits: 3.00
College: College of Arts and Sciences
Department: History & Politics
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

PSCI 354 - US & the Third World
Analyzes American foreign policy since 1945 with particular emphasis on the United States rise to power as the major influence in the developing world of Africa, Asia, Latin America, and the Middle East.
Credits: 3.00
College: College of 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

PSCI 357 - The European Union
This course combines an introduction to the history and institutions of the European Union with a special analysis of EU enlargement and institutional reform.
Credits: 3.00
College: College of Arts and Sciences
Department: History & Politics
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

PSCI 358 - Political Economy of Japan
Examines Japanese political economy on a global scale, focusing on her economic and trade relations with the United States, the Soviet Union, China, and Western Europe.
Credits: 3.00
College: College of 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

PSCI 363 - Civil Liberties
Examines protections afforded the individual under the Constitution.
Credits: 3.00
College: College of 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

PSCI 365 - Politics, Law, & Justice
Examines justice as politically determined, including the personnel, policies, and practices of units of the legal system, especially civil, criminal, and juvenile courts in urban areas.
Credits: 3.00
College: College of 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

PSCI 367 - International Law
Examines the legal norms, codes resolutions, treaties conventions, court decisions, customs and other sources that comprised international law. Provides analysis of applications, especially in Europe.
Credits: 3.00
College: College of 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

PSCI 370 - Topics in Public Policy
Provides an in-depth exploration of an important public-policy issue or issue area in American or international life. Explores the origins,
development, alternatives, and future consequences of an issue within the context of a political system. May be repeated for credit.
Credits: 3.00
College: College of 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

PSCI 371 - Science, Technology, & Public Policy
Examines the political effects of technological change, including public policy efforts to affect the impact of scientific development. Covers topics including atomic energy, electronic communications, and weapons development.
Credits: 3.00
College: College of 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

PSCI 372 - Urban Politics
Course focuses on classic texts that deal with the nature of urban society, politics and power in the urban context, and urban political economy. Looks particularly at American cities.
Credits: 3.00
College: College of Arts and Sciences
Department: History & Politics

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

PSCI 373 - American Policy Process
Course takes students from the point of policy formulation in Congress and the White House, to the point of policy implementation in one of the Cabinet departments. Specific policy areas covered include education, welfare, transportation, housing, urban development, and agriculture.
Credits: 3.00
College: College of 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: PSCI 110 Minimum Grade: D or PSCI 210 Minimum Grade: D

PSCI 374 - Politics of Sport
The material in this course comes from a variety of disciplines and schools of thought with political science serving as an overarching framework. Issues covered include ethnicity, gender, race, nationalism, globalism, economics, and class.
Credits: 3.00
College: College of Arts and Sciences
Department: History & Politics

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

PSCI 470 - Jun Seminar Political Science
A research seminar directed by a political scientist. 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: College of Arts and Sciences
Department: History & Politics

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

Must have the following Classification(s):
Junior
Senior

PSCI 472 - Spc Studies Political Science
Provides supervised individual study of special subjects in political science. May be repeated for credit.
Credits: 12.00
College: College of 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

PSCI 490 - Senior Seminar I
Requires an intensive research project supervised by a political scientist. This is a writing intensive course.
Credits: 3.00
College: College of 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

PSCI 491 - Senior Seminar II
Requires completion of the project begun in PSCI 490. This is a writing intensive course.
Credits: 3.00
College: College of 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: PSCI 490 Minimum Grade: D

PSCI 492 - Political Science Honors Thesis I
Students develop and begin an in-depth research project under the supervision of a political scientist. Course is restricted to seniors with a minimum 3.30 GPA.

Credits: 3.00
College: College of 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):
Political Science
Must have the following Classification(s):
Senior
Pre-Requisites: PSCI 210 Minimum Grade: D and PSCI 220 Minimum Grade: D and PSCI 230 Minimum Grade: D and PSCI 240 Minimum Grade: D and PSCI 250 Minimum Grade: D and PSCI 270 Minimum Grade: D

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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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

**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: College of 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 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: College of 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: College of 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: College of 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
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: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: Psychology

PSY 256 - 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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):

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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 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: College of 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 )

**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: College of 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: College of 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: College of 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 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: College of 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

**PSY 370 - Forensic Psychology**
This course describes the psychological processes involved in the legal system. The material delves into the growing field of psychological study and application in the legal field.
Credits: 3.00
College: College of 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: College of 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 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: College of 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 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: College of 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)

**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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: Psychology
Restrictions:
May not be enrolled in one of the following Program Level(s): Continuing Education

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: College of 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: College of 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: College of 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: College of 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: College of 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: Convrs & 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:

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

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: College of 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 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: College of 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: College of 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

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Provides “practical wisdom” in recognizing, analyzing, and anticipating psychological, sociological, technological, and economic changes of work systems.
Credits: 3.00
College: College of 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: College of 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: College of 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: College of 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: College of 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 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 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: College of 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: College of 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 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

**SOC 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: College of 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: College of 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 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: College of 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/Intn'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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 - Compter-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: College of 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: College of 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: College of 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: College of 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 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: College of 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: College of 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

**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: College of 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 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: College of 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: College of 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

**Spanish Courses**

**SPAN 101 - Spanish I**
Introductory Spanish. Includes listening, speaking, reading, and writing. Offered all terms.
Credits: 4.00
College: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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/Spa 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: College of 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: College of 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: College of 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: College of 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: College of 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: College of 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 371 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: College of 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
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: College of 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):
**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: College of 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.

**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: College of 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: College of Arts and Sciences
Department: Women's Studies
Restrictions:
May not be enrolled in one of the following Program Level(s): Continuing Education

**WMST 299 - Indpend Study 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. 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

**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: College of 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 471 - Spec St Spanish Civilization**
Pre-Freshman
SPAN - Spec
Restrictions:
Department:
WMST
Continuing Credits:
Independent
SPAN 471 - 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
Must be enrolled in one of the following Program Level(s):
Undergraduate Quarter

**WMST 480 - 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: College of Arts and Sciences
Department: Culture and Communication
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

**WMST 499 - Special Topics in Spanish**
SPAN - Spec
Restrictions:
Department:
WMST
Continuing Credits:
Independent
SPAN 371 Minimum Grade: D

**WMST 200 - 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: College of Arts and Sciences
Department: Women's Studies
Restrictions:
May not be enrolled in one of the following Program Level(s):
Continuing Education

**WMST 201 - 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: College of 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
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: College of 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):
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: College of 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.
Credits: 3.00
College: College of 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: College of 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 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: College of 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: College of 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: College of 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 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: College of 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

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: College of 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

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: College of 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: College of Arts and Sciences