

Supplemental Course Descriptions for Fall-2011

Updated Aug 12, 2011

ANFS – ANIMAL & FOOD SCIENCE

ANFS 467-10 RECOMBINANT DNA TECHNOLOGIES

Designed to introduce students to the fundamental concepts and principles of Recombinant DNA technology. Uses lectures and current articles as practice examples.

ANTH - ANTHROPOLOGY

ANTH 367-10 CULTURE, HEALTH AND THE ENVIRONMENT

Biocultural perspective on health, culture, environment. Biocultural understandings of health & disease; physical and sociocultural aspects of the environment; maternal-child health and developmental perspectives; case studies of health & environment.

ART - ART

ART 367-10 CRANE ART CENTER INITIATIVE

Learn how to run and to maintain UD@Crane, participate in installation of art works, marketing design, public relations, office organization, discuss art work with public, help with receptions, events, research around exhibitions, artists.

ART 367-11 EXPANDED PRINT MEDIA

Explores the print processes learned in Intro to Printmaking. Experiments with new forms, including lithography and multi-processes, digital output & dissemination. Student driven projects emphasize mixing media & inter-disciplinary problem solving. PREREQ: ART243.

ARTH - ART HISTORY

ARTH 198-10 BUILDING THE WESTERN WORLD

Surveys patterns of architecture and settlement from antiquity to last Friday. Lectures link monuments from major traditions with a series of themes to make the past relevant to today.

ARTH 198-011 100 AFRICAN MASTERWORKS: PAINTING, SCULPTURE, ARCHITECTURE, VIDEO

Significant visual, performance and experimental arts; painting, sculpture, constructed things, and movies: "Lucy to 2012!"

ARTH 199-10 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 402-10/80 FROM ALBERTI TO MICHELANGELO: RENAISSANCE ARCHITECTURE IN ITALY

Seminar on the architecture of Renaissance Italy. Focuses on individual architects, their work, and the main centers of production (Florence, Rome and Venice). Treats architecture as language; interpreting the past; the training of the architect.

ARTH 420-10 CAIRO: ARCHITECTURE & REVOLUTION

Explores and writes about the relationship between architecture and revolution in Cairo from the era of the Tunisian Shi'i aristocracy, through the coup of the Mamluk (slave) era, to Tahrir Square in our contemporary times.

ARTH 423-10 ARTIFICIAL LIGHT INTO ART

Joining histories of representation (painting, photography, film and performance) with those of lighting (candles, gas, incandescence, and new LED technologies), this seminar poses an aesthetic problem common across media: artificial light.

ARTH 616-10 ORIGINALITY, CREATIVITY, VIRTUOSITY IN BAROQUE THEORY & PRACTICE

Examines the theory of originality, the creative process and invenzione. Topics include: artistic rivalries; charges of plagiarism; the "divine" artist; the burden of classical sources.

ARTH 620-10 TOURISTS, TRAVELERS, IMMIGRANTS, CITIZENS: WHITE ARTISTS AND ARCHITECTS IN AFRICA AND THE CARIBBEAN

Explores the dilemma of art historical incorporation. The art/architecture of self-identified white artists Gide, A. Breton, Rimbaud, S. Wenger, Almeida, A. Vaughan-Richards, and J. Noero, pose questions for writing the 19th/20th Africa and Caribbean.

ARTH 626-10 PAINTING, PHOTOGRAPHY, FILM, LITERATURE, 1860-1930

The art and visual culture of the period 1860-1930 studied through the lens of problems of medium: differences, relations, and interactions among media (painting, photography, film, and literature) and theories of intermediality.

ARTH 635-10 COLONIAL ART ACROSS NORTH AMERICA

Explores the practices of art making in diverse regions of colonial North America (the British and Dutch settlements of the eastern seaboard, New Spain and New France, among others), and the circuits of production and consumption that connected them.

BHAN - BEHAVIORAL HEALTH & NUTRITION

BHAN 267-10 FITNESS INSTRUCTOR TRAINING

Learn how to develop fitness programs. Includes anatomy, physiology, and kinesiology, safety and professional responsibility. At course conclusion, be prepared to teach group fitness classes and sit for many national exams.

BHAN 467-10 BEHAVIOR CHANGE STRATEGIES

Via interactive lectures and real world cases, students learn to help clients make behavior changes. Focuses on tobacco, fitness, nutrition, stress, stages of change, motivational interviewing, counseling, assessment, and goal setting.

BHAN 467-50 ADV ADAPTED PHYSICAL ACTIVITY

Planning, implementation and evaluation of physical activity interventions for individuals with various disabilities across the lifespan. Prepares students to identify and apply current behavior management strategies. Includes practical applications.

BISC - BIOLOGY

BISC 667-12 PRINCIPLES OF EXPERIMENTAL PHARMACOLOGY

Focuses on basic principles of drug/receptor interactions, mechanisms of drug action, and pharmacokinetics, then how pharmacological modification of organ systems is used to tackle therapeutic problems.

CHIN - CHINESE

CHIN 467-10 ADVANCED CHINESE LITERARY READINGS

Focuses on students' advanced reading skills. Studies selected texts from modern Chinese literatures. Introduces the literary aspects of the Chinese language. Taught entirely in Mandarin Chinese.

CIEG - CIVIL & ENVIRONMENTAL ENGINEERING

CIEG 467-10 ADVANCED CONCRETE DESIGN

Design of continuous beams and slabs; design of doubly reinforced beams; calculation of immediate and long-term deflection; design for torsion; design of walls, footings, and combined footings; slender column design; and reinforcement details.

CIEG 667-11 MANAGING ENGINEERING PROJECTS

Gain an understanding of the principles of planning, controlling, and evaluating engineering projects. Learn the use of tools and techniques and practice their use on a personal project. Topics include project organization, budgeting, and scheduling.

CIEG 667-12 ADVANCED DATA ANALYSIS

Comprehensive introduction to the principles and practices of emerging advanced data with particular focus to engineering science. Provides insight to emerging advanced statistical techniques.

CIEG 667-13 BRIDGE ANALYSIS

Analysis of bridge structures, emphasis on highway bridges. Includes loads required for bridge analysis, influence lines and surfaces, and understanding their placement. Emphasizes application of analysis techniques.

CIEG 667-14 SOIL SLOPES AND EMBANKMENTS 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.

CIEG 867-10 SELECTED OPERATIONS RESEARCH TECHNIQUES & MODELING

Aimed at teaching Ph.D. students popular operations research techniques such as integer programming, game theory, data envelopment analysis (DEA), analytical hierarchical process (AHP), Hilbert-Huang Transformation (HHT), etc.

CISC – COMPUTER & INFORMATION SCIENCE

CISC 367-10 SECURE SOFTWARE DESIGN

A one-semester, seminar-style, course, covering s one specific discipline of information security, application security. This discipline (APPSEC) refers to the development of software that can continue to function under attack. Coreq: CISC 360. Prereq: CISC 181 and CISC220.

CISC 659-10 DISTRIBUTED COMPUTING & NETWORKS

System design & algorithms for scalable distributed computing. Topics: prototypical distributed systems like the Internet's Domain Name Svc & global routing, and newer paradigms from cloud computing, and systems underlying modern Internet-scale svcs.

CISC 841-10 ALGORITHMS IN BIOINFORMATICS

Advanced topics in current bioinformatics research, such as hidden Markov models, kernel based methods, and Bayesian based analysis with applications to functional annotation, structural prediction, and biological networks inferences.

CISC 861-10 WIRELESS NETWORKS & MOBILE COMPUTING

An in-depth study of networking protocol & system software in wireless networks & mobile computing. Topics: e MAC layer and 802.11, ad hoc networks, sensor networks, GloMoSim sim package, Mobile IP, Cellular IP, wireless TCP,middleware, 3G wireless.

CISC 889-10 AUTOMATIC PROGRAMMING

Explores a variety of approaches to automatic programing, devising algorithms and writing program language. Includes Inductive and Deductive approaches.

CISC 889-11 INFORMATION RETRIEVAL

Web search engines and other information retrieval systems. Organizing, analyzing, indexing, and searching GB to TB of heterogeneous, unstructured textual data. Search tasks, retrieval models, index structures, and effectiveness evaluation.

CISC 889-12 ADVANCED TOPICS IN BIOINFORMATICS: SYSTEMS MODELING & SIMULATION

Concepts , techniques, and tools for modeling and simulation of biological systems. Gene regulations, signal transduction, and metabolism. Bayesian networks. Optimization.

COMM - COMMUNICATION

COMM 200-10 POLITICS AND POPULAR CULTURE

Introduces students to the study of popular culture with focus on its role in American political life. Pop culture movies, music, tv and websites will be discussed to understand political relevance on individuals and society.

COMM 200-11 SCIENCE COMMUNICATION

The nature and effects of news and entertainment media messages regarding scientists, the scientific process, and scientific controversies.

COMM 200-50 HEALTH COMMUNICATION

Theories and topics regarding the role of entertainment media, news media, advertising, the Internet, mobile technology, and social advocacy in health promotion.

COMM 267-10 GENDER & DIGITAL CULTURE

Examines how gender shapes the production, use, and social impact of digital media and related technologies.

COMM 367-50 POLITICAL COMMUNICATION LECTURE SERIES: TURNING THE CORNER TOWARD THE 2012 ELECTION.

This 1-credit course consists of 12 lectures that focus on the political issues as we approach the next presidential election. Lectures will be given by scholars and national political experts in a variety of fields. Some lectures may run later.

COMM 418-10 MEDIA ETHICS & ACCOUNTABILITY

Examines the role(s) that mass media are expected to fulfill in society, and the various ways for holding media accountable for meeting those responsibilities.

COMM 418-50 SPORTS AND THE MEDIA

Explores the relationships that exist between sports and the media (primarily television,) including the ways in which sports influences media and the ways media influences college and professional sports.

COMM 442-10 SMALL GROUP COMMUNICATION

Studies theory and research relevant to various aspects of small group decision making; and the functions communication performs during the discussion. Includes practicing group skills. Uses recordings to analyze small group communication.

CPEG – COMPUTER ENGINEERING

CPEG 867-10 ADVANCED TOPICS ON HIGH-END COMPUTER SYSTEMS

Focuses on challenges and opportunities in design and implementation of future high-end computer systems. Main challenges centered on definition and specification of parallel program execution models that are sound, scalable and programmable.

DANC - DANCE

DANC 167-10 DANCING THROUGH LIFE: CAREER OPTIONS IN DANCE

Serves as an introduction to the dance minor and allows students to explore a variety of potential careers in dance including, performer, educator, researcher, health professional, and journalist.

ELEG - ELECTRICAL ENGINEERING

ELEG 667-10 INTRODUCTION TO MICROWAVE CIRCUITS

Reviews the history of E&M Maxwell's equations and Radio Science topics, highlights how RF techniques were developed from theory. Discusses Smith Chart, Chou Limit, Shannon's limit and Forster's Reactive.

ELEG 867-10 ADVANCED TOPICS IN SIGNAL PROCESSING

Contemporary problems in signal processing (SP) . Specific topics vary, but may include parametric signal modeling, spectral estimation, multirate SP, nonlinear SP, compressive sensing, adaptive SP, & image/video/multidimensional SP.

ENERGY & ENVIRONMENTAL POLICY

ENEP 667-10 ENGINEERING ECONOMIC ANALYSIS FOR SUSTAINABLE ENERGY

Covers economic evaluation approaches, metrics, and level of detail required for making sound economic decisions in sustainable energy project development. Includes discounting (i.e. time value of money), financing methods (loans, mortgages, bonds, etc.), economic metrics (NPV, IRR, BCR, LCOE, etc.), and policy impacts (tax credits, capital rebates, accelerated depreciation, REC's, etc.) on design of sustainable energy systems.

GEOL - GEOLOGY

GEOL 467-13 GEOLOGICAL ASPECTS OF OFFSHORE WIND PROJECTS

Investigation of the geological and geotechnical aspects of offshore wind projects. Emphasis on influence of geology and properties of sediments and rocks on project planning and construction. Course utilizes problem-based learning pedagogy.

MATH - MATHEMATICAL SCIENCES

MATH 667-11 MATHEMATICS OF FLUID DYNAMICS

Types of fluids and fluid motion;governing equations for Newtonian and non-Newtonian flows. Simple exact solutions;Stagnation point flows,Viscous flows,free boundaries. Simple non-Newtonian flows. Physiological flows.

MEEG - MECHANICAL ENGINEERING

MEEG 467-10 MICROELECTROMECHANICAL SYSTEMS

Examines the mechanical, optical, fluidic, chemical, and biological devices that can be derived using modern microfabrication methods. Includes typical fabrication steps, device physics and mechanics, and a survey of existing and emerging device areas. Prereq: MSEG302 & PHYS245.

MEEG 467-11 MUSCULOSKELETAL SIMULATION

Develop knowledge and skills to generate dynamic models, analyses, and simulations of the human musculoskeletal system for different types of movement. Students will build and analyze computer simulations implemented on common software platforms to gain insight into movement biomechanics and control. Prereq: PHYS201 or PHYS207; MEEG211 or permission of instructor.

MEEG 467-12 SENIOR DESIGN: FSAE

Students work in groups to design, analyze, manufacture and test parts and subassemblies for use on a Formula SAE car to be used in the annual international competition held in California.

NTDT - NUTRITION & DIETETICS**NTDT 167-10 SPICE KITCHEN:TASTE THE FLAVOR**

Culinary class designed to explore the flavors and health properties of approximately ten spices. Assist in the preparation of recipes and complete sensory evaluations of the prepared foods.

NTDT 167-11, 12 BEHAVIORAL HEALTH & NUTRITION

Beign overweight and obesity are national health problems. Prevention is the solution. Learn how to prevent weight gain and maintain a healthy witght for life.

NTDT 667-10 ADV NUTR ASSESSMENT PRINCIPLES

Advanced study of nutrition status assessment methods from a research perspective. Principles/assumptions of the techniques, hands on experience, critical evaluation of literature. Culminates with study design/research proposal development.

NURS – NURSING**NURS 267-10 IDENTIFYING PROPER HEALTHCARE COMMUNICATION BY USING STANDARDIZED PATIENTS IN SIMULATED HOSPITAL SITUATIONS**

Nursing and Theater course where students will learn to be standardized patients and patient family member. Students moc 'real lif' scenarios to assesst he nedical and communication skills of student health care providers.

NURS 412-10 ONCOLOGY NURSING: MULTICULTURAL PERSPECTIVES

Explores issues and trends related to cancer care for adults using a multicultural perspective. Provides undergraduate nursing students an overview of selected aspects of oncology nursing for adults, including those from diverse cultural backgrounds. Includes information related to: the patho-physiology/epidemiology of cancer; issues and trends in cancer care; treatment modalities; resources; evidence-based practice, and culturally competent nursing care.

PHYS - PHYSICS**PHYS 667-10 INTRODUCTION TO MAGNETISM**

For beginners; covers origin and kinds of magnetism, magnetic phenomena of magnetic anisotropy, magnetostriction, magnetic interactions, Magnetic hysteresis behavior of materials with emphasis on permanent magnets as related to their microstructure.

SOCI - SOCIOLOGY**SOCI 367-10 CHILDHOOD AND SOCIETY**

Exploration of the conditions affecting children in contemporary society, with a particular focus on adolescence. Topics include poverty, educational systems, and risk behaviors.

SOCI 467-10 CATASTROPHES: JAPAN AND BEYOND

Focuses on the Japan earthquake/tsunami/nuclear catastrophe of March 2011 to study the differences between disasters & catastrophes. Develops a format for students to systematically study these events for comparative purposes.

SOCI 667-10 ADVANCED QUALITATIVE DATA COLLECTION AND ANALYSIS

Explores popular methods of data collection in qualitative research (interviewing, observations, content analysis, etc.), the analysis strategies associated with them, and proper professional 'writing-up' techniques.

SOCI 667-11 GENDER, CRIME, & DEVINANCE

Explores theoretical & empirical research that relates to gender, deviance, social control, & crime. Examines policy implications, paying particular attention to how multiple statuses of individuals affect social & institutional responses.

THEA - THEATER

THEA 267-10 IDENTIFYING PROPER HEALTHCARE COMMUNICATION BY USING STANDARDIZED PATIENTS IN SIMULATED HOSPITAL SITUATIONS

Nursing and Theater course where students will learn to be standardized patients and patient family member. Students moc 'real lif' scenarios to assesst he nedical and communication skills of student health care providers.

UAPP - URBAN AFFAIRS & PUBLIC POLICY

UAPP 467/667-23 TAXATION AND FISCAL POLICIES

Examines theory and application of financing and spending instruments of state and local governments. Includes efficiency, equity and impacts of different taxes (personal income, property, sales, business), user charges intergovernmental grants/fiscal federalism, and regulatory and fiscal instruments for public policy (expenditures, service pricing, transfers/subsidies).

UAPP 467/667-24 MEDIA & PUBLIC POLICY

As citizens in a representative democracy it is essential that we understand the role of the media. Examines the power and influence that the media wields and its effect on everyday citizenship. How the media are are organized and who owns the media.

UAPP 437/667-25 ENVIRONMENTAL RESOURCES AND PUBLIC POLICY

Explores the public policy implications of environmental planning and management at the international, national, state/provincial, and local levels. Discusses looming environmental challenges such as water scarcity, habitat loss, climate change, aging infrastructure, and mounting pollution. Employs an interdisciplinary policy and science based approach designed to address the modern governance, economic, social, and legal issues of the day in the air, land and water environments.

WOMS - WOMENS STUDIES

WOMS 205-11 VAMPIRE CULTURE: WHAT'S REALLY AT STAKE

Examines vampire in popular culture to discover what they reveal about our society and our hidden selves.

WOMS 267-10 GENDER & DIGITAL CULTURE

Examines how gender shapes the rproduction, use, and social impact of digital media and releated technologies.