

# Environmental Studies Major (ENS)

This interdisciplinary program provides a foundation in environmental studies within the framework of a liberal arts education.

Because of the broad spectrum of environmental fields, students are provided with flexibility in selecting a course of study that reflects their specific area(s) of interest (i.e., analytical laboratory studies, field-oriented biology, political science, or some combination). All students in the program are provided with a common foundation (the “Environmental Studies Core”) and the opportunity to focus their studies in either the Science or Policy Track. This B.S. degree program (57 to 60 hours) prepares students for future study and employment leading to several possible career paths in government, industry, research, and academia. Independent studies and internships are encouraged.

Graduates of the environmental studies program will demonstrate:

- an understanding of the place environmental studies holds in society and preparedness to successfully pursue a career path;
- an understanding of the scientific method, including construction of hypotheses, data collection and analysis, and the formulation of conclusions;
- an understanding of the basic concepts of environmental studies, including: the unity and diversity of life, principles of ecology, processes of evolution, and an understanding of how humans influence and are influenced by their environment;
- an ability to understand and critique primary scientific literature and communicate effectively to peers in written and verbal form.

Degree Type: Bachelor of Science (BS)

Program Contact: Professor Rick Kopp

**No minor required.**

**Students majoring in Environmental Science must choose one track.**

**Department:** Environmental Studies

**Type:** B.S.

Core Courses	19 hours
Tracks	39-41 hours
Science Track	
Additional Core Courses	
Elective Courses	
Policy Track	
Additional Core Courses	
Required Course Selections	
Elective Courses	
Total	58-60

## Core Courses

<b>Item #</b>	<b>Title</b>	<b>Credit Hour(s)</b>
BIO111	Biological Principles	4
BIO314	Evolution and Ecology	4
MAT111	Elementary Probability and Statistics	3
ENV402	Junior Seminar	2
ENV433	Environmental Science and Natural Resources	3
SOC355	Environment and Sustainability	3

## Tracks

Select remaining courses from one track.

## Science Track

## Additional Core Courses

<b>Item #</b>	<b>Title</b>	<b>Credit Hour(s)</b>
BIO212	Cellular and Molecular Biology	4
BIO214	Organismal Diversity	4
CHE111	General Chemistry I	3
CHE112	General Chemistry II	3
CHE113	General Chemistry II Lab	1
GEL113	General Geology	4

## Elective Courses

## Group 1

Complete 18 credits from the following:

Item #	Title	Credit Hour(s)
BIO300	Marine Biology	3
BIO311	General Microbiology	4
BIO316	Plant Taxonomy and Spring Flora	4
BIO320	Vertebrate Ecology	4
BIO327	Freshwater Biology	4
BIO335	Genetics and Molecular Biology	4
BIO435	Conservation Biology	3
CHE201	Organic Chemistry I	3
CHE202	Organic Chemistry Lab I - Techniques and Synthesis	1
CHE305	Analytical Chemistry	4
CHE309	Organic Chemistry II	3
CHE310	Organic Chemistry Lab II - Qualitative Analysis and Synthesis	1
CHE315	Spectroscopy	4
CHE337	Environmental Chemistry	3
CHE339	Environmental Chemistry Lab	1
CSC303	Fundamentals of Data Computing	3
ENV460	Internship in Environmental Science	1-3

## Group 2

Select one course listed in the Policy Track outside of the natural and physical sciences.

## Policy Track

### Additional Core Courses

Item #	Title	Credit Hour(s)
EC0223	Principles of Microeconomics	3
EC0337	Environmental Economics	3
PHI151	Ethics	3
PHI345	Environmental Philosophy and Ethics	3

### Required Course Selections

Item #	Title	Credit Hour(s)
	BIO212 or BIO214	4
	CHE111 or GEL113	4

### Elective Courses

## Group 1

Select 15 hours from the following:

<b>Item #</b>	<b>Title</b>	<b>Credit Hour(s)</b>
CSC303	Fundamentals of Data Computing	3
EC0221	Principles of Macroeconomics	3
ENV460	Internship in Environmental Science	1-3
POS300	World Politics	3
POS309	State Government	3
POS315	Public Administration	3
POS330	Globalization	3
POS337	Food and Politics	3
POS407	International Law and Organization	3
POS409	Kentucky Government	3
SOC306	Social Movements and Social Change	3
SOC324	Law and Society	3
SOC335	Sociology of Appalachia	3
SOC360	Sociology of Health, Illness, and Healthcare	3
SOC380	Race and Ethnicity	3
SOC400	Community and Economic Resilience	3
SOC415	Food, Health, and Environment	3

## Group 2

Select 3-4 hours from the following:

<b>Item #</b>	<b>Title</b>	<b>Credit Hour(s)</b>
BIO300	Marine Biology	3
BIO311	General Microbiology	4
BIO316	Plant Taxonomy and Spring Flora	4
BIO320	Vertebrate Ecology	4
BIO327	Freshwater Biology	4
BIO335	Genetics and Molecular Biology	4
BIO435	Conservation Biology	3
	<b>Total credits:</b>	<b>58-60</b>