ANTHROPOLOGY

ANTH 390-080 HNRS:CLQ: LIFE IN TRIBES
Examines the nature and evolution of tribal societies in the past and present communities of up to a few thousand people linked by kinship, language and culture in diverse and flexible political structures very unlike common stereotypes involving tribal “chiefs” and “warriors”.

ARTS & SCIENCE

ARSC 367-050 RESEARCH IN AREA STUDIES: FOOD, CULTURE & SOCIETY
An interdisciplinary lecture series offered by the Area Studies Programs - African Studies, East Asian Studies, Continental European Studies and Latin American Studies. Faculty will discuss their research related to food, culture and society around the world.

ART HISTORY

ARTH 367-010 ISLAM AND ART IN AFRICA
Islam supposedly proscribes the representation of images. What then happened when Islam collided with Africa's penchant for something like a "represent free(ly) or die"? Looks especially to West Africa in the 18th-21st centuries for its answers.

ARTH 431/631-010 SEM: ARTS & ARCHITECTURE OF PENNSYLVANIA GERMANS
The distinctive regional culture of the Pennsylvania-Germans in the 18th and 19th centuries examined through the study of their cultural landscapes, houses and other buildings, decorative arts, gravestones, and manuscript traditions. Explores themes of ethnic aesthetic expression, sectarian culture, community identity, and the functions of art in everyday life.

ARTH 616-010 SEM: AUTHORSHIP & AUTHENTICITY IN BAROQUE ART
Methods of identifying and analyzing objects and how these methods illuminate other art-historical approaches. Topics include: copy versus original in 17th-c. art criticism; the role and image of the connoisseur; preparatory process; function(typology); condition/ restoration; scientific analysis. Field trips and guest speakers will be scheduled.

ARTH 620-010 SEM: CONSTRUCTING THE HISTORIES OF 20th CENTURY AFRICAN ART
Seminar juxtaposes recent critical histories of modern and contemporary African art. Are they adequate to the question whether to locate central ideas of modernism theory within a context that diverges significantly from European/North American trajectories?

ARTH 621-011 SEM: THEORY & PRACTICE OF ROMANTICISM: ART & CULTURE 1750’s-1850’s
Explores issues, contexts, and theoretical models relating to the artistic and intellectual current of Romanticism through a choice of artists and critical texts in Germany, England and France—Friedrich, Runge, Géricault, Baudelaire, Constable, Schiller.

ARTH 636-010 SEM: RETHINKING AMERICAN GENRE
This seminar will examine American genre across the 19th century into the early 20th, expecting to redefine its meaning by looking with a fresh eye at paintings, sculptures, and photographs. We will take into account for each image/object the artist, viewers, and historical context.

ARTH 640-010 SEM: ART & RELIGION IN THE NEW WORLD
Offered in conjunction with the “Mundos Nuevos” exhibition at the Philadelphia Museum of Art, this seminar analyzes a broad range of artifacts created in Latin America from 1492 to the 19th century according to the particular religious system(s) in which they were created.
BIOLOGICAL SCIENCES

BISC 667-010 RESEARCH METHODS IN BIOLOGY
Survey of numerical techniques commonly used in the design and analysis of biological experiments. Emphasizes real biological data. Includes tests of independence and goodness-of-fit; analysis of variance; linear, curvilinear and multiple regression; and non-parametric tests.

CHEMICAL ENGINEERING

CHEG 667-010 CELLULAR ENGINEERING
Understand the quantitative principles that govern the functioning of eukaryotic cells. Includes receptor-ligand binding, ligand internalization, transcription, synthetic biology, cell adhesion and motility.

CHEG 867-011 CHEMICAL ENGINEERING PRINCIPLES
Equip graduate students with the necessary applied mathematical background emerging from a discussion of Chemical Engineering Principles in Kinetics, Thermodynamics, and Transport phenomena. Linear algebra, ordinary differential equations, and stochastic differential equations.

CHEG 867-050/CHEM 867-050/BISC 867-050/ BUAD 867-050 MULTIDISCIPLINARY BIOTECHNOLOGY
Designed to facilitate learning skills for solving broad technological challenges via teamwork in science, engineering, and business administration. Features industrial and academic speakers. A term research project with team effort on written and oral components will reinforce course objectives.

CHEMISTRY & BIOCHEMISTRY

CHEM 667-010 PHYSICAL CHEMISTRY III
Survey of topics in modern physical chemistry including solids, surfaces, polymers, colloids (“nanostructures”) and interfaces. Includes elementary statistical thermodynamics and molecular orbital theory with the intention of providing an elementary introduction to the use of the such powerful tools modern computational chemistry molecular dynamics calculations (eg. as in the Insight© suite of programs) and molecular orbital calculations (as in the Gaussian© program). Prereq: CHEM 443.

CHEM 874-010 TPCS: STRUCTURE & PROPERTIES OF SOLID SURFACES
Involves lectures and laboratory work in a surface science facility of Professor Teplyakov. Includes several computational approaches in surface science.

CIVIL & ENVIRONMENTAL ENGINEERING

CIEG 467/667-050 GEOTECHNICAL & FOUNDATION DESIGN
Addresses the geotechnical design and construction monitoring of: earth slope stability, embankment construction and settlement, shallow foundations, driven piles and drilled shafts. Includes practical aspects of subsurface investigations, lab testing and the selection of soil and rock design properties.

CIEG 467/667-051 TRAFFIC ENGINEERING & MODELING
Introduces students with senior and graduate standing to the most important theoretical and practical aspects of traffic engineering, including the theory and practice of the most commonly used computer software tools in the field. The Highway Capacity Software applications, Signal Optimization Software packages (PASSERII) including the theory of signal optimization, and urban network simulation model topics, along with associated software programs such as CORSIM and SYNCHRO.

CIEG 467/667-053 APPLIED ENVIRONMENTAL STATISTICS & DATA ANALYSIS
Statistical and graphical tools useful for practicing environmental scientists and engineers. Modern computer based methods using Excel: tests of significance, maximum likelihood estimates; bootstrap based
confidence limits; linear, nonlinear and errors-in-variables regression; censored (less/greater than) data; probability and box and whisker plots; analysis of variance and general linear models.

**CIEG 667-011 INTRODUCTION TO COASTAL ENGINEERING**
Problems of design in the ocean and coastal environment. Mechanics of wave motion, tides and storm surge, littoral processes, wave forces on structures and design of coastal structures. Includes observations of hydraulic model tests in the Ocean Engineering Lab.

**CIEG 667-012 RESILIENCE ENGINEERING**
Discusses the characteristics of resilient systems and ways to measure and monitor the resilience of civil infrastructure systems.

**CIEG 667-052 CIVIL INFRASTRUCTURE SYSTEMS**
Presents a unified approach to the management of civil infrastructure systems. Includes analytical methods, development of data collection technologies, prioritization and optimization. Introduces software tools for infrastructure management decision making. Types of infrastructure include, pavements, bridges, drainage and sewer systems, water supply systems and power supply facilities.

**COMPUTER & INFORMATION SCIENCES**

**CISC 367-050 TPCS: PROGRAMMING PRACTICUM: RAPID PROTOTYPING**
Using the problem specifications of the ACM International Programming Contest as a base of examples, we will hone the algorithm design, data structure library usage, and debugging skills of the programmer's craft. Meets as a 3 hour lab. Prereq: CISC 220

**CISC 459/659-010 TPCS: SIMULATION OF COMPUTER NETWORKS**
Modeling and computer simulation of discrete systems using discrete even simulation techniques. Application to the performance evaluation and modeling of computer networks and networking protocols. Study and use of simulation systems such as OPNET, Qualnet, and ns-2. For a more detailed description please go to: http://www.cis.udel.edu/~sethi/ci. Prereq: CISC450 or CISC650

**CISC 849-010 TPCS: COMPUTATIONAL PHOTOGRAPHY & VIDEOS**
Covers current computational methods of digital imaging that overcomes the traditional limitations of a camera and enables novel imaging applications. Provides a broad overview of the theory and practice in non-traditional camera models, image capturing devices, lighting and shading, and post-processing algorithms for generating compelling pictures and for extracting the scene geometries. Prereq: CISC640 or equivalent

**CISC 879-010 TPCS: ADVANCED TOPICS IN DISTRIBUTED SYSTEMS**
Covers recent developments in Distributed Systems research from Grid Computing to advanced network-centric "middleware".

**COMMUNICATIONS**

**COMM 200-410 TPCS: CONFLICT & YOU**
Explores the various aspects of conflict, as well as the different ways individuals approach conflict. Includes how conflict is defined, ways of coping with conflict, productive and unproductive conflict, and strategies for coping with conflict.

**COMM 320-080 TPCS: COMMUNICATION PROCESSES**
Honors Pro-seminar. Engages students in a detailed study of communication research and conducting their own research projects.

**COMM 418/618-010 TPCS: PUBLIC OPINION AND COMMUNICATION**
Introduces students to the nature and measurement of public opinion. Focuses on the role of mass and interpersonal communication in the formation of public opinion, processes of opinion formation, change,
and reinforcement, and approaches to analyzing public opinion.

COMM 418-011 TPCS: BROADCAST PROGRAMMING
Principles and strategies of programming for broadcasting and cable. Includes audience feedback, network and local programming, syndication, and specialized programming. Analysis of TV ratings. Covers strategies for primetime programming. Looks at the relationship between networks and their affiliates. Financial aspects of buying syndicated packages, and business aspects of cable TV.

COMM 642-010 TPCS: THEORY & RESEARCH IN GROUP DISCUSSION
Examination of theory and research in key areas of study in group discussion, including practice in performing group communication research. Emphasizes the role, if any, the content and structure of communication plays in discussion outcomes.

CRIMINAL JUSTICE

CRJU 367-410 PRISONER RE-ENTRY
Utilizes theories of desistance to examine issues of prisoners returning from prison to the community. Focus on drug treatment, probation and parole, community response and offender adaptation. Emphasis on how politics shapes the re-entry process and hinders and/or helps the offender and the community.

CRJU 467-013/SOCI 467-013/BAMS 467-013 CAPITAL PUNISHMENT & AMERICAN CULTURE
Considers connections between capital punishment and culture in the United States. Explores the meaning of capital punishment by examining the way it is represented in law, politics, and popular media. Emphasis on questions concerning inequality and capital punishment.

ECONOMICS

ECON 467-010 ECONOMICS OF FINANCIAL MARKETS
Examines the relevant economic theory and empirical research of what causes booms and crashes in financial markets, and how interest rates and securities prices are determined. Includes risk pricing and management, portfolio diversification, and “irrational exuberance” in financial markets. PREREQ: ECON 302 and one of ECON251, 300, or 301.

ENGINEERING TECHNOLOGY

EGTE 467-440 GREEN TECHNOLOGY DESIGN FOR STORMWATER MANAGEMENT
Design of innovative stormwater management systems using green technology best management practices that utilize features of the natural landscape, mimic predevelopment hydrology and limit disturbance of the site under development. Emphasizes practices that protect natural stream habitat, limit stream channel erosion and promote recharge of groundwater. Prereq: EGTE 321 or CIEG 440 or permission of instructor.

ELECTRICAL ENGINEERING

ELEG 467/667-011 INTRODUCTION TO MEDICAL IMAGING SYSTEMS
Covers the basic physics, instrumentation, system design, and image reconstruction algorithms for the following modalities: radiography, x-ray computed tomography (CT), magnetic resonance imaging (MRI), real-time ultrasound, optical coherence tomography (OCT), and positron emission tomography (PET).

ELEG 467/667-012 ADVANCED NANODEVICES
Covers selected topics in solid-based nanoelectronic devices for logic, storage and data transmission applications. Utilizes basic knowledge of materials and solid state physics to analyze the concepts and properties of nanodevices. The knowledge of magnetic, ferroelectric and semiconducting materials provides the basis for understanding the devices and their applications.

ELEG 467/667-014 MEMS THEORY IN FABRICATION
Explores the world of silicon based micro-electro-mechanical systems. Includes the details of how to design, fabricate micro-machines smaller than the size of one human hair. Includes applications of micro-machines for automotive, biomedical, space and micro-robots.

**ELEG 667-010 ADVANCED NANOSTRUCTURE DEVICES**
Describes the dynamic behavior of high performance optoelectronic devices that are based on heterostructures and nanostructures. Builds on the fundamental concepts introduced in ELEG 646, or equivalent. Develops the impact on device properties of quantum confinement and conduction in nanostructures.

**ELEG 667-013 PHYSICAL PROPERTIES OF MATERIALS**
Basic models of electrical, magnetic optical and thermal properties of solid materials. Introduction to quantum physics to describe electronic structure of atoms, atomic bonds and crystals. Electronic, magnetic and optical effects in metals, semiconductors, ceramics, polymers and amorphous materials. Operation of basic electronic devices and semiconductor. Prereq: MSEG 302 and PHYS 208.

**ELEG 867-010 DETECTION AND ESTIMATION THEORY**
Classical and Bayesian estimation techniques including minimum variance, maximum likelihood, least squares, Kalman filters, and nonlinear/nonGaussian methods. Detection includes statistical decision theory, Neyman-Pearson, Bayes risk, and multiple hypothesis testing. Prereqs: ELEG636 or a graduate course in probability and stochastic processes or special approval from instructor.

**ENGLISH**

**ENGL/WOMS 380-010 LATE VICTORIAN WOMEN WRITERS**
Focus on British women writers of the 1880s and 1890s, especially on those who used their writing to address contemporary social issues and to inspire political change. Includes works by and about women workers; women in higher education; women confronting British imperial policy; women in journalism; and who joined the growing feminist movements. Prereq: ENGL 110.

**ENTOMOLOGY & WILDLIFE CONSERVATION**

**ENWC 267-010 FOREST BIOLOGY & DENDROLOGY**
Introduction to the identification and silvics of native woody plants of North America with an emphasis on species native to the Eastern United States.

**ENWC 467/667-010 WILDLIFE HABITAT MANAGEMENT**
Basic principles and methods of habitat/vegetation manipulation to enhance wildlife habitat in forests, grasslands, agriculture, prairies, and wetlands. Weekly labs include some long field trips and hands-on habitat manipulation across the mid-Atlantic region. Field clothes required. Prereq: ENWC 325.

**ENWC 467/667-011 CONSERVATION BIOLOGY**
Lectures and in-class discussions will address issues related to the conservation of biological diversity. Topics include defining biodiversity, identifying global biodiversity hotspots, macroevolution, population viability analysis, species reintroductions, current and historic extinctions, and reserve design. Prereq: ENWC 325.

**FOREIGN LANGUAGES & LITERATURES**

**FLLT 367-010/LING 367-010 INTRODUCTION TO THE STUDY OF LANGUAGES AND LITERATURE**
Introduces foreign language and literature majors to the methods and practice of the systematic study of language and literature, known in the civilized world as philology. Equips students with concepts and tools necessary to study language as a medium of creative thought in order to read and understand literature. Introduces students to the techniques of textual criticism and to the fundamentals of literary analysis, interpretation, and comparison developed within the Western tradition.
FOOD SCIENCE

FOSC 667-050 INNOVATIVE & EMERGING FOOD PROCESSING & PRESERVATION TECHNOLOGIES
Emphasis on the areas of high pressure processing, irradiation, pulsed electric fields, ultraviolet light radiation, ozone, and antimicrobial packaging. Reviews topics of food shelf life and stability, food packaging, and thermal processing, essential for food processing.

GEOGRAPHY

GEOG 667-010 GEOGRAPHIC INFORMATION SYSTEMS
Describes the fundamental spatial concepts and principles of GIS with hands-on training in the use of a GIS. Emphasis on using "real" world data and the steps necessary in using the GIS to solve geographical problems. Uses ESRI's suite of software packages.

GEOG 667-011 GIS FOR EDUCATORS
Up-to-date methods for analyzing and solving problems. K-12 educators learn the essentials of good maps and will use GIS (Geographic Information Systems) to generate practical and useful teaching tools and student projects for use in their own classrooms. Requires only a basic level of computer skill.

GEOLOGY

GEOL 467/667-020 COASTAL GEOPHYSICAL METHODS
Introduction to geophysical sensor systems including theory, fieldwork, and lab analysis components. Systems include: swath bathymetry, side-scan sonar, seismic profiling, ground penetrating radar (GPR), LIDAR, chirp sub-bottom profiling, and AUV's.

GEOL 667-030 LAB VIEW FOR EARTH & MARINE SCIENCE
A hands-on primer exploring the graphical programming language, LabVIEW, for the development of earth and oceanographic observation systems, real-time instrumentation, data analysis, and computer modeling.

HEALTH & EXERCISE SCIENCES

HESC 467-010 APPLIED PHYSIOLOGY OF ACTIVITY
Functioning of the body during exercise, including the integration of body systems during exercise, work, and sport activities and the ways in which the environment impacts performance.

HESC 667-050 VASCULAR FUNCTION IN HEALTH & DISEASES
Study of blood flow through the arterial system, including large artery elasticity, conduit artery function, and arteriole function. Emphasizes alterations in arterial structure and function as a result of aging and diseases such as hypertension and atherosclerosis.

HISTORY

HIST 367-010 BRITAIN, 1714-1870
Explores British political, social and cultural history in an era that saw the development of parliamentary democracy, the first industrial revolution, the American and French Revolutions, the establishment of British power in India, and the birth of modern conservatism, liberalism, radicalism and feminism.

HIST 367-410 HISTORY OF TOURISM IN AMERICA
Examines the origins, development, promotion, and changing nature and impact of tourism in the United States from the early 19th century to World War II, with references to current tourism forms and trends. Focuses on economic, social, cultural, and art/material culture history through illustrated lectures, selected readings and discussions, visual materials, and student written and oral assignments.
HIST 367-411 HISTORY OF WILMINGTON
Examines the history of Wilmington from the Swedish settlement of Ft. Christina in 1638 to the present time and Wilmington’s emergence as a mid-sized industrial city. Emphasizes the issues connected with urban growth and development. Studies Wilmington’s history in the context of mid-Atlantic American history.

HIST 439-010/WOMS 439-010/HIST 667-010 WOMEN & REVOLUTION IN AFRICA
Discusses the critical roles played by women in African revolutionary movements. Did these revolutions liberate or betray women? Did the fortunes of women vary in the post-independent period due to the different ideologies adopted during the struggle for national liberation?

LIBERAL STUDIES

MALS 667-050 SOCIAL CONTROVERSIES IN BIOTECHNOLOGY
Explores and debates social and ethical issues raised by advances in biotechnology.

MALS 667-051 DRAMA IN PERFORMANCE
Focuses on five campus productions staged by the Professional Theatre Training Program. Includes play trips to Wilmington, Philadelphia and possibly New York. Features visits by actors, directors, and playwrights. May include watching rehearsals in Hartshorn Hall.

MALS 667-430 READING THE MODERN POEM
Examines the dramatic nature of modern and contemporary poetry and discusses poets and their works. Includes presenting poems aloud and discussing both poems and presentations.

MARINE STUDIES

MAST 827-010 TPCS: FISH BIOLOGY
Focuses on current topics in fish biology and fisheries research. Students lead discussions by representing topical seminars, critiquing research papers from the current literature, or presenting their thesis or dissertation research.

MAST 827-019 TPCS: ECOLOGY & EVOLUTION OF CORAL REEFS
Introduction to our present understanding of coral reefs, including the physiology, ecology, and evolution of reef building corals and the communities that they form. Includes the potential impact of human populations on reef systems and the status of the emerging fields of restoration and conservation biology of coral reefs.

MATERIALS SCIENCE ENGINEERING

MSEG 607-010 PHYSICAL PROPERTIES OF MATERIALS
Basic models of electrical, magnetic optical and thermal properties of solid materials. Introduction to quantum physics to describe electronic structure of atoms, atomic bonds and crystals. Electronic, magnetic and optical effects in metals, semiconductors, ceramics, polymers and amorphous materials. Operation of basic electronic devices and semiconductor. Prereq: MSEG 302 and PHYS 208.

MUSEUM STUDIES

MSST 667-010 INTRODUCTION TO MUSEUMS
Provides an introduction to the history of museums to the present day and examines selected current issues in museums management.

MUSIC

MUSC 367-010 MUSIC THEORY PEDAGOGY PRACTIUM
A place holder for undergraduate teaching assistantship. May be repeated for credit.

**MUSC 667-010: ADVANCED CHORAL CONDUCTING**
Study of the conducting gesture as it relates to efficiency in the rehearsal and quality choral sound as based upon musical structure and style. Prereq: Mastery of basic conducting technique as determined by the instructor.

**MUSC 667-011 VOCAL PEDAGOGY**
Advanced study of the anatomy, physiology, and acoustics of the singing voice with an overview of pedagogical literature.

**PHYSICAL THERAPY**

**PHYT 667-010 MS ASSESSMENT CLINIC**
Designed for students to gain extensive knowledge in evaluation, treatment and management techniques of individuals with a complicated neurological disorder. Includes heavily involvement in working with other health care professionals in a multi-disciplinary approach.

**PLANT & SOIL SCIENCES**

**PLSC 467/667-010/GEOL 467/667-010 RACE & SEXUALITY**
Soils as historical objects in natural and human-managed ecosystems. Soil diversity, its genetic relationship to physical, chemical, and biological processes. Co-development of soils and landforms. Feedbacks between soil formation and local to global biogeochemical cycles and climate changes. Two optional weekend field trips. Prereq: PLSC 204 or GEOL 107.

**PLSC 667-011 ADVANCED PLANT GENETICS**
An advanced survey of genetics in higher plants, including molecular methods of plant biotechnology. Includes genome composition and evolution, disease resistance, transposable elements and retrotransposons, DNA methylation and epigenetics, quantitative traits, chromosome structure and gene expression. Prereq: PLSC 300 and PLSC 306.

**SOCIOLOGY**

**SOCI 467-010/BAMS 467-010/WOMS 467-010 RACE & SEXUALITY**
Explores the connections between cultural constructions of racial, gender and sexual identity. Examines identity construction as a relational process by seeing how the assertion of one pole of the black/white, feminine/masculine and gay/straight binaries impacts the other pole.

**SOCI 467-011/WOMS 467-010 RACE & GENDER BETWEEN THE WARS**
Explores the path breaking period in American society between WWI and WWII. Examines changes in race and gender relations during the great migration, the roaring twenties, the great depression, and the wars from the perspective of both contemporary and recent sociological literature.

**SOCI 667-010 RACE, CLASS & GENDER**
Examines the intersecting inequality created by race, class, and gender stratification. Includes economic restructuring and the labor market, increased immigration and population diversity, interest and the growth of identity movement, and new forms of the family-work nexus resulting from theses social changes.

**SOCI 667-011 GENDER, CRIME & DEVIANCE**
Designed to explore the theories and empirical research that relate to gender, deviance and social control, and crime. Examines policy implications of these issues, paying particular attention to how multiple statuses (race, gender, social class, etc.) effect social and institutional responses.

**SOCI 667-050 TEACHING IN THE SOCIAL SCIENCES**
Primary objective of this seminar is to stimulate interest in talk about the challenges of teaching, among faculty and graduate students in Psychology, Political Science and Sociology, each of which faces challenges in communicating our disciplines to undergraduates.

THEATRE

THEA 267-410 INTRODUCTION TO FILM ACTING
Examines film acting from a film critic’s perspective. Showcases various aspects of the craft and includes supplementary commentary from the instructor’s own extensive knowledge (gained through years of interviews with actors and/or directors themselves). Recognizes and analyzes Aristotle’s “Six Elements of Drama” (plot, character, theme, diction, temp-rhythm, and spectacle) using lectures and examples from films.

URBAN AFFAIRS & PUBLIC POLICY

UAPP 667-010 QUALITATIVE METHODS FOR POLICY ANALYSIS
Offers an introduction to qualitative research methods within the context of analyzing public policy. Methodologically, students learn how to conceptualize a research problem, design and conduct a small-scale interpretive policy study through collecting data, apply basic qualitative analytic procedures, and interpret findings.

UAPP 667-011 ENTERPRISE SYSTEMS FOR PUBLIC & NONPROFIT ORGANIZATIONS
Focuses on managerial and policy aspects of creating and managing modern information technology enabled public and non-profit sector organizations through the use of information systems that are collectively termed Enterprise Resource Planning Systems (ERP). These information systems assist in the management of records.

UAPP 667-053 CAPITAL BUDGETING
Covers the rationale and process for capital budgeting in the public and non profit sectors including capital improvement programming and prioritizing capital projects. Provides an introduction to the development of a capital financing strategy including both pay-as-go and debt financing.

UAPP 667-054 DEBT MANAGEMENT
Focuses on debt management in the public and non profit sectors as a method for financing capital projects. Includes various types of debt, bond ratings, planning and structuring debt as well as pricing and selling both tax exempt and taxable debt.

UAPP 667-055 INTRODUCTION TO PROCUREMENT
Focuses on the basics of procurement and its relationship to both the financial management and executive management functions in public and non profit agencies. Includes the legal aspects of procurement, developing specifications, securing competition, the competitive bidding process, alternatives to competitive bidding and contract administration.

UAPP 867-050 EPIDEMIOLOGY AND PUBLIC POLICY
Introduces methods of epidemiologic investigation of diseases and other health-related disorders for health policy analysis. Covers methods for monitoring, surveillance, casual inference, and different types of studies, including randomized trials, case-control studies, and cohort studies. Labs provide experience in measurement of morbidity and mortality, health services evaluation, sensitivity and specificity, risk assessment.

UNIVERSITY STUDIES

UNIV 167-310 AA IN ARTS SOPHOMORE COLLOQUIUM
The first step in preparing Associate in Arts students for successful relocation to the Newark campus. Focuses on informed discussions regarding majors, career options, and academic expectations. Prepares students planning to pursue their Baccalaureate Degree.
WOMEN'S STUDIES

WOMS 290-010 GENDER IN INTERNATIONAL FILMS
Explores women's experience through five feature films from or about women and/or gender cross culturally, students will view the films, read a short article pertaining to each film and discuss and/or react to themes and issues suggested by the film.

WOMS 367-010 CROSS-DRESSING WOMEN
Looks at gender, gender roles, and sexuality in a variety of cultures and historical periods through the lens of clothing. Analyzes women who have "cross-dressed"--i.e., worn clothing associated with masculinity--and their many reasons for doing so, as well as representations of cross-dressed women in film, theatre, fiction, etc.