Spring 2021 Supplemental Course Descriptions

Africana Studies

AFRA 206-10 WAGES OF WHITENESS
Whiteness studies focuses on how White developed as a racial category and how various ethnic/national groups came to be included under that racial label. We will examine the socio-historical construction of Whiteness, the evidence of its privileging effects, and what solutions can be offered.

Animal and Food Sciences

ANFS 267-11 CLINICAL PRE-VETERINARY EXPERIENCE 2
Continuation of advanced practical skills needed to obtain clinical experience in the field of small animal veterinary medicine, with a focus on feline and canine medicine. Clinical Pre-veterinary Experience 1 required Prerequisite or approval of instructor.

Applied Economics

APEC 867-11 RESEARCH METHODS FOR APPLIED ECONOMISTS
Guides graduate students through the process of conducting research in applied economics. Topics include: the scientific process, research ethics, conducting a literature review, basic data management, research communication, and development of a research proposal.

Arts and Science

ARSC 300-10 GLOBAL ENVIRONMENTAL JUSTICE 2
Explores issues of ethics, community engagement and activism in relation to environmental justice around the world. UD faculty and guest lectures focus on a variety of collaborative efforts to respond to environmental challenges and inequalities.

Art Conservation

ARTC 464-12 METALS CONSERVATION INTERNSHIP
Focuses on the examination, documentation, research, and conservation treatment of metal objects. Explores the ways in which metal objects were made and used around the world, their cultural significance, and deterioration mechanisms. The internship is a great introduction to conservation treatment.

ARTC 467-10 HISTORICAL MATERIALS & ART TECHNIQUES
Explores the nature of raw materials and processing methods, methods of construction, care principles, and documentation approaches for basketry materials. Considers case studies of basketry objects from a wide variety of cultural traditions and studio techniques, from the point of view of technology and functions.

**ARTC 464-10 CERAMICS CONSERVATION**

Focuses on the examination, documentation, research, and treatment of ceramic objects from the Winterthur Objects Conservation Lab study collection. Explores ways in which ceramics were made and used around the world, their cultural significance, and deterioration mechanisms. The internship is a great introduction to conservation treatment.

**Art History**

**ARTH 402-10, 80 DEPICTING RACE IN BLACK ART**
contextualized comparison of the art of modern and contemporary African diasporas in the

**ARTH 406-81 ART AROUND CHARLEMAGNE**
Addresses art (especially manuscripts, ivories and metalwork) and architecture, for Charlemagne and members of his court circle, and will involve extensive consideration of literary and historical documents. Special focus on four cities: Paris, Aachen, Rome and Jerusalem.

**ARTH 419-10 ART & MATERIALITY IN THE IBERIAN WORLD**
Examines the arts in diverse regions of the Spanish and Portuguese empires in light of the raw materials employed in their production, discussing not only the techniques and properties associated with each material choice, but also ways in which such substances were sourced and traded.

**ARTH 601-10 METHODS & HISTORIOGRAPHY**
interpretation and theory including connoisseurship, iconography, semiotics, social art history,

**ARTH 602-10 CURATING MAPPAE MUNDI: ART OF CARTOGRAPHY EXHIBITION**
designing proposals, curating objects, creating physical & digital exhibits, and writing catalog entries.

**ARTH 606-11 ART AROUND CHARLEMAGNE**
Addresses art (especially manuscripts, ivories and metalwork) and architecture, for Charlemagne and members of his court circle, and will involve extensive consideration of literary and historical documents. Special focus on four cities: Paris, Aachen, Rome and Jerusalem.

**ARTH 619-10 ART & MATERIALITY IN THE IBERIAN WORLD**
materials employed in their production, discussing not only the techniques and properties

**ARTH 627-11 DOCUMENTARY, PHOTOGRAPHY, AND TRUTH**
Considers the past and present of documentary photography as its theorists, makers, and users (artists, journalists, activists, bureaucrats, curators, etc.) have fashioned, negotiated, refused, and revised the terms of its definitionally unstable attachments to truth.

Biomechanics and Movement Sci.

BMSC 667-12 BIOMEDICAL SIGNAL PROCESSING
application for research, with a hands-on approach in a combination of lectures, supervised

BMSC 667-13 NEUROBEHAVIORAL CONTROL OF GAIT AND POSTURE
control, multisensory integration, transitional movements, and the impact of cognitive challenges

BMSC 867-10 COMMUNICATION AND CULTURE IN REHABILITATION RESEARCH
Elevates students' knowledge and skill in the effective verbal, nonverbal and written communication in their area of rehabilitation research. Build a personalized process focused on becoming a flexible, adaptive, clear, compelling communicator in the service of science.

Chemistry

CHEM 667-13 NMR SPECTROSCOPY: THEORY AND APPLICATIONS
Provides an overview of theory of NMR spectroscopy in solid state and solution and applications to a wide range of problems in chemistry, materials sciences, engineering, and life sciences. Comprised of lectures, computer exercises, and in class presentations.

Civil & Environmental Engineering

CIEG 367-10 CEM FIELD SURVEYS
activity. Students participate in on-site visits. Students will be responsible for their own

CIEG 467-10 ADVANCED BIM
Covers advanced topics in building information modeling, including building assembly modeling, clash detection, construction animations and visualization, 4D scheduling, automated BIM quantity takeoff, and BIM collaborations. Prior Revit modeling experience is suggested.

CIEG 467-11 TEMPORARY STRUCTURES IN CONSTRUCTION
Temporary structures in construction for example earth retaining structures, construction dewatering, tunneling supports, roadway decking, scaffolding, shoring, concrete formwork, cranes, and bridge false work. Safety and business aspects. Case studies in failures.

CIEG 467-12 ADVANCED BIM
Covers advanced topics in building information modeling, including building assembly modeling, clash detection, construction animations and visualization, 4D scheduling, automated BIM quantity takeoff, and BIM collaborations. Prior Revit modeling experience is suggested.

**CIEG 667-12 ADVANCED BIM**

Covers advanced topics in building information modeling, including building assembly modeling, clash detection, construction animations and visualization, 4D scheduling, automated BIM quantity takeoff, and BIM collaborations. Prior Revit modeling experience is suggested.

**Computer and Info. Sciences**

**CISC 467-11 COMPUTING FOR SOCIAL GOOD**

from a Human-Computer Interaction perspective. Iteratively design, build, and evaluate an

**CISC 667-11 COMPUTING FOR SOCIAL GOOD**

from a Human-Computer Interaction perspective. Iteratively design, build, and evaluate an

**CISC 689-11 INTRODUCTION TO NETWORK SCIENCE**

elements, principles of robustness, optimization and visualization. Practical work includes analysis of

**CISC 889-11 HUMAN-CENTERED ARTIFICIAL INTELLIGENCE**

Covers the implications of AI such as interpretability, reproducibility, corrigibility, ethics, automation, sustainability, democracy, and singularity. Following a high-level discussion of the topics, students will then choose theoretical or technical topics for in-depth discussions.

**Communication**

**COMM 200-10 HAPPINESS AND WELL-BEING**

include social scientific, philosophical, and applied approaches to social support, achievement,

**COMM 640-10 INTERPERSONAL HEALTH COMMUNICATIONS**

Focuses on the bidirectional associations between physiology and communication. Students will

**Criminology**

**CRJU 367-10 LAW POLICY & SOCIETY**

human rights, crime and social policy. Includes the religious, historical and cultural influences in law.

**Early American Culture**

**EAMC 606-10 ORAL HISTORY METHOD AND PRACTICE**
Interdisciplinary course (held at Winterthur Museum) approaches the theory and method of oral history in a seminar; includes field work involving the practice of oral history using digital and analog methods for use in an academic and public setting. Instructor.

Economics

**ECON 867-11 HOUSEHOLD FINANCE II**
models, including study of methods and instruments by which actors make their decisions, the

**ECON 867-10 TOPICS IN DYNAMIC MODELING**
intertemporal choice. Begins with foundational material on function representation and object-

Electrical Engineering

**ELEG 467-10 INTRODUCTION TO PHOTONICS**
photovoltaics, displays and communications. Includes electromagnetics, Maxwell's equations,

**ELEG 467-10 QUANTUM INFORMATION PROCESSING**
quantum key distribution protocols; Generalized measurements and quantum error correction;

**ELEG 667-10 QUANTUM INFORMATION PROCESSING**
quantum key distribution protocols; Generalized measurements and quantum error correction;

Epidemiology

**EPID 667-11 BIOSTATISTICS FOR HEALTH SCIENCES II**
applications for clinical and population health. Covers research designs, ANOVA, linear regression,

**EPID 667-12 ENVIRONMENTAL HEALTH CONCEPTS IN PUBLIC HEALTH**
Surveys major topic areas of Environmental Health. Examines sources, routes, media, and health outcomes associated with biological, chemical and physical agents in the environment.

Finance

**FINC 467-10 FINTECH AND FINANCE DATA SCIENCE**
learning methods.

**FINC 667-10 FINTECH AND FINANCE DATA SCIENCE**
learning methods.

History

**HIST 167-10 RACE AND RACISM: GLOBAL HISTORY AND REPRESENTATION**
to oppress and how it has connected with other social categories as Indigeneity, gender, sexuality,

HIST 268-10 HISTORY SEMINAR: WHAT IS LATINX?

Clarifies the complexities of Latinx by exploring the history of Latin American people and their descendants in the United States. Focuses on colonization of Latin American countries, migration patterns, and current representation of Latinx people in the United States.

HIST 268-14 SEMINAR: THE CRUSADES

and mining of primary sources.

HIST 268-11 SEMINAR: VIETNAM CONFLICTS

Through readings, discussion, music, images, and film, explores the Vietnam War in the context of decolonization and revolution in the Vietnamese lands of the former French Indochina.

HIST 336-10 TOPICS IN LATIN AMERICAN HISTORY: HISTORY OF MEXICO
cultures, conquest, colonization, independence, reform, revolution, and twentieth century struggles

HIST 337-11 TOPICS IN AMERICAN HISTORY: AMERICAN ASSASSINS

events, people and circumstances surrounding them.

HIST 337-10 TOPICS IN AMERICAN HISTORY: AMERICAN ENVIRONMENTAL HISTORY
documents to explore the ways in which the environment has influenced human endeavors, and

HIST 337-13 TOPICS IN AMERICAN HISTORY: HEALTH ACTIVISM

over compulsory vaccination to twenty-first century issues about healthcare biases against people

HIST 365-11 TOPICS IN ASIAN & PACIFIC HISTORY: JAPAN’S WW II

what World War II looked like through the eyes of Japanese soldiers, scholars, children, politicians,

HIST 400-10, 80 HISTORY CAPSTONE SEMINAR: MODERN US POLITICAL ECONOMY
capitalism, the changing face of modern opportunity, and the characteristics of contemporary elites,

HIST 400-11 HISTORY CAPSTONE SEMINAR: US-CHINA RELATIONS

China moved from friends to enemies during the past two centuries. Explores major historical

HIST 400-12 HISTORY CAPSTONE SEMINAR: 1916: THE EASTER REBELLION IN IRELAND

independence from Britain. Led by poets, playwrights, teachers and soldiers, the Easter rebellion

HIST 400-12 HISTORY CAPSTONE SEMINAR: 1916: THE EASTER REBELLION IN IRELAND

independence from Britain. Led by poets, playwrights, teachers and soldiers, the Easter rebellion

Health Studies
HLTH 467-10 CRAFTING HEALTHCARE
healthcare that occurs outside the mainstream institutions.

Kinesiology & Applied Physiology

KAAP 440-11 CLINICAL EXERCISE PHYSIOLOGY
exercise prescription. Theoretical and practical covering of administrative aspects of testing,

KAAP 440-10 SEX DIFFERENCES IN CHRONIC DISEASE
incorporating scientific presentations and writing assignments.

KAAP 640-11 HUMAN CARDIOVASCULAR CONTROL
exercise, orthostasis and heat stress.

KAAP 667-11 BRAIN IMAGING & BASICS AND CLINICAL APPLICATIONS
Introduces the basic principles of neuroimaging methods as applied to human subject research. Focuses on fundamentals of MRI physics and image formation, experimental design, data analysis and applications of functional & structural MRI techniques in human motor control.

KAAP 667-12 BIOMEDICAL SIGNAL PROCESSING
application for research, with a hands-on approach in a combination of lectures, supervised

KAAP 667-13 NEUROBEHAVIORAL CONTROL OF GAIT AND POSTURE
control, multisensory integration, transitional movements, and the impact of cognitive challenges

Landscape Architecture

LARC 367-10 REGIONAL DESIGN STUDIO
pertinent to residential and non-residential rural settings.

LARC 467-10 SENIOR DESIGN STUDIO
foundation for graduate school. Students initiate an independent project, define the project

Master of Arts, Liberal Studies

MALS 600-10 ELEMENTS OF GLOBAL ECOFICTION
Invites you to think broadly and deeply about different ways of imagining and experienceing these

MALS 622-10 HISTORICAL LEGENDS
Popular accounts, memoirs, novels, films, TV series shape perceptions of "how it was" and those perceptions, in turn, shape responses to current issues. Studies one of the great examples of history into legend (what actually happened in 1940), with side trips into other such episodes.
Marine Studies

MAST 467-14 TRACERS IN THE SEA
nitrogen cycling, trophic transfer, microbe-mediated processes and indicators of climate change in

MAST 667-14 TRACERS IN THE SEA
nitrogen cycling, trophic transfer, microbe-mediated processes and indicators of climate change in

Materials Science Engineering

MSEG 667-15 ADVANCES IN 2D MATERIALS
electronic, and photonic devices. Reviews different techniques used for their synthesis,

Music

MUSC 467-11 ARABIC PERCUSSION
Introduces students to instruments and music of Arabic percussion. Hands-on experience taught through oral tradition to create and develop a basic technical facility on each instrument and musical style studied in the course. No prior knowledge or musical experience is necessary.

MUSC 495-10 CLASSICAL AND POPULAR FORM
combination of original analysis and current scholarship, explores the intersection of harmony,

MUSC 611-10 MUSICAL WOMEN IN 17TH-CENTURY ITALY
of how gender was both a liability and an asset for female composers whose musical pursuits as

MUSC 611-11 CULTURAL POLITICS OF MINIMALISM
United States. Focuses on issues of power relations within both mainstream classical music and the

MUSC 667-10 HARMONY THROUGH SOCIAL ENGAGEMENT
a lens through which students may acquire and apply skills necessary for launching, cultivating, and

MUSC 667-11 ARABIC PERCUSSION
Introduces students to instruments and music of Arabic percussion. Hands-on experience taught through oral tradition to create and develop a basic technical facility on each instrument and musical style studied in the course. No prior knowledge or musical experience is necessary.

MUSC 677-10 A MUSIC EDUCATION TO EMPOWER
Topics include issues of diversity in music education, culturally responsive teaching, music therapy,

MUSC 695-10 EMPIRICAL/COMPUTATIONAL METHODS
Principles of computational thinking and study of empirical and computation approaches to music analysis with the goal of considering new ways to explore and study all types of music. Exploration of current literature on these topics and consideration of applications.

Neuroscience

NSCI 467-13 NEUROLOGICAL DISORDERS
common disorders and rarer conditions that provide a window into complex aspects of brain

NSCI 467-80 LEARNING, MEMORY AND THE BRAIN
systems perspective to illustrate the diversity of brain systems and behavioral processes that govern

NSCI 667-10 LEARNING, MEMORY AND THE BRAIN
systems perspective to illustrate the diversity of brain systems and behavioral processes that govern

Nutrition and Dietetics

NTDT 367-11 OUTPATIENT NUTRITION
practical skills in applying nutrition coursework knowledge to assess nutritional status and meet the

Philosophy

PHIL 465-10 DEBUNKING AND DISAGREEMENT
are undermined because our mental states are not properly explained by their subject matter.

PHIL 667-10 ETHICS IN DATA SCIENCE AND ARTIFICIAL INTELLIGENCE
disaster science, policing, and e-commerce. Participation-based format. Topics include: privacy,

Physical Therapy

PHYT 867-10 COMMUNICATION AND CULTURE IN REHABILITATION RESEARCH
Elevates students' knowledge and skill in the effective verbal, nonverbal and written communication in their area of rehabilitation research. Build a personalized process focused on becoming a flexible, adaptive, clear, compelling communicator in the service of science.

Plant and Soil Sciences

PLSC 267-11 CLINICAL PRE-VETERINARY EXPERIENCE 2
animal veterinary medicine, with a focus on feline and canine medicine. Clinical Pre-veterinary

PLSC 467-10 SEMINAR: PRINCIPLES OF INTEGRATED PEST MANAGEMENT
Applied course geared toward graduate students and upper level undergraduates. The objective is learning pest management strategies to be able to develop a decision-based framework for sustainable pest management, with special emphasis on plant diseases and insect pests.

PLSC 667-10 SEMINAR: PRINCIPLES OF INTEGRATED PEST MANAGEMENT

Applied course geared toward graduate students and upper level undergraduates. The objective is learning pest management strategies to be able to develop a decision-based framework for sustainable pest management, with special emphasis on plant diseases and insect pests.

Political Sci. & Intl Relations

POSC 467-10 HATE AND EXTREMISM

oppression. Provides a comprehensive examination of hate and extremism from a psychological

Psychology

PSYC 467-10 HATE AND EXTREMISM

oppression. Provides a comprehensive examination of hate and extremism from a psychological

PSYC 467-81 INFANT COGNITION

objects, spatial relations, speech sounds, and people. Considers sensory limits, biases that enable

PSYC 667-10 INFANT COGNITION

objects, spatial relations, speech sounds, and people. Considers sensory limits, biases that enable

PSYC 867-12 AFFECTIVE NEUROSCIENCE

Provides an introduction to theory and research in major areas of affective neuroscience methods with a particular emphasis on physiological substrates of affect and the relation of affect to cognition and psychopathology. Includes introduction to laboratory techniques.

PSYC 867-10 CLINICAL PSYCH: PHILOSOPHY, HISTORY AND CURRENT PERSPECTIVES

Develops a better historical understanding of assumptions about the body, mind and brain that have led to current thinking about assessment and treatment of psychopathology.

PSYC 867-11 PROFESSIONAL DEVELOPMENT

Professional development course specifically designed for graduate students in PBS and will cover a wide variety of topics, including time management, effective goal setting, and mentoring.

Sociology

SOCI 367-10 LAW POLICY & SOCIETY
human rights, crime and social policy. Includes the religious, historical and cultural influences in law.

**SOCI 467-10 LONG-TERM DISASTER RECOVERY**

**SOCI 667-10 CRIME PROBLEMS & SOCIAL PROBLEMS**
problems, and policymaking. Relates to the sociology of social movements, political sociology, media sociology, policy studies, and folklore.

**School of Public Policy & Administration**

**SPPA 667-10 ENVIRONMENTAL HEALTH TOPICS IN PUBLIC HEALTH**
Survey of major topic areas of Environmental Health. Examines sources, routes, media, and health outcomes associated with biological, chemical and physical agents in the environment.

**Statistics**

**STAT 667-10 STATISTICS THEORY AND LEARNING FOR NETWORK DATA**
Statistical theory and learning for network data. Topics include: network basics, descriptives, and sampling; latent space, block structure, and random graph model; graph testing, graph embedding, and community detection; machine learning on graphs.

**Theatre**

**THEA 467-10 ADVANCED HEALTHCARE THEATRE II**
simulations in the areas of standardization, feedback, and adherence to the ASPE Standards of Best

**Urban Affairs & Public Policy**

**UAPP 667-10 ETHICS IN DATA SCIENCE AND ARTIFICIAL INTELLIGENCE**
Seminar on societal impacts of data gathering and analysis, with applications in health sciences, disaster science, policing, and e-commerce. Participation-based format. Topics include: privacy, algorithmic biases and data incompleteness, profiling, safety, and informed consent.

**Women's Studies**

**WOMS 467-10 CRAFTING HEALTHCARE**
healthcare that occurs outside the mainstream institutions.