

ENVIRONMENTAL ENGINEERING (ENVE)

Environmental Engineering Graduate Courses

ENVN 8316 OUR ENERGY FUTURE: SOCIETY, THE ENVIRONMENT AND SUSTAINABILITY (3 credits)

In this course, students will analyze our energy options including the environmental, economic, and ethical connections with a particular emphasis on electrical energy. The course doesn't prescribe a particular energy future but rather emphasizes development of the knowledge and skills to more effectively contribute to the conversation. To understand our future, the course begins with the present energy landscape and its historical underpinnings, then focuses on developing a student's ability to critically assess energy options by examining the associated implications, consequences, intent, origins, and bias. Students' own work, life, and academic experience are used in the course to underscore the individual relevance of these energy choices. The course includes the necessary science, but the greater emphasis is on the associated critical and creative thinking so that ultimately students can make informed, creative, sustainable energy choices. (Cross-listed with ENVN 4310, CACT 8316)

Prerequisite(s): Graduate standing.

ENVN 8336 INTRODUCTION TO GREEN INFRASTRUCTURE (3 credits)

This course provides an overview of green infrastructure including issues managed with green infrastructure (storm water quality and quantity, urban habitat value, urban sustainability, etc.); basic design and management parameters for best management practices (BMPs); case study applications of BMPs; treatment train assessment and evaluation; and regulatory and cost considerations. (Cross-listed with ENVN 4330).

Prerequisite(s): Graduate standing.

ENVN 8356 GLOBAL CLIMATE CHANGE (3 credits)

The primary objective of this course is for students to form a scientific, evidence-based, stance on current and future changes to the Earth's climate. To this end, this course will be based on scientific inquiry into the current state of knowledge. Particular emphases are placed on evidence and causes of change, and the associated environmental and social impacts, including: water resources, extreme weather, human health, and others of interest to the class. (Cross-listed with GEOG 8356, GEOG 4350, ENVN 4350).

Prerequisite(s): Graduate standing

ENVN 8826 INTRODUCTION TO ENVIRONMENTAL LAW & REGULATIONS (3 credits)

An introduction to environmental law and regulations intended for students pursuing careers in environmental sciences or related fields. The course emphasizes the origins, implementation, and enforcement of U.S. state and federal laws and regulations. Major federal environmental laws, covering air and water quality, solid and hazardous waste, pollution prevention and remediation, and natural resources will be discussed. Usually offered Fall semesters. (Cross-listed with ENVN 4820, BIOL 4820, GEOG 8826, GEOG 4820, PA 8826).

Prerequisite(s): Graduate Standing or Permission from the Instructor.