Environmental Studies

Environmental studies is broadly defined as the study of nature, including the relationship of humans to the rest of the natural world. Presently, human activities are altering the life systems of our home planet. Climate change, species extinction, atmospheric pollution and loss of ancient forests are common knowledge, as is the planetary impact of human populations and consumption habits. These problems have a biological basis that requires the application of the scientific method to understand them, to discern cause and effects, and to pose scientifically tenable solutions. However, concern for and stewardship of the planet is not solely the purview of the scientist. Our understanding of these issues is impossible without social, cultural, political, ethical and economic considerations. The work of understanding these trends and forming alternate visions for the future draws upon ideas, information and insight from disciplines across the curriculum as well as from co-curricular activities.

The goals of the environmental studies major and minor are two-fold: 1) to help students achieve cross-disciplinary perspectives on the environment, and 2) to create a community of concern among students and faculty who participate in the study area—a community that encourages learning how to act as well as to understand. Even if no environmental problems existed, students and faculty would study how natural systems function, how the arts and social studies reveal connections between humanity and nature, and how the environment has nurtured philosophical and religious ideas about the place of humans in the universe.

To complete a major or minor in environmental studies, a student must satisfy the following requirements designed to establish the breadth and depth of knowledge consistent with the goals of the environmental studies study area.

**Learning Outcomes**

- Explain core concepts in the natural sciences underlying major environmental issues
- Explain policy aspects of major environmental issues using the lens of anthropology,
sociology or economics

- Explain major environmental issues using the lens of history, philosophy, religious studies, the arts, or literature
- Interpret environmentally related quantitative information
- Communicate environmental ideas effectively in writing and oral presentation
- Construct a well-supported argument or creative work about environmental issues
- Integrate classroom and co-curricular learning related to civic engagement and environmental stewardship

**Degree Requirements for the Major**

**General College Requirements**
To earn a Bachelor of Arts degree with a major in Environmental Studies, a student must satisfy the following minimum requirements:
- General College Requirements (see “Curriculum” section), including the following requirements to satisfy the major:
- A total of 14 courses and a minimum of 54 credit hours*. At least half of the credits applied towards the student’s major must be completed at the College. In all courses the student must earn a grade of C- or better and a cumulative grade point average of at least 2.00. For students planning to pursue upper division coursework in Biology, students should be aware that a grade of C or better is required in Biology courses.
- *EXCEPTION: There is an exception for the number of required courses and minimum credit hours for students who complete a second major or minor in another discipline in addition to the ENST major. The depth requirement of the ENST major may be fulfilled by students who complete a second major or minor in any discipline at the College. In this case, a student must complete 10 courses and a minimum of 38 credit hours in ALL of the following categories EXCEPT C. Electives, 1. Depth Courses. Students must complete C. Electives, 2. Breadth.

**Common Courses**
A total of five common courses. ENST 100 should be completed by the end of the second year. The Environmental Application should be completed by the end of the third year, and
the Environmental Keystone Seminar during the fourth year:

- ENST 100 Introduction to ENST
- One of the following:
  - BIOL 101 with environmental focus
  - POB2 (BIOL 106)
  - POB1 (BIOL 105) and ENST 250#
  - BIOL 101 and ENST 250#
- One of the following:
  - CHEM 101 with environmental focus
  - CHEM103 and ENST 250
  - CHEM101 and ENST 250#
  - CHEM 480
  - Toolkit

From approved list of toolkit courses

Application Requirement

- One of the following:
  - ENST 390 Applied Sustainability Practicum
  - Approved Ind. Study or Internship
  - Approved Study Abroad or Field Studies course
- ENST 490
- Environmental Keystone Seminar

Should be taken in the junior year prior to SMP

DEPTH Requirement

- OPTION 1: DEPTH requirement may be satisfied by successful completion of an additional Major or Minor.

  OR

- OPTION 2: DEPTH requirement may be satisfied by 4 cross-listed courses in one of the ENST tracks.

- BREADTH (not used for Depth)
Other Track 1

- BREADTH (not used for Depth)

Other Track 2

- SMP 493/494
  
  *SMP may be completed in any discipline offered at SMCM*

  * See the SMCM Catalog for additional information on major credit count, courses offered and other information on major.

  # Students who use ENST 250 to fulfill their Biology or Chemistry requirements may not use ENST 250 for their Environmental Science Track Elective

**Environmental Sciences Courses**

- Two courses – 1 in biology and 1 in chemistry – as follows:
  
  - **BIOLOGY** – One course selected from:
    - BIOL 101 – Contemporary Bioscience with environmental focus
    - BIOL 271 – Ecology and Evolution and BIOL 271L
  
  - **Note:** For students planning to pursue upper division coursework in Biology, students should be aware that a grade of C or better is required in BIOL 271.

  - **CHEMISTRY**
    
    - One course selected from:
      - CHEM 101 – Contemporary Chemistry with environmental focus
      - CHEM 480 – Topics: Environmental Chemistry

**Electives**

- **DEPTH COURSES** Students choose one of the three options below to fulfill their depth requirement in order to provide significant expertise in a focused area. Alternatively, students may satisfy the depth requirement by completing a minor or a major in a field other than ENST. Only 1 track may count for completion of the depth requirement of the ENST major. Students who complete multiple tracks will not be awarded multiple majors.

  - Four ENST-crosslisted courses, all from a single Environmental Studies track from at least two different disciplines, one of which must be at the 300-400 level, or
  
  - A minor other than ENST, or
A second major

- **BREADTH COURSES** Students choose two ENST-crosslisted courses, one course from each of the ENST tracks not used to fulfill the depth requirement. A maximum of 4 credit hours of independent study can be used to fulfill the breadth requirement; this must be in addition to an independent study used to fulfill the Common Course requirement for Environmental Application. For students fulfilling the depth category by completing a major or minor other than ENST, please consult the ENST Major Handbook for a listing of ENST tracks and the associated SMCM majors and minors.

**Environmental Tracks**
The following courses, as well as other identified, occasional, ENST-crosslisted course offerings, can be used to satisfy the elective requirements of the major and minor:

- Environmental Science Track
  - BIOL 316 – Tropical Biology
  - BIOL 432 – Limnology
  - BIOL 463 – Ecology of Coastal Systems
  - CHEM 306 – Instrumental Analysis
  - ENST 265 – Earth Systems
  - ENST 295 – Topics in Environmental Science
  - ENST 250 – Introduction to Environmental Science
  - ENST 395 – Advanced Topics in Environmental Science
  - GEOL 130 – Introduction to Geology
  - ENST 382 – GIS Applications

- Environmental Policy & Social Sciences Track
  - ANTH 243 – Biological Anthropology
  - ANTH 302 – Food and Culture
  - ANTH 337 – Atlantic World Archaeology
  - ANTH 341 – Economic and Ecological Anthropology
  - ECON 350 – Environmental Economics
  - ECON 354 – Natural Resource Economics
  - ECON 372 – Economics of Developing Countries
• ENST 285 – Topics in Environmental Policy & Social Sciences
• ENST 385 – Advanced Topics in Environmental Policy & Social Sciences
• POSC 311 – Public Policy
• SOCI 355 – Demography
• Environmental Humanities Track
• ART 105 or ART 205 – Introduction to Visual Thinking (section with environmental focus)
• ART 233: Nature Forms
• ART 239 Painting and Drawing from Life: Fieldscapes
• ART 390 – Advanced Topics: The Artist Naturalist
• ENGL 106 – Introduction to Literature: Nature
• ENGL 130 – Literary Topics: Reading Nature
• ENGL 201 – Topics in Writing: Writing about Science
• ENGL 365 – Studies in American Literature: American Environmental Literature
• ENGL 390 – Topics in Literature: Poetry and Science
• ENGL 390 – Topics in Literature: Humans and Other Animals
• ENGL 395 – Advanced Topics in Writing: Nature Writing Workshop
• ENST 275 – Topics in Environmental Humanities
• ENST 375 – Advanced Topics in Environmental Humanities
• PHIL 321 – Environmental Ethics
• RELG 380 – Religion and Ecology
• TFMS 260 – Topics in Dance: Movement – Environmental Dance

Degree Requirements for the Minor

General College Requirements
Beyond all General College requirements and all requirements for a major discipline, the minor requires six (6) courses with at least 22 credit hours in courses as specified below. ENST minors may not complete a major in ENST. Students must earn a grade of C- or better in each required course for the minor and maintain an overall GPA of 2.0 or better. Pre-approved study abroad may fulfill certain minor requirements.
Required Courses

Six (6) courses with at least 22 credit hours in courses having an environmental focus as specified under a., b., and c. Study abroad is an option to fulfill minor requirements. Students must earn a grade of C- or better in each required course for the minor and maintain an overall GPA of 2.0 or better in these required courses:

ENST 100 Introduction to Environmental Studies

Science Requirement (one (1) of the following):
• BIOL 101 Contemporary Bioscience with environmental focus*
• BIOL 271 & 271L Ecology and Evolution with Lab
• CHEM 101 Contemporary Chemistry with environmental focus*
• CHEM 480 Topics in Environmental Chemistry
• ENST 250 Introduction to Environmental Science
• ENST 265 Earth Systems
• GEOL 130 Introduction to Geology

ELECTIVES: Minor requires four (4) ENST cross-listed or ENST courses. You must select at least one from each of the three Tracks (Sciences, Social Sciences/Policy Track, Humanities Track – see Track List. At least two of these four electives must be at the 300-400 level. You can satisfy no more than 4 credits with an independent study.

ELECTIVE – Environmental Science Track
ELECTIVE – Environmental Social Science & Policy Track
ELECTIVE – Environmental Humanities Track
ELECTIVE – OPEN CHOICE – Chose from 1 of the 3 ENST Tracks

*See the SMCM Catalog for additional information on major credit count, courses offered and other information on major.