

# ENVIRONMENTAL STUDIES

## CURRICULUM COMMITTEE:

*Susan Clayton (Psychology), Chair*

*Matthew Mariola (Environmental Studies)*

*Melissa Schultz (Chemistry)*

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Issues related to the natural environment require a uniquely interdisciplinary focus to understand the way in which technological advances and human behavior affect fundamental ecological processes, what political and psychological tactics may be harnessed to address the problem, and how nature is discussed, described, and experienced. The field of environmental studies provides the opportunity to integrate multiple disciplinary perspectives in order to think about and understand environmental issues. The program at Wooster will encourage students to engage hands-on with environmental issues both inside and outside the classroom, and at both local and global levels.

Environmental Studies minors will be knowledgeable about core scientific concepts that relevant to the environment; be able to understand different ways of assessing the value of the natural environment; be comfortable with different means of examining and communicating about the environment; and be familiar with the ways in which social institutions contribute to environmental problems and potential solutions to those problems. They should also understand their own roles within the human-environment relationship. The Environmental Studies minor will complement a major in a traditional department so that students combine a detailed understanding of the knowledge and methods within a discipline with a focus on a particular topic.

Students with an Environmental Studies minor will complete their I.S. project within their major department. However, they are encouraged to include an environmental component to their I.S. when possible, and the Environmental Studies faculty will endeavor to help them to do so.

## Minor in Environmental Studies

Consists of 6 courses:

- ENVS 2000-20015
- One cross-listed course in Natural Sciences accepted for ENVS credit
- One cross-listed course in Social Science accepted for ENVS credit
- One cross-listed course in Humanities accepted for ENVS credit
- Two electives from Environmental Studies or cross-listed courses accepted for ENVS credit

## Special Notes

- No more than one course within a student's major discipline may be counted toward the Environmental Studies minor.
- In departments with multiple versions of a particular course, only the sections specified in parentheses after the course listing will count toward the Environmental Studies minor.
- Only grades of C- or better are accepted for the minor.

## ENVIRONMENTAL STUDIES COURSES

### ENVS 11000. SCIENCE, SOCIETY AND ENVIRONMENT

This course presents a number of concepts which lie at the core of the field of environmental studies. Instead of just looking at environmental problems, we examine their multidimensional causes (sociopolitical as well as biophysical) and what kinds of human and political actions can lead to solutions. The writing portion of this

“W” course is focused on producing both written and oral work (podcasts) for a popular audience, so students will learn techniques for turning complex environmental science topics into essays easily understood by an educated audience. [W]

#### **ENVS 20001-20015. ENVIRONMENTAL ANALYSIS AND ACTION**

Presents a multidisciplinary perspective on environmental topics by examining in depth an issue of global and/or local significance from the perspectives of the natural sciences, social sciences and humanities. Students will apply fundamental concepts from various disciplines to understand, formulate and evaluate solutions to environmental issues. *Prerequisite: At least one Natural Science course from the cross-listed courses accepted for ENVS credit and one course from the list in either Social Sciences or Humanities. May be repeated for credit as offerings vary. However, no more than two ENVS 200xx credits may count towards the minor. Annually. Spring.*

##### **ENVS 20001. WATER AND THE ENVIRONMENT**

A consideration of the chemical properties of water, its importance in religious, economic and cultural contexts, the various ways it can be polluted and prospects for allocating and treating it in a sustainable and equitable fashion.

##### **ENVS 20002. INVASIVE SPECIES**

Ecological impacts of biological invasions: a consideration of the consequences of the widespread movement of organisms around the world in a globalized economy.

##### **ENVS 20003. PLASTICS AND ENVIRONMENTAL CONTAMINATION**

The composition, history, social use and ultimate fate of plastics, as well as a wider analysis of contamination of the environment by persistent and endocrine-disrupting synthetic chemicals.

#### **ENVS 20500. ENTREPRENEURSHIP AND THE ENVIRONMENT**

This course explores what we mean by the concept of “entrepreneurship” and then applies the concept to several areas of society that have come to define the environmental challenges of the new century, including the production of food, the production of energy, and the disposal of wastes. For each area we will look at (a) the nature of the challenge; (b) what role entrepreneurial activity might play in meeting the challenge; and (c) some case studies of entrepreneurship in action to solve these social needs.

#### **ENVS 22000. FROM FARM TO TABLE: UNDERSTANDING THE FOOD SYSTEM**

The production and consumption of food interface with disciplines from biology and chemistry to political economy, sociology, and business management. The aim of this course is to introduce students to this broad, multidisciplinary analysis of the food system and get them thinking critically about where our food comes from, where it goes, and how to make the entire system more sustainable. [HSS]

#### **ENVS 23000. SUSTAINABLE AGRICULTURE: THEORY AND PRACTICE**

Agroecology is the “science of sustainable agriculture.” It serves as the scientific basis for devising more natural, less environmentally harmful farming practices that build soil fertility and plant resilience while maintaining adequate production levels. The goal of this course is to introduce students to a broad suite of sustainable agriculture principles and practices and to investigate the scientific basis for those practices. Students will learn agroecology techniques by actually practicing them in the campus Learning Garden. Students registering for the course are strongly recommended to simultaneously register for ENVS 23500: Gardening Practicum.

#### **ENVS 23500. GARDENING PRACTICUM**

An experiential, quarter-credit practicum that meets once per week for three hours at a time, for half the semester only (when offered in the fall, it will meet for the first 7 weeks; when offered in the spring, it will meet all weeks after spring break). The practicum will consist of students working independently or in pairs to variously prepare soil, plant seeds, weed, irrigate, apply fertilizers, manage pests, and harvest and process produce. The practicum includes lectures and other pedagogical activities depending on garden and weather conditions. (.25 credit). *Fall and Spring.*

#### **ENVS 31000. SUSTAINABLE DEVELOPMENT: PRINCIPLES AND PRACTICES**

This course will explore the intersection of development and sustainability. We will begin with a historical understanding of the idea of sustainable development, then shift to a more applied and experiential focus with an emphasis on case studies from around the world. Students will be come away with a deeper understanding of concepts that underlie sustainability, including the tragedy of the commons, the interface between population growth and resource use, societal solutions for increasing energy efficiency, and ecological economics.

#### **ENVS 40700, 40800. INTERNSHIP**

In consultation with a faculty member associated with the program, students may arrange academic credit for supervised work in an applied setting that is relevant to topics in environmental studies. Placement may be on-

or off-campus. Examples of on-campus internships might include work through the physical plant, exploring energy use on campus; through campus grounds, investigating aspects of campus plantings and land use; or through campus dining services, examining ways to promote local foods, reduce energy use, reduce food waste, or develop a composting program. In addition to the work, an internship will include an appropriate set of academic readings and written assignments, developed in consultation with the supervising faculty member, that will allow the student to reflect critically on his or her experience. (.5 - 1.0 credit) S/NC course. Prerequisite: Prior consultation with the faculty member and permission of the chair of Environmental Studies. Annually.

## **CROSS-LISTED COURSES ACCEPTED FOR ENVIRONMENTAL STUDIES CREDIT**

### **NATURAL SCIENCE**

#### **BIOLOGY**

- BIOL 10000. TOPICS IN BIOLOGY (Human Ecology) [MNS]**
- BIOL 20000. FOUNDATIONS OF BIOLOGY [MNS]**
- BIOL 20200. GATEWAY TO ECOLOGY, EVOLUTION, AND ORGANISMAL BIOLOGY [W, Q, MNS]**
- BIOL 35000. POPULATION AND COMMUNITY ECOLOGY**
- BIOL 35200. BEHAVIORAL ECOLOGY**
- BIOL 35600. CONSERVATION BIOLOGY**

#### **CHEMISTRY**

- CHEM 10103. CHEMISTRY OF THE ENVIRONMENT [Q, MNS]**
- CHEM 21600. ENVIRONMENTAL CHEMISTRY**

#### **GEOLOGY**

- GEOL 10500. GEOLOGY OF NATURAL HAZARDS [MNS]**
- GEOL 11000. ENVIRONMENTAL GEOLOGY [MNS]**
- GEOL 21000. CLIMATE CHANGE [Q]**
- GEOL 22000. INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS (GIS)**

### **SOCIAL SCIENCE**

#### **ECONOMICS**

- ECON 24000. ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS [HSS]**

#### **EDUCATION**

- EDUC 16000. FUNDAMENTALS OF ENVIRONMENTAL EDUCATION**

#### **HISTORY**

- HIST 30141. PROBLEMS IN HISTORY (Global Environmental History, American Environmental History) [HSS]**

#### **POLITICAL SCIENCE**

- PSCI 20200. ENVIRONMENTAL POLICY [HSS]**

#### **PSYCHOLOGY**

- PSYC 22500. ENVIRONMENTAL PSYCHOLOGY [HSS]**
- PSYC 34000. ADVANCED TOPICS (Psychology of Sustainability)**

#### **SOCIOLOGY/ANTHROPOLOGY**

- SOCI 20300. ENVIRONMENTAL SOCIOLOGY [HSS]**

### **HUMANITIES**

#### **ENGLISH**

- ENGL 16004. NON-FICTIONAL WRITING (Nature and Environmental Writing) [W, AH]**
- ENGL 24022. GREEN ROMANTICISM [AH]**

#### **GERMAN**

- GRMN 22800. TOPICS IN GERMAN CULTURE (How Green Is Germany?)**

#### **PHILOSOPHY**

- PHIL 21600. ENVIRONMENTAL ETHICS [AH]**

#### **RELIGIOUS STUDIES**

- RELS 26900-26929. TOPICS IN THEORIES AND ISSUES IN THE STUDY OF RELIGION (Environment) [R]**

#### **THEATRE AND DANCE**

- THTD 44304. ADVANCED SEMINAR IN THE VISUAL TEXT: GREEN THEATRE**