

## ENVIRONMENTAL ESP SCIENCE AND POLICY

### College of Social Science

**800 Principles of Environmental Science and Policy**

Fall. 3(3-0)

Overview of scholarship and research in environmental science and policy

**801 Physical, Chemical, and Biological Processes of the Environment**

Fall. 3(3-0) RB: Bachelor's or Master's in appropriate discipline for specialization. SA: SSC 801

Interdisciplinary concepts in the natural sciences related to environmental problems. Ecology and human health.

**802 Human Systems and Environment**

Spring. 3(3-0) RB: Bachelors or Masters in appropriate discipline for specialization. SA: SSC 804

Anthropological, economic, geographical, legal, political, and sociological concepts of human systems and environmental change.

**803 Human and Ecological Health Assessment and Management**

Fall. 3(3-0) RB: Familiarity with the basic concepts of physics, chemistry and biology of environmental processes, and the relationships between human systems and the environment. SA: SSC 805

Concepts and techniques used to evaluate human and ecological health impacts from anthropogenic activities. Policy formulation and management strategies to mitigate health effects.

**804 Environmental Applications and Analysis**

Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: ESP 801 and (ESP 802 or concurrently) and ESP 803 or approval of department RB: Bachelors or Masters in appropriate discipline for specialization. SA: SSC 806

Global, regional and local environmental issues. Use of systems approach to identify and solve environmental problems.

**845 Environmental Risk Perception and Decision-Making**

Spring. 3(3-0) Interdepartmental with Criminal Justice and Fisheries and Wildlife. Administered by Criminal Justice. R: Open to graduate students or approval of school.

Theoretical underpinnings of individual decision-making and risk perception processes. Case studies of the interplay of risk perception and decision-making in an environmental and or criminological context.

**846 Corporate Environmental Crime and Risk**

Spring. 3(3-0) Interdepartmental with Criminal Justice and Fisheries and Wildlife. Administered by Criminal Justice. R: Open to graduate students or approval of school.

Theoretical accounts and multiple interventions relevant to corporate environmental crime and risk. Use of "Smart Regulation" principles to design interventions to match specific problems.

**847 Global Risks, Conservation, and Criminology**

Fall. 3(3-0) Interdepartmental with Criminal Justice and Fisheries and Wildlife. Administered by Criminal Justice. R: Open to graduate students or approval of school.

Theories, actors, characteristics and legal instruments associated with risk, conservation, and criminology related to globalization. Current case studies in criminological conservation.

**851 Modeling Natural Resource Systems**

Spring. 3(3-0) Interdepartmental with Community, Agriculture, Recreation and Resource Studies and Fisheries and Wildlife. Administered by Community, Agriculture, Recreation and Resource Studies. RB: ecology, statistics, and calculus'

Introductory quantitative modeling of environmental systems.

**869 Geosimulation**

Spring. 3(3-0) Interdepartmental with Geography. Administered by Geography. RB: Basic understanding of data structures and algorithms covered in an introductory course of any programming language. R: Approval of department.

Theoretical concepts related to simulating dynamic geographic phenomena in the intersection between human and natural systems. Innovative agent-based methodology applied to complex social-environmental systems. Hands-on experience of agent-based modeling, with special emphasis on modeling human decision-making and its impact on the natural environment.

**891 Selected Topics in Environmental Science and Policy**

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course.

In-depth study of selected environmental science and policy issues.