

# COLLEGE OF HEALTH AND NATURAL SCIENCE

## Environmental Science and Policy

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**A Bachelor of Arts degree or a Bachelor of Science degree is offered in Environmental Science and Policy to traditional students.**

**A minor is offered in Environmental Studies.**

The mission of the Environmental Science and Policy program is to develop the values, knowledge and skills needed to solve environmental problems. We emphasize an experiential, interdisciplinary approach to teaching and learning.

Class projects, independent and group research, and/or community engagement are a part of all of our courses. We expect our graduates to understand relevant content areas and demonstrate proficiency in critical thinking, problem solving, inquiry and analysis, information literacy, quantitative skills, communication, technological literacy, teamwork, and civic engagement, as well as specific career and professional skills needed in the environmental field. The (B.S.) serves as preparation for careers in more heavily science-oriented fields.

The B.A. emphasizes the human dimensions of environmental issues, including the ethical, psychological, social, political, and economic factors involved in creating sustainable solutions. Successful completion of either of the Environmental Science and Policy majors provides students with a solid foundation for specialized graduate study, and the depth and breadth needed to find employment in the diverse fields addressing environmental problems.

## B.S. and B.A. in Environmental Science and Policy Core Requirements Core Requirements

**In addition to all degree requirements, the following courses must be completed successfully:**

BI218 Ecology (laboratory)  
 CIT222 Introduction to Geographic Information Systems: ArcView  
 ES103 Introduction to Ecosystem and Wildlife Conservation  
 ES104 Introduction to Natural Resource Conservation  
 ES108 Nature and Culture  
 ES210 Evolution of Environmental Thought  
 ES307 Natural Resource Law and Policy  
 ES480 Junior Seminar in Environmental Science  
 ES490 Environmental Issues: Senior Capstone Project  
 Math MT151 or higher

### **B.A. in Environmental Science and Policy: Major Electives Requirements**

In addition to the Environmental Science and Policy Core Requirements, choose at least 3 from the Human Society Electives list, and at least 1 from the Natural Science Electives list. (Minimum of 12 credits). Note: No course can count for two requirements in the major.

### **B.S. in Environmental Science and Policy Major Requirements and Major Electives**

In addition to the Environmental Science and Policy Core Requirements, choose 2 from the Human Society Electives list, 3 from the Natural Sciences Electives list, and take all the Major Requirements required courses listed below. Note: No course can count for two requirements in the major.

### **B.S. Environmental Science and Policy Major Requirements**

Choose any 3 of the following: CH101, CH103, GL101 GL102, GL205, PH101, PH102

(In addition to earlier math course):

MT221 Calculus I or

MT222 Calculus II or

MT260 Statistics

Choose one of the following:

BI430 Forest Ecology (laboratory) or  
ES320 Wetland Ecology and Protection (laboratory) or  
ES367 Water Resources (laboratory)

### Human Society Electives

AN220 Global Problems  
CIT230 Intermediate Geographic Information Systems: Arc/Info  
ES210 Evolution of Environmental Thought  
ES236 Environmental Education and Citizen Engagement  
ES240 Creating Sustainable Communities  
ES245 Alternate Energy  
ES301 Place, Community, and Regional Studies  
ES305 Health, Human Rights, and Environmental Justice  
ES307 Natural Resources Law and Policy  
HS240 American Environmental History  
HS329 The National Parks  
PA306 Philosophy of Science and Nature  
PUBH310 Foundations of Environmental Health  
SR346 Park and Natural Resource Management

### Natural Science Electives

BI101 Biology (laboratory)  
BI214 Coastal Ecology  
BI217 Tropical Forest Ecology  
BI218 Ecology (laboratory)  
BI231 Animal Behavior  
BI241 Evolutionary Biology  
BI250 Introduction to Plant Biology (laboratory)  
BI312 Vertebrate Biology (laboratory)  
BI375 Mammalogy (laboratory)  
BI430 Forest Ecology (laboratory)  
CH221 Environmental Chemistry  
CIT230 Intermediate Geographic Information Systems: Arc/Info  
ES245 Alternative Energy  
ES320 Wetland Ecology and Protection (laboratory)  
ES342 Wildlife Conservation  
ES367 Water Resources (laboratory)  
ES460-2 Internship in Environmental Science  
GL101 General Geology I (laboratory)  
GL102 General Geology II (laboratory)  
GL115 Global Change: The Oceans  
GL120 Global Change: The Atmosphere (laboratory)  
GL205 Environmental Geology (laboratory)  
HCA315 Epidemiology  
PH101 General Physics I (laboratory)  
PH102 General Physics II (laboratory)  
PUBH310 Foundations of Environmental Health

### Recommended Curriculum Guide for B.S. in Environmental Science and Policy

First Year					
Fall Semester		Credits	Spring Semester		Credits
ES103	Introduction to Ecosystems and Wildlife Conservation	4	ES104	Introduction to Natural Resource Conservation	4

ES108	Nature and Culture	3	ES210	Evolution of Environmental Thought	3
GLE101	First-Year Inquiry Seminar	3	_____	GLE Elective	3
GLE110	First-Year Composition	3	MT____	Second Math - MT151 or higher	3-4
_____	GLE Elective	3	_____	GLE Elective	3
	Total	16		Total	16

**Second Year**

<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
BI218	Ecology (laboratory)	4	ES____	Human Society Electives I	3
_____ _____ _____	Choose 1 from this list: CH101, CH102, GL101, GL102, GL205, PH101, PH102		_____ _____ _____	Choose 3 from this list: CH101, CH102, GL101, GL102, GL205, PH101, PH102	
_____	GLE Elective	3	CIT222	Introduction to Geographic Information Systems: ArcView	3
_____	GLE Elective	3	MT151	MT151 or higher -- Mathematics Requirement II	3-4
_____	Elective	3	GLE230	Second-Year Composition	3
	Total	17		Total	13

**Third Year**

<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
_____ _____ _____	Choose 3 from this list: CH101, CH102, GL101, GL102, GL205, PH101, PH102	4	ES480	Junior seminar in Environmental Issues	3
BI430 <u>or</u> ES320 <u>or</u> ES367	Forest Ecology (laboratory) <u>or</u> Wetland Ecology (laboratory) <u>or</u> Water Resources (laboratory)	4	ES____	Human Society Electives II	3
_____	GLE Elective	3	_____	Natural Science Elective I	4
_____	Elective	3	_____	GLE Elective	3

_____	Elective	3	ES307	Natural Resource Law and Policy	3
	Total	17		Total	16
<b>Fourth Year</b>					
<b>Fall Semester</b>		<b>Credits</b>	<b>Spring Semester</b>		<b>Credits</b>
ES490	Environmental Issues:  Senior Capstone Project	4	_____	Natural Science Elective III,  300 level or higher	4
_____	Natural Science Elective II	4	_____	Elective	3
_____	Elective	3	_____	Elective	3
_____	Elective	3	_____	Elective	3
	Total	14		Total	13
				<b>Total credits</b>	<b>122</b>

**Recommended Curriculum Guide for B.A. in Environmental Science and Policy**

<b>First Year</b>					
<b>Fall Semester</b>		<b>Credits</b>	<b>Spring Semester</b>		<b>Credits</b>
ES103	Introduction to Ecosystems and Wildlife Conservation	4	ES104	Introduction to Natural Resource Conservation	4
ES108	Nature and Culture	3	ES210	Evolution of Environmental Thought	3
GLE101	First-Year Inquiry Seminar	3	_____	GLE Elective	3
GLE110	First-Year Composition	3	MT____	MT151 or higher -- Mathematics Requirement	3-4
_____	GLE Elective	3	_____	GLE Elective	3
	Total	16		Total	16
<b>Second Year</b>					
<b>Fall Semester</b>		<b>Credits</b>	<b>Spring Semester</b>		<b>Credits</b>
BI218	Ecology (laboratory)	4	ES____	Human Society Electives I	3
_____	GLE Elective	3	GLE230	Second-Year Composition	3
_____	GLE Elective	3	CIT222	Introduction to Geographic	3

				Information Systems: ArcView	
_____	Elective	3	MT151	MT151 or higher -- Mathematics Requirement II	3-4
_____	Elective	3	_____	Elective	3
	Total	16		Total	15-16

**Third Year**

<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
_____	GLE Elective	3	ES307	Natural Resources Law and Policy	3
_____	Elective	3	ES480	Junior seminar in Environmental Issues	3
_____	Elective	3	ES____	Human Society Electives II	3
_____	Elective	3	_____	Natural Science Elective I	4
_____	Elective	3	_____	GLE Elective	3
	Total	15		Total	16

**Fourth Year**

<i>Fall Semester</i>		<i>Credits</i>	<i>Spring Semester</i>		<i>Credits</i>
ES490	Environmental Issues: Senior Capstone Project	4	_____	Elective	3
_____	Elective	3	_____	Elective	3
_____	Elective	3	_____	Elective	3
_____	Elective	3	_____	Elective	3
_____	Elective	3		Total	12
	Total	13		<b>Total Credits</b>	<b>121-122</b>

\*One or more additional electives may be needed to fulfill general education requirements. See [General and Liberal Education \(GLE\)](#).

**Minor in Environmental Studies**

The minor in Environmental Studies is intended to provide students not majoring in Environmental Science with an interdisciplinary concentration that emphasizes the many interactions between humans and the local and global environments. It is designed to build understanding of these relationships by examining areas of anthropology, biology, conservation, policy, law and sociology as they relate to the natural world.

**The minor requires completion of six courses:**

ES103 Introduction to Ecosystem and Wildlife Conservation

ES104 Introduction to Natural Resource Conservation

Two courses from the Human Society Electives listed above.

Two courses from the Natural Science Electives listed above.

## Program Courses