

ENVIRONMENTAL STUDIES (ENVU)

Courses

ENVU 3100 Environmental Law, Regulations and Policy (4 Credits)

There has been explosive growth in environmental regulation in the United States in the last fifty years. In order to function in the environmental field or in other fields in which familiarity with environmental regulation is important, a professional needs to understand the policy context for environmental regulation, as well as have general familiarity with the major environmental laws, their applications and mechanisms. This course is an introductory survey of major federal environmental laws. This course reviews concepts of the English and American common law as they relate to the development of United States environmental law. Students learn the policy objectives, as well as the major provisions and approaches of the National Environmental Policy Act (NEPA), the Clean Water Act, the Clean Air Act, the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the United States approach to regulation of chemicals. Other laws are described as they relate to concepts in the above. Students also learn the roles and relationships of different branches and levels of government in assuring environmental protection.

ENVU 3150 Environmental Decision-Making (4 Credits)

This course provides a broad introduction to environmental decision-making processes with emphasis on understanding the step by step methodologies that can be applied in a number of diverse situations. The class combines analytical methods drawn from the decision sciences and applied ecology with insights from cognitive psychology. By analyzing a series of exigent environmental issues, students learn how to apply appropriate decision methodologies to both complex and simple environmental decisions. The elements of normative, descriptive, and perspective decision strategies are introduced, and students gain hands on experience applying these three decision strategies in different environmental contexts. Decision biases as well as choice architectures are presented, and the implications of personal values, beliefs, and principles for effective decision making are explored.

ENVU 3200 Ecology and Ecosystems (4 Credits)

This course is intended to provide a basic but firm understanding of the science of ecology from an ecosystem perspective. Students examine the ways in which those underlying principles and knowledge describe the world, how ecosystems function, and what services those systems and the discipline provide to mankind and the earth. Ecology as a scientific discipline has existed for more than a century, but in recent years has become increasingly important for understanding the basis and possible solutions to a myriad of environmental issues. Overall, this course provides the basic vocabulary and the underlying principles that give the science of ecology and ecosystems form and function.

ENVU 3250 Natural Resource Management (4 Credits)

Successful natural resource management requires effective multi-disciplinary planning integrating biological, physical, economic, and social sciences using components of human created constructions such as natural resource policies, guidelines, and collaborative planning procedures. A basic premise of the course is that the concept of "natural resources" is human defined and its management is to enhance resource use while maintaining ecological integrity. The emphasis is on the interdisciplinary planning and project implementation for the management of natural resources for desired future outcomes.

ENVU 3300 Sustainability Issues and Solutions (4 Credits)

This course is designed to familiarize students with basic concepts, principles and issues geared toward sustainability, and to provide working tools for sustainability planning. The three major interactive dimensions of sustainability are delineated (ecological sensitivity, social responsiveness and economic responsiveness) and cover case study examples. A Sustainability Lifecycle Analysis is developed to provide a guide for understanding sustainability and identifying sustainability intervention points for optimizing sustainability initiatives. While sustainability is a strong interdisciplinary subject, the course addresses sustainability in specific sectors, including energy, food, housing, financial services, urban planning, transportation and manufacturing. With those areas in mind, coursework centers on student development of sustainability plans in areas of special interest, including workplace, community of household.