

Supplemental Course Descriptions, Spring 2010
(updated November 19, 2009)

ANTHROPOLOGY

ANTH 267-010 ANTHROPOLOGY COLLOQUIUM

Talks by individuals trained in anthropology who work in many contexts: academic, government, business, museum, etc. Shows the full range of what people trained in anthropology DO and how anthropology shaped their view of the world and of their work.

ANTH 367-010 ISSUES AND METHODS OF ARCHAEOLOGICAL RESEARCH

Covers fundamentals of archaeological research methods. Includes cultural resource management archaeology, archaeological research plans and designs, sampling in archaeology, culture, historical analysis, predictive models, experimental archaeology, artifact analysis, research and ethics.

ANTH 367-011,081 THE ANTHROPOLOGY OF CHILDHOOD

Compares childhood anthropologically in cross-cultural and evolutionary perspectives. Examines case studies and compares growing up as a nonhuman primate with our experiences as human children and examines both the experience of childhood and the concept of childhood in cultures around the world.

ART

ART 367-012 SEMINAR: VIDEO ART

Studio production class contextualizing digital video within a tradition of fine art while exposing students to conceptual art, found footage films and experimental, narrative and documentary methodologies. Introduction to time-based media provided through readings, screenings, critiques, and hands-on creation of single-channel videos.

ART HISTORY

ARTH 167-010 RULERS' IMAGES: FROM AUGUSTUS TO WASHINGTON

Rulers from the ancient, medieval and early modern worlds as they were depicted in contemporary artistic and literary works. Rulers' studies include Augustus, Justinian, Saint Louis, Napoleon and Washington.

ARTH 167-011 THE AGE OF IMPRESSIONISM

Introduction to the breakthrough that changed the face of art in France and beyond. The times, the culture and the artistic vanguard of modernity: Manet, Monet, Pissarro, Renoir and Cezanne, and the life that surrounded and inspired them.

ARTH 267-010/BAMS-267-010 AFRICAN AMERICAN ART

Surveys the fine arts produced by people of African descent in the United States from 1863 to the present. In addition to issues regarding identity and aesthetics, our focus will be their negotiation of the art world given its history of racial exclusionism.

ARTH 399-010 EGYPT VS NUBIA: LOVING & WARRING

Nubians were both 'exotic' dancers entertaining Pharaohs, and actual Pharaohs of Egypt itself. Through art and architecture, explores the historical relationship between the two peoples over the centuries, from the founding of Nile Valley towns and cities through the dawn of Christianity.

ARTH 413-010/613 010 RENAISSANCE VILLAS AND GARDENS 1400-1600

Villas can be centers of humanist discourse, entertainment, social ritual, politics, as well as working farms. Examines the impact of antiquity (both formal and literary sources), the meaning of gardens, daily life and material culture, sculptural programs, water games, hydraulic engineering, and concepts of nature.

ARTH 417-010/617-010 THE PAINTER'S PLACE: THE DUTCH REPUBLIC

The primacy and impact of painting in Rembrandt and Vermeer's Dutch Republic examined against the seventeenth-century Dutch painters' many places: the new state; cities and court; townscape and landscape; the lure of Italy; the church; emerging markets; the home; the studio; and the painter's hand and mind.

ARTH 420-010 NOK: NIGERIA'S ANCIENT TERRACOTTAS

The earliest Nok terracottas date to about 900BCE. Who are its Egyptian looking figures? Who its straight haired characters? Who its bird-like humans? Who its Japanese hair-styled women? Seminar constructs an unfamiliar middle 'Africa,' far below the Sahara.

ARTH 423/623-010 WHEN HARLEM WAS IN VOUGE

Explores the impact of changing concepts of race and the currency of blackness on the development of modernism within the Trans-Atlantic world during the period between the two World Wars (1914-1945). Considers expressive culture, material culture and performance, alongside traditional media.

ARTH 440/640 010 ART & RELIGION IN THE NEW WORLD

Studies a broad range of religious monuments and artifacts created in Ibero-America from 1492 to the early 19th century, taking into consideration the hybrid cultural context(s) in which they were produced. Emphasis on the confluence of European, Amerindian, and African traditions.

ARTH 445-010,080 COLUMNS SKY COSMOS IN EAST ASIA

Studying architecture of temple and palaces in East Asia. Course covers from the bronze age to the present. Students learn to discuss architecture in conjunction with East Asian history, and examine development of thousands-year old civilizations through world-class archaeological findings, art, and architectural aesthetics. Fieldtrips.

ARTH 635-010 METHODS AND HISTORIOGRAPHY

Explores the history of American art history, studying the major ideas and methods that have shaped the subfield in relation to broader disciplinary developments.

ARTH 636-010 ART, EROS, AND THE 1960S

Examines the relationship among art, sex, gender and revolution in the 50s and 60s in the US, Latin America, Japan and Europe. The advent of a new international body politic, Eros, constitutes both the theoretical prehistory of the sexual revolution, and the defining episode in the transubstantiation of flesh into politics.

BIOLOGICAL SCIENCES

BISC 467-010 EPIDEMICS & PLAGUES

Covers diseases from the Plague, which ravaged ancient populations, to Mad

Cow Disease, which resulted from recent human activities. Studies the microbiological, medical and societal perspectives. Preq: BISC300.

BIORESOURCE ENGINEERING

BREG 667-010,194,195 AGRICULTURAL AIR POLLUTION

Topics include regulations, air pollution modeling, atmospheric chemistry, climate change, air pollution emissions and control of emissions from beef, swine, dairy, poultry and grain handling and processing operations.

BUSINESS ADMINISTRATION

BUAD 467/667-020 SPREADSHEET MODELING FOR BUSINESS DECISION MAKING

Teaches students to structure, represent, analyze, and solve various business problems using Excel spreadsheets. Examples from marketing, finance, manufacturing, and logistics are used. Requires basic knowledge of Excel.

BUAD 467/667-051 HEALTHCARE DELIVERY & ORGANIZATION

An overview of how health care is organized, delivered (including quality issues), and financed (insurance, provider, payment, and capital formation) in the US, as well as policies and approaches that impact change in Healthcare delivery.

CHEMISTRY

CHEM 367-010 ANALYSIS OF CHEMICAL PROBLEMS

Overview of quantitative chemical calculation methods and applications. Application of differential and integral calculus to solution of chemical problems. Review of elements of linear algebra, vectors, matrices, and operators. Rigorous treatment of statistical methods of data analysis; use of spreadsheet software for data analysis and presentation. Lecture/discussion material integrated with extensive student hands-on problem solving. Prereq: MATH 241 and a year of general chemistry.

CHEM 667-010 BIOCHEMISTRY OF NUCLEIC ACIDS

Course focuses on contemporary problems in nucleic acid chemistry, with a strong emphasis on the chemical aspects of nucleic acid research. Covers the structure and function of nucleic acids, the synthesis and modification of NA/RNA, the repair tolerance of DNA damage, and epigenetic regulation of gene expression. Prereq: CHEM-641.

CHEM 820-010 SPC TPCS IN ANAL CHEM: SURFACE CHEMISTRY

Modern analytical methods of surface chemistry, including XPS, TOF-SIMS, Auger, STM/AFM; concepts of modern surface chemistry, including surface structure and reactivity, over-layer structure and nomenclature, surface diffusion; example applications in biomaterials, catalysis, semiconductors, and environmental surfaces.

CHEM 850-010 X-RAY CRYSTALLOGRAPHY

Covers the basic theory and practice of single crystal X-ray diffraction and the use of space group symmetry, with an emphasis on the practical elements of diffraction data collection and structure solution and refinement. Prereq: CHEM-457 or CHEM-654, or consent of instructor.

CHEM 874-010 SPC TPCS IN PCHEM: BIOMOLECULAR NMR SPECTROSCOPY

Provides an overview of modern NMR theoretical and experimental approaches for solving problems in structural biology, biochemistry and biophysics. Includes introduction to the NMR theory and instrumentation; modern multidimensional NMR experiments; applications to biochemistry and biophysics. Computer laboratory is a major component of this course.

CIVIL & ENVIRONMENTAL ENGINEERING

CIEG 167-011,080 FRESHMAN DESIGN

Introduction to the civil engineering profession and civil design; computer-aided drawing using Microstation. Team design projects. Course integrated with CIEG461 Senior Design.

CIEG 467-010 ADVANCED STRUCTURAL ANALYSIS

Introduction to various methods of analysis of statically indeterminate structures. Force methods and displacement methods are discussed, including method of consistent distortions, equation of three moments, slope deflection, and moment distribution. Discussion of the matrix stiffness method introduced in CIEG 301 is extended to include combined axial and bending members.

CIEG 467/667-013 MODELING ENGINEERING SYSTEMS

Provides students with a fundamental understanding of the mathematical representations of complex systems and methods used to solve them. Topics: the representation and solution to systems represented by systems of linear equations, such as water and power and those constrained to integer solutions, such as transportation. Reviews linear algebra techniques.

CIEG 467-014/CIEG667-014 GEOTECHNICAL ASPECTS OF WASTE CONTAINMENT

Veneer stability of side slopes, anchor trench design, wind uplift of exposed geomembranes, hydraulic performance of containment system through HELP model analyses, filtration design, geomembrane puncture and cushioning techniques, pipe strength and spacing, final cover considerations, horizontal barriers, and construction quality control requirements. Prereq: CIEG320

CIEG 667-011 SLOPE & EMBANKMENT DESIGN

Common slope and embankments problems; site investigation; stress, strength and consolidation concepts; slope stability analyses; landslide investigation; embankment design; stabilizing methods; construction and monitoring; use of software to analyze slope stability and embankment settlement.

CIEG 667-012 EARTHQUAKE ENGINEERING

Introduction to analysis and design of civil structures for earthquakes. Topics include earthquake characteristics, seismic risk analysis, earthquake ground motions, earthquake response spectra, seismic response analysis, base isolated structures, and building codes.

COMPUTER & INFORMATION SCIENCES

CISC 367-010 SERVICE LEARNING: XO LAPTOPS

Programming XO laptops to create learning software for different ages and subjects, consulting with teachers at a regional K-8 school. Participate in open-ended team projects, maintain reflective journals, and hone communication skills. This course has a large service component.

CISC 367-011 DIGITAL INTELLECTUAL PROPERTY

Students will learn about economic, philosophical, social, and technical approaches to intellectual property (15000 BCE to present) then will research contemporary IP issues in software, entertainment, the internet, and biotechnology.

CISC 829-011 COMPUTATIONAL GEOMETRY

Computational geometry is the study of algorithmic problems arising in geometric domains. Course explores basic and advanced algorithms, concepts and applications of computational geometry for use in graphics and vision. Equal emphasis given to theoretical and applied concepts.

CISC 849-010 COMPUTER VISION

Computer vision is heavily used in real world systems. Applications include biomedical image analysis, remote sensing, multimedia systems, etc. Focuses on selected computer vision applications. Projects aimed at exploiting the theoretical computer vision knowledge and their application.

CISC 879-010 MACHINE LEARNING FOR SYSTEMS

Introduces research being performed at the intersection of systems and machine learning. Students gain perspective on hard systems problems and discuss methods of using learning-based approaches to tackle larger, more complex, dynamic systems.

CISC 889-010 EMPIRICAL METHODS FOR CIS

Covers research methods for computer scientists, including data exploration, hypothesis generation, modeling, experimental design, and statistical analysis. Includes reading published CS papers to critique empirical methods and learn to use R language/toolkit for research projects.

COMMUNICATIONS

COMM 200-010 SEX / VIOLENCE & THE MEDIA

Acquaints students with the issues surrounding the prevalence of sex and violence in the media. Includes free speech/press decisions and their impact, why people watch, their effects, and the market forces that encourage corporations to carry such content.

COMM 320-080 OBSERVING COMMUNICATION BEHAVIOR

Focuses on the procedures and problems of observing, recording, measuring, and analyzing human COMM behavior in its many types and varieties. Addresses behaviors associated with both mass and interpersonal COMM. Includes time outside of class in observational projects.

COMM 418-010 COMMUNICATION & ADVERTISING

Current directions in the study of advertising, with emphasis given to effects research. Focuses on several different types of advertising (commercial, political, health) and the processes associated with both positive and negative message outcomes.

COMM 642-050 SMALL GROUP COMMUNICATION

Examines in detail significant theory and research relevant to small group communication in several areas, including social influence, leadership, and communication technologies.

CRIMINAL JUSTICE

CRJU 467-010/SOCI 467-010 CULTURAL DEVIANCE & MUSIC

The importance of the leisure industry to local, national and international communities, plus theories and research on youth, leisure, culture, and music in connection to both deviant identities and behaviors. Special attention to the U.S., but also to countries such as England, Spain, Brazil, and Japan.

ECONOMICS

ECON 367-010 ENERGY ECONOMICS

Uses economic theory to examine the operation and efficiency of energy markets. Topics include regulation, energy efficiency and emission control, and public policies affecting energy markets. Prereq: ECON 151.

ECON 867-010 URBAN & TRANSPORTATION ECONOMICS

Topics include highway congestion and capacity, the efficiency of different mass transit systems, the causes and consequences of urban sprawl, and the environmental impact of transportation. Prereq: Econ 801, and Econ 822.

EDUCATION

EDUC 854-010 RACE, ETHNICITY IN EDUCATION

Examines both historical and contemporary constructions of the idea of race, and examines the history of exclusionary treatment of racially oppressed groups in different educational arenas. Students analyze and utilize divergent conceptual frames to understand how institutional structures and everyday school practices and policies both produce and resist inequality along racial and ethnic lines.

ELECTRICAL ENGINEERING

ELEG 467/667-010 INTRO TO RADAR SYSTEMS

Introductory description of basic RADAR concepts, terms and operational scenarios. The RADAR range equation needed for the basic understanding of radar is then developed, along with several examples of its use in system design. RADAR propagation issues, such as attenuation and multipath effects are described.

ELEG 867-010 TURBO RECEIVERS

The turbo principle can be employed to design receivers based on MAP detection capable of operating under very stringent channel conditions. Includes the study of turbo-like codes and their integration with other digital receiver stages such as demodulation, equalization and multi-user detection.

FINANCE

FINC 467/667-050 MUTUAL FUNDS

Given the prominence of the mutual fund industry, it is important that students understand the industry's practices, regulations, and key current issues. Provides an in-depth review of the mutual fund industry through lectures, class discussion, case analysis, and a project.

FINC 467-051 REAL ESTATE DEV & INVESTMENT

Focuses on creating an investment strategy for a complex real estate development project, including financial modeling, market research, debt and equity placement, and analysis of appropriate return criteria for potential capital partners. Presents project to an industry panel.

FINC 467-052 GENERAL SECURITIES-SERIES 7

Examines topics that are tested on the FINRA Series 7 Examination. The Series 7 License qualifies professionals for the purchase/sale of all securities products, including equities, fixed income, derivatives, real estate, and funds.

FOREIGN LANGUAGES AND LITERATURE

FLLT 322-010,080/CMLT 322-010,080/WOMS 322-010,080 GREEK TRAGEDY

Surveys ancient Greek tragedy, both in its development as a genre and in its physical production. Examines works by the foremost tragedians, Aeschylus, Sophocles, and Euripides. Focuses on manipulation of myth, religion, theme, character, gender issues, and socio-political relevance.

FLLT 367-010,080 WAR & EXILE: MODERN IRAQI LITERATURE

Explores the situations and unique experiences of Iraqi Women. Through novels, essays and films by Iraqi women who witnessed wars, sanctions and exile, we will delve into the richness of their experiences, the violence and the trauma they suffered.

FLLT 667-010 SECOND LANGUAGE ACQUISITION RESEARCH

In-depth exploration of topics pertaining to the acquisition of a second or additional language. Highly recommended for students planning to write a Master's thesis, and for those preparing for their comprehensive examination in Foreign Language Pedagogy.

GEOGRAPHY

GEOG 467/667-050 THE POLAR WORLD

Offers a broad interdisciplinary survey of natural environments and human activities in the Arctic and Antarctic regions. Includes exploration history, landscapes and landscape change, cryospheric processes, material culture, and contemporary issues.

GEOG 467-051 GEO VIDEO

Introduces students to the use of video to document all aspects of the Geography discipline, including Physical and Human Geography, as well as Environmental Science. Includes basic video production techniques and producing short video productions with geographical content. Students must have their own external hard drive with firewire connection.

GEOLOGY

GEOG 467/667-010 MODELING GROUNDWATER FLOW

A practically-oriented introduction to groundwater flow and solute transport modeling. Begins with simple analytical models and progress to basic numerical methods and hands-on use of widely-used codes, including MODFLOW, MT3DMS, and SUTRA. Some programming experience with MATLAB is recommended. Prereq: GEOL 628/CIEG 698 and MATH 341 or permission of the instructor.

GEOG 667-011 METHODS IN GEOMICROBIOLOGY

A seminar and laboratory-based course on various methods in geomicrobiology, with a focus on microscopy techniques, including fluorescence and electron microscopy. Students will be expected to perform some laboratory work outside of class periods. Prereq: Students should have at least one course in geomicrobiology or environmental biology.

HUMAN DEVELOPMENT & FAMILY STUDIES

HDFS 475-010 SUBSTANCE ABUSE COUNSELING

Explores substance abuse research/treatment interventions. Examines commonly used assessment tools, potential client populations and evidence-based treatment approaches.

HEALTH & EXERCISE SCIENCES

HESC 667-011 LABVIEW FOR SCIENTISTS

Focuses on learning and utilizing the LabView programming environment to develop proficiency in collecting data from analog devices such as force transducers, and manipulating data from a variety of other instrumentation, including motion capture systems.

HISTORY

HIST 367-010 REVOLUTIONARY FRANCE 1789-1871

Analyzes France's revolutionary century from the great Revolution of 1789 to the Paris Commune of 1871. Focuses on the ideas and actions of individuals like Napoleon Bonaparte, who left their mark not just on France but on Europe and beyond.

HIST 367-011 UNDER CROSS & CRESCENT: JEWS IN THE MIDDLE AGES

Examines the history of the Jews under Christian and Muslim rule from late antiquity until the end of the Middle Ages. Explores the religious and cultural achievements of the Jews, and the complex and at times troubled relationship Jews had with Christians and Muslims in the Middle Ages.

HIST 367-013 WOMEN IN JAPANESE HISTORY: BEYOND GEISHA

From layered kimono to Gwen Stefani's Harajuku girls, this course explores the lives and experiences of Japanese women through historical analysis--and in their own words--from earliest times to the recent past.

HIST 367-014 HISTORY OF BRAZIL

Focuses on Brazil over five hundred years, from first contact with Europeans through independence, modernization and contemporary issues facing the country. Includes the fate of indigenous peoples; colonial economies and society; slavery and ideas about race; twentieth-century nationalist and resistance movements; and popular culture.

HIST 367-015 AMERICAN RADICALISM

Focuses primarily on the development of various forms of left radicalism in the US, and assessing the counterculture and New Left of the 1960s. Includes anarchism, feminist and African-American influences, radical unionism, and post-modernism.

HEALTH PROMOTION

HLPR 267-011/UAPP 267,010 INTRODUCTION TO PUBLIC HEALTH

Introduction to behavioral, social, and environmental aspects of public health. Emphasis on epidemiological principles, political and medical-care issues, and current events. Current events covered may include improving access to health care, controlling infectious disease, and management of hazardous waste.

JAPANESE

JAPN 267-010 ADVANCED INTERMEDIATE JAPANESE I

Grammar is heavily emphasized. It covers Genki II, Chapters 13-18. Classes are conducted in Japanese. About 75 additional Kanji will be introduced.

LIBERAL STUDIES

MALS 667-010 PRESIDENTIAL CHARACTER

Through readings, films and discussions, focuses on JFK, LBJ, Nixon, Reagan, Clinton and Bush-43rd. Examines how their background and personality affected their conduct as president.

MARINE STUDIES

MAST 867-011/ECON 867-011 VALUING THE MARKET

Covers the theory and methods used to value environmental goods. Includes the latest techniques for revealed and stated preference methods including travel cost, hedonic price, contingent valuation, and conjoint models. Introduces actual data sets for analyses. Prereq: One year of graduate econometrics and one semester of graduate microeconomic theory.

MAST 876-012 MODIS REMOTE SENSING

Atmosphere, ocean, ice, and vegetation are often studied with MODIS, satellites which resolve signals at 500-m scales at visible to infrared wavelengths in civilian and military applications. Applications focus on high latitudes where the impacts of climate change are most visible. Prereq: MATH221/222 or PHYS207/208 or permission of instructor.

MATHEMATICS

Math 567-010 MATHEMATICS OF MEDICAL IMAGING

Introduction to mathematical methods in medical imaging. Includes basic models for tomography such as x-ray tomography and impedance tomography, inversion of the Radon transform and band limited Fourier transform, Shannon sampling theory, Nyquist's theorem, resolution and filtering. Also, reconstruction with simulated data and real data for simple tomography models.

Math 826-010 NUMBER THEORY

Elementary number theory (primitive roots, quadratic reciprocity), Algebraic number theory, Equations over finite fields, Zeta functions: Also some p -adic number theory.

MATH 838-010 SPECTRAL METHODS

Spectral and high-order difference methods for numerical solutions of PDEs. Includes Fourier and Chebyshev series, interpolation theory, boundary-value problems, eigenvalue problems, time-stepping methods, polar and spherical coordinates, and advanced topics. Prereq: MATH 612 or permission or instructor.

MEDICAL TECHNOLOGY

MEDT 267-010 COMMUNICATION, EDUCATION AND ETHICS IN HEALTHCARE

Focuses on tools to achieve effective interpersonal and interdisciplinary communication. Includes the use of educational methodology to educate laboratory personnel, as well as other practitioners and consumers who

utilize laboratory services. Discussion of ethics and professionalism in relationship to health-related topics.

MECHANICAL ENGINEERING

MEEG 467-010 MODERN CONTROL SYSTEMS

Analysis of dynamical control systems with multiple inputs and outputs from a state-space perspective. Study of the solutions of continuous-time linear state equations, introduction to controllability and observability, and basic pole placement for single input state space systems. Introduction to optimal control. Prereq: MATH351

MEEG 467/667-011 NANOMATERIALS AND NANOTECH

Introduces students to the science of the building blocks of nanostructured materials, material behavior when they are assembled, technology for building nanoscale structures and features, nanomaterials for energy conversion and storage, and the technological implications of these nanomaterials and nanotechnologies.

MEEG 467/667-014 CYTOMECHANICS

Studies essential cellular processes, including maintenance of cell shape, cell motility, adhesion, and deformations, and how cells sense and respond to mechanical signals.

MEEG 867-010 MECHANICS OF NANOCOMPOSITES

Introduction to nanomaterials and their composites. Reviews recent developments in carbon nanotubes, fiber materials and composites; Numerical modeling techniques--atomistic and continuum approaches; Molecular structural mechanics method; Multi-scale modeling of carbon nanotube-reinforced composites; Modeling of short fiber composites; Constitutive modeling of carbon nanotube reinforced composites; Electro-mechanical coupling. Prereq: MEEG610 or equivalent.

MEEG 867-011 DIFFERENTIALLY FLAT SYSTEMS

Reviews linear and nonlinear dynamic systems which are static and dynamically feedback linearizable. This property is used to develop methods for planning and optimization of dynamic systems. Integrates tools from nonlinear systems theory, motion planning, and optimization applied to robotics, vehicles, and control.

MATERIALS SCIENCE ENGINEERING

MSEG 667-013 GUESSTIMATION

Have you ever wondered how many atoms of Julius Caesar's last breath you have just breathed? Learn how to estimate by orders of magnitude and develop a certain thought process to help you through your studies, work and life itself.

MUSIC

MUSIC 667-010 GRADUATE MUSIC THEORY REVIEW

Remedial course designed for students who have failed the Graduate Music Theory Placement Exam. Consists of three components: Diatonic Harmony, Chromatic Harmony and Melodic Harmonic Ear-Training. Passage of the course is the prerequisite for entrance into MUSC 695.

PHILOSOPHY

PHIL 467-010/MSEG467-010 ETHICS IN NANOSCIENCE

Investigates societal, environmental, and ethical issues from rapid advances in nanoscience and nanotechnology. Presents a broad picture of the current status of nanotechnology, introduces basic concepts and theories of ethics, overlaying the two to critically reflect on the future of responsible technological development.

PHYSICS

PHYS 367-010 ASPECTS OF MODERN PHYSICS

Continuation of PHYS309. Covers basic solid state physics, nuclear physics, and introductions to elementary particle physics, general relativity and cosmology. Prereq:PHYS309

PHYS 667-010 GALAXIES

Addresses the structure, formation, and evolution of galaxies as building blocks of the universe. Emphasizes using the laws of physics to interpret observational data and recent discoveries in the field.

PLANT & SOIL SCIENCES

PLSC 267-010 INVASIVE PLANTS: WHAT CAN WE DO WITH THEM?

Explores why invasive plants are of concern to ecologists, land managers, and home owners; what makes a plant invasive; methods used to manage invasive plants, and their consequences; who's responsibility they are; and if useful products can be harvested from them. Introduces students to multiple perspectives on a serious challenge and will provide opportunities to be involved in service learning projects addressing invasive plants.

PLSC 467/667-010 MOLECULAR PLANT PATHOLOGY

Investigates why plants are not constantly succumbing to disease, considering they come into contact with millions of potentially pathogenic microbes over the course of their lives. Explores molecular aspects of resistant interactions, as well as those that lead to disease, from both the plant and pathogen perspectives.

PLSC 467-011 LEADERSHIP FOR DESIGNERS

Focuses on the interaction of leadership and creativity through the applied medium of design across disciplines. Emphasis on the interconnections of design across disciplines, seeking models and ideas from other fields. Comments: Prerequisite PLSC232

PLSC 467 013/667-013 PLANT HORMONE ACTION

Literature based course discussing current understanding of plant hormone signal transduction pathways and their roles in plant growth, development and defense.

PLSC 667-012 RHIZOSPHERE BIOCHEMISTRY

Surveys the signaling and regulatory mechanisms involved in the structuring of rhizosphere communities. Reviews the roles of plants and microbes in nutrient cycling, nutrient acquisition, plant disease, biocontrol and bioremediation. Special emphasis on the biochemical and genetic techniques used for studying plant-plant, plant-microbe and microbe-microbe interactions.

PLSC 667-014 ANALYTICAL PLANT GENETICS: ANALYSIS OF CONTINUOUS TRAIT VARIATION:

Principles and methods to study and integrate Phenotypic and Genotypic Data. Prereq: PLSC101, STAT371 or FREC/STAT 408

PSYCHOLOGY

PSYC 167-010 POSITIVE PSYCHOLOGY

Positive Psychology is a new branch of psychology that studies the strengths and virtues that enable individuals and communities to thrive. Become familiar with and apply the important research-based theories and concepts in the field of positive psychology.

PSYC 367-010 HEALTH PSYCHOLOGY

Designed to give students an introduction to the Biopsychosocial Model of health and illness. Specifically, from the perspective of the Biopsychosocial Model, explores the complex relationships among health and several biological, social, and psychological factors.

PSYC 467-010/667-010 NEUROPLASTICITY

Neuroplasticity is a set of changes that occur in the organization of the brain as a result of experience. Explores the history of neuroplasticity field, major principles of neuroplasticity, and discusses the application of these principles to promote and increase the recovery from brain damage.

PSYC 467-011/667-011 ADVANCED NEUROPHYSIOLOGY

Explores the cellular and molecular basis of signal transmission in the brain. Includes in-depth coverage of neurophysiology at all levels of analysis from the single ion channel to neural circuits, with emphasis on how these circuits mediate specific behaviors.

PSYC 467-012/667-012 CREATIVITY

A survey of readings and research on musical, artistic, and scientific creativity. Discusses all contemporary theories, including those pertaining to expertise and cognition, personality, and social issues.

PSYC 467-013/667-013 INTIMATE RELATIONSHIPS

Introduction to the psychological science of romantic relationships. Students will learn theories of how romantic relationships flourish vs. fail; what social scientists have discovered about romantic relationships; and how to put this knowledge into practice.

PSYC 467-014 STRESS AND COPING

Examination of stress and coping research and applications. Discusses coping with daily stressors, as well as major stressors such as trauma, and its effect on general well-being and psychopathology. Studies applications of these processes to health outcomes and settings.

PSYC 467-016 PARENTING CHILD MISBEHAVIOR

Provides an experiential clinical/research opportunity with Parent Child Interaction Therapy (PCIT) with children who have behavior disorders. Students work directly with clinicians and researchers in the field each week, as well as participate in periodic class meetings. Excellent preparation for graduate school.

SCIENCE

SCEN 267-010 INTRODUCTION TO SCIENCE TEACHING

Introduces the profession of science teaching. Discusses past and current educational issues, organizations and programs dedicated to teaching science, state and national science standards, training in science inquiry, and observation in middle/high science classrooms working with teachers and students, including preparation and teaching of inquiry lessons.

SOCIOLOGY

SOCI 367-010 MENTAL HEALTH & WELL-BEING

Explores major concepts and measurements within mental health research, contemporary mental health services and treatments, the role of stigma and the social context of mental illness, as well as practices within positive psychosocial well-being.

SOCI 667-010 TEACHING SOCIOLOGY & CRIMINOLOGY

Seminar for graduate students in Sociology and Criminology focusing on issues arising out of the teaching of these disciplines.

SOCI 667-011 GENDER CROSS-NATIONAL PERSPECTIVE

Provides a consolidated knowledge on gender studies, theory and methodology, the social construction of gender and sexuality; gender ingrained within race, class and religion; gender within the institution and organization; and gender in the global context of development.

SPANISH

SPAN 467-010 LATIN AMERICAN CITIES

Through intensive research and study of texts and artifacts centering on cities, students will integrate and focus their knowledge of Latin American cultures across three or more disciplines including political science, literature, history of art, anthropology, history, economics and geography. Taught in Spanish

URBAN AFFAIRS & PUBLIC POLICY

UAPP 467/667-020 PLANNING SUSTAINABLE COMMUNITIES & REGIONS

Examines theory and methods for planning for more sustainable communities and regions in a global context in the twenty-first century. Examines tools for sustainable planning and how current land use and regional planning is and can become more oriented to sustainability. Features University of Delaware as example of sustainable planning.

UAPP 467/667-021 ISSUES IN HEALTH POLICY & REFORM

Covers the major health policy issues of the United States today, including the health status of the U.S. as a whole, the social and economic determinants of health and health care, the roles of private and public health services, the organization and financing for health services, and the multiple factors affecting health policies.

UAPP 667-011 IT FOR PLANNING & ADMINISTRATION

Considers the use of technology tools in administration, planning and policy advocacy. Provides specific skills in selecting, using and applying technology. Considerable attention is given to Internet-based applications.

UAPP 667-013 INTRODUCTION TO PHOTOGRAPHING HISTORIC ARCHITECTURE

Combines principles of architectural photography to the photographic documentation of historic architecture, structures, and landscapes. Emphasizes how to identify and photograph character-defining features of architecture and engineering structures. Reviews photographic protocols of the Historic American Buildings Survey and Engineering Record. Student will learn in field photographing properties. Access to digital camera required.

UAPP 667-014 EDUCATIONAL POLICY ANALYSIS

Introduction to field of policy analysis and application to education. Topics include the policy process, policy analytic frameworks and concepts, policy alternatives and evaluation. Includes recent history of educational policy analysis (1960s to present) and examples of educational policy analysis (e.g., significant reports, journals, websites).

UAPP 667-018 WORLD HERITAGE SITES

851 properties around the world have been named to the World Heritage List, deemed by an international committee to embody outstanding universal values for humankind. Explores the history, global strategy, and preservation effectiveness of UNESCO's list. Examines the ten primary selection criteria for inclusion in the list, with case studies from diverse regional and cultural contexts.

UAPP 667-019 HOUSING & NEIGHBORHOODS-NETHERLANDS

Exposes participants to the Dutch approach to housing and neighborhood planning, preservation and development through participation in a 9-day study trip to the Netherlands. Focuses on housing and neighborhood development, redevelopment, preservation and planning. Includes a variety of day trips to Amsterdam and other Dutch cities.

UNIVERSITY STUDIES

UNIV 167-010,011 NAVIGATING YOUR ACADEMIC PATH

Utilizes a variety of methods, including discussions and self-discovery activities, to focus on students individual skills and interests; and to gain a greater understanding of the components that may lead to selecting an appropriate academic major at UD.

WOMEN'S STUDIES

WOMS 267-010 VISIONING SEXUAL VIOLENCE

Explores sexual violence through the medium of film. View a variety of films about sexual violence, read materials related to sexual violence topics, and participate in class discussions.