ENVIRONMENTAL STUDIES

Environmental Studies encompasses a broad range of issues that arise from the interaction of human beings with the natural world. The solutions to these problems often require students to think across and beyond existing disciplinary boundaries. The environmental studies major provides a framework for examining how humans experience, investigate and interact with their natural environment. The curriculum combines an interdisciplinary core that encourages students to explore the social, aesthetic, ethical, scientific, and technical aspects of environmental questions, with a disciplinary-based concentration that provides more focused knowledge and methodological tools with which to seek answers to questions raised in the core.

The Major: Students majoring in environmental studies must fulfill the core requirements of eight courses (including a two-semester senior thesis) as well as a concentration consisting of five courses (potentially with one additional prerequisite). Students are also required to fulfill an internship requirement of 200 hours.

I. THE CORE:

A. Majors are required to take the following courses:

- ENVR 203  Environmental Science  (Prerequisite: A Natural-Science Set)
- ENVR 204  Environment and Society (no prerequisites)
- ENVR 205  Nature and Human Culture (no prerequisites)

B. Majors must take two courses from two of the following three sets of courses. These courses cannot be counted as part of your concentration.

1) 200-level courses focusing on natural sciences
   - BIO 260  Environmental Toxicology
   - CHEM 212  Separation Science
   - BIO 270  Ecology

2) 200-level courses focusing on social sciences
   - ENVR 218  US Environmental Politics and Policy
   - ENVR 216  Comparative Environmental Politics and Policy
   - POLS 258  Environmental Diplomacy
   - ECON 222  Environmental Economics

3) 200-level courses focusing on humanities
   - ENVR 215/214  Environmental Ethics
   - ENVR 212  Literature and the Environment
   - ENVR 228  Caring for Creation
   - ENVR 290  Nature in East Asian Literature
C. Majors must take one 300-level seminar in the ES curriculum. This cannot count toward the student's concentration.
   - ENVR 302 Wetlands and Social Policy
   - ENVR 316 World Agriculture
   - ENVR 345 African Wildlife Conservation
   - ECON 325 Prices, Property and the Problem of the Commons
   - REL 310 “Wilderness” in the Religious Imagination

D. Majors must complete a two-semester thesis, which includes a senior seminar in the first semester.
   - ENVR 457
   - ENVR 458

E. Majors must complete a 200-hr internship in an environmentally-oriented organization off the Bates Campus by the end of the fall semester of their senior year. Internships at summer camps are strongly discouraged.

II) THE CONCENTRATION

The purpose of the concentration is to create greater depth in a student’s area of interest and to give students the skills to complete a successful thesis project as well as important tools for future employment.

A. Environmental Ethics:

(1) Philosophy 212 [Contemporary Moral Disputes] OR Philosophy/Envr 360 [Independent Study].


(3) Philosophy 256 [Moral Principles]


(5) One of the following:
   - Philosophy 324 A, B, or C [Seminar: Topics in Ethics]
   - Philosophy 3XX [Seminar: Topics in Environmental Ethics]
   - Political Science 393 [Environmental Justice]
B) Environmental Economics

1) ECON 101 Introductory Microeconomics
2) ECON 222 Environmental Economics
3) ECON Statistics
4) ECON Econometrics—PREREQUISITE: CALCULUS
5) 1 field course which will typically be:
   ECON 325 Prices Property and the Problem of the Commons
   or
   ECON 2XX New Course taught by Lynne Bennett
   or another 300 level course.

C) Environmental Chemistry

1) CHEM 108 (PREREQ IS 107)
   (b section required unless the a section was taken before student
   declared an ES major)
2) CHEM 212 Separation Science
3) CHEM 215 Descriptive Inorganic Chemistry
4) CHEM 217 Organic Chemistry (first semester)
5) One of the following courses:
   CHEM 218 Organic Chemistry (second semester)
   CHEM 223 Analytical Spectroscopy
   CHEM 315 Bioinorganic Chemistry
   GEO 2XX Low temperature Geochemistry (any Geo 100-level course as prerequisite)
   ES 181

D. Ecology

1) One 100-level biology course

   Recommended:
   BIO 110 Oceanography
   BIO 124 Plants and Human Affairs
   BIO 125 Environmental Microbiology
   BIO 168 The Insects
   BIO --- Introduction to Paleontology
   BIO 1xx The North Woods

2) BIO 201 Biological Principles

3) BIO 270 Ecology

4) One (or Two) of the following courses
ENVR 302  Wetlands Science and Policy  
BIO 313  Marine Ecology  
BIO 336  Field Ecology  
BIO 470  Seminar and Research in Experimental Ecology  
BIO 474  Seminar and Research in Marine Biology  

5) One (or none) of the following courses:  
ENVR s11 Ecological Restoration  
BIO 211  Marine Invertebrates  
BIO 268  Entomology  
S25  Biological Conservation and Human Communities  
S32 Experimental Marine Ecology  

E. Global Environmental Politics  

Many, if not most, environmental issues cross national political boundaries. They are transnational in character and often require global policy responses. At the same time, very often local environmental concerns are embedded in broader international political and economic structures. Students in this concentration focus on environmental policies in non-US settings and at the community, national, regional, and global level. This provides opportunities for analyzing the political and policy dimensions of environmental issues from the "bottom-up" and the "top-down."

1) POLS 171 - International Politics  
   or  
   SOC 160 – Globalization  

2) POLS 258 - Environmental Diplomacy  
   or  
   ENVR 2XX - Comparative Environmental Politics  

3-5) Three of the following, at least one of which must be at the 300-level:  
ECON 222 - Environmental Economics (req: ECON 101)  
ENVR 2XX - Comparative Environmental Politics  
ENVR 3XX - World Agriculture  
ENVR 345 - African Wildlife Conservation  
ENVR s27 - Sustaining the Masses  
ENVR s38 - Environmental Issues in Developing Economies  
POLS 234 - Third World Women and Gender in Economic Development  
POLS 258—Environmental Diplomacy  
POLS 345 - NGOs and World Politics  
POLS 395 - Politics of Biodiversity  
HIST 288 - Environment, Development and National Identity in Latin America
F. United States Environmental Politics

The use and management of our natural environment has been a major political topic in the United States beginning with the "conservation" versus "preservation" debates of the late 19th century. Since then, environmental issues have only increased in importance and broadened in scope, becoming a major concern of not only the government but also a broad range of social groups and activists. Students in this concentration study both the history and current state of government policy towards the environment, as well the development and nature of the social movements which played a critical role in making the environment a visible political issue.

1) ENVR 216 - US Environmental Politics and Policy
2) POLS 115 - American Government and Public Policy
3-4) Two of the following courses:
   POLS 227 - Judicial Power and Economic Policy
   POLS 230 - The US Congress
   POLS 2xx - Parties and Elections
   POLS 2xx - Political Participation
   ECON 222 - Environmental Economics (preq: ECON 101)
   ENVR s28 - Contemporary Maine Environmental Issues
   ENVR s34 - Chemical Pollutants: Science and Policy
   (prereq ES 203 or CHEM 108b)
   SOC 256 - Social Movements
5) One of the Following Seminars:
   POLS 3xx - Representation
   POLS 310 - Public Opinion
   POLS 393 - Environmental Justice (recommended: POLS 191)
   ENVR 302 - Wetland Science and Policy
   ENVR 3XX - World Agriculture

G. Regional Perspectives on Environment and Society
1) ANTHROPOLOGY 101
2) ENVR 2XX - COMPARATIVE ENVIRONMENTAL POLITICS
3-4) Two off-campus courses focusing on environmental questions within a particular cultural or geographic context.
5) One of the following 300-level seminars:
   ANTHRO 333 Culture and Interpretation
   ANTHRO 335 The Ethnographer’s Craft
   ANTHRO 339 Production and Reproduction
   ENVR 345 African Wildlife Conservation
   POLS 393 Politics of Biodiversity
   POLS 395 Environmental Justice
H. The Environment and Human Culture

1) ENVR 212: Literature and the Environment
2) ENVR 215: Environmental Ethics
3) ENVR 228: Caring for Creation: Physics, Religion and the Environment
4-5) Two of the following seminars, one of which must include the recommended background course:
   - Art 377A Picturesque Suburbia (background: one 200-level course in art history.)*
   - Anthropology 333: Culture and Interpretation
   - History 390F: The American West (background: History 140 or 141 or 142)
   - Religion 310: “Wilderness” in the Religious Imagination (background: one course in religion, preferably 115)

*Art 390A (Claude Monet) may be substituted for Art 377A.

I. “Nature” in the Literary and Visual Arts

This concentration is normally designed by the student in consultation with, and by the approval of, Professor Jane Costlow.

This design must meet the following criteria: 1) a coherent five courses, six if a necessary prerequisite for a course is involved; 2) the inclusion of at least two courses in literature and two courses in the visual arts; 3) the five courses must involve the study of landscapes in the literature and/or the visual arts of at least three different cultures; 4) one of the five courses must be a seminar; 5) one of the five courses may be an independent course (360 only).

Current courses which usually are available for this concentration include: Art 243, 245, 281, 377A, 390A; English 121u, 243, 264; ENVR 212, 290, s26; Religion 310. From time to time special course offerings are listed.

J. Environmental Geology (Proposed)

(1-2) Two courses from any of geology 200-level courses.
3) One course from any of geology 300-level courses
4) One Geology Short Term from any of short term offerings
5) ENVR 458B Environmental Geology