

# Environmental Studies (ENS)

## Division of Science and Mathematics

- **B.A. Major: 51-53 hours**
- **Minor: 27-30 hours**
- **Major/minor GPA required for graduation: 2.25**

### PROGRAM REQUIREMENTS:

- **Capstone: Seminar in Environmental Studies (ENS 490)**
- **Research: Seminar in Environmental Studies (ENS 490)**
- **Service: Seminar in Environmental Studies (ENS 490)**
- **Other Requirements: Complete core, additional, and elective requirements**

**Description of Major:** Environmental studies is a field that integrates the natural sciences with other disciplines. Through critical thinking and the use of the scientific method, environmental studies evaluates the complex relationships between humans and the environment.

**Mission:** The mission of the environmental science program at McKendree University is to educate students about issues related to environmental stewardship, conservation, and the use of natural resources. Through the development of critical thinking skills and the application of varying teaching approaches, students will gain the knowledge and skills necessary to affect positive change in their communities as well as the world at large. This includes the ability to participate actively in policy decisions related to environmental issues, to communicate scientific knowledge to the public, and to develop expertise about the ecosystems that we interact with daily.

### Student Learning Outcomes

*Students will:*

- Practice scientific inquiry using the scientific method.

- Effectively communicate to broad audiences, including individuals with scientific and non-scientific backgrounds.
- Integrate historical, ethical, sociological, and scientific knowledge as it applies to current environmental issues and propose solutions.
- Develop professional skills associated with their career goals.

**Preparation:** The environmental studies program prepares students to enter careers or pursue graduate work in a variety of fields, including those in environmental science, business, policy, law, and public health.

Students must earn a C- or better in all courses applied to the major or minor. No more than four credit hours of internship may be applied towards the major.

### BACHELOR OF ARTS

#### MAJOR REQUIREMENTS 51-53 crs.

#### CORE REQUIREMENTS 35 crs.

<b>BIO 108</b>	<b>BIOLOGY CORNERSTONE</b>	<b>1</b>
<b>BIO 111</b>	<b>PRINCIPLES OF ORGANISMAL AND POPULATION BIOLOGY</b>	<b>5</b>
<b>BIO 202</b>	<b>SCIENTIFIC COMMUNICATION (W)</b>	<b>2</b>
<b>BIO 250</b>	<b>INTRODUCTION TO ENVIRONMENTAL SCIENCE</b>	<b>3</b>
<b>BIO 300</b>	<b>BIOMEASUREMENT</b>	<b>3</b>
<b>CHE 100</b>	<b>CHEMISTRY IN THE MODERN WORLD</b>	<b>3</b>
<b>ENS 200</b>	<b>ENVIRONMENTAL METHODS</b>	<b>1</b>
<b>ENS 300</b>	<b>INTRODUCTION TO GLOBAL INFORMATION SYSTEMS</b>	<b>3</b>
<b>ENS 490</b>	<b>SEMINAR IN ENVIRONMENTAL STUDIES</b>	<b>2</b>
<b>ES 110</b>	<b>EARTH AND ASTRONOMICAL SCIENCE</b>	<b>3</b>
<b>HIS 275/375</b>	<b>UNITED STATES ENVIRONMENTAL HISTORY</b>	<b>3</b>
<b>PHI 208</b>	<b>ENVIRONMENTAL ETHICS</b>	<b>3</b>
<b>SOC 150</b>	<b>INTRODUCTION TO SOCIOLOGY</b>	<b>3</b>

**CHOOSE ONE OF THE FOLLOWING 3-5crs.**

<b>BIO 303</b>	<b>ECOLOGY (W)</b>	<b>5</b>
<b>BIO 320</b>	<b>CONSERVATION BIOLOGY</b>	<b>3</b>
<b>BIO 325</b>	<b>FIELD BOTANY</b>	<b>4</b>
<b>BIO 335</b>	<b>FISH BIOLOGY AND CONSERVATION</b>	<b>4</b>
<b>BIO 350</b>	<b>ANIMAL BEHAVIOR</b>	<b>3</b>

**CHOOSE ONE OF THE FOLLOWING 6-7 crs.**

<b>SOC 355</b>	<b>RURAL SOCIOLOGY</b>	<b>3</b>
<b>SOC 356</b>	<b>POPULATION AND DEMOGRAPHY</b>	<b>3</b>
<b>SOC 357</b>	<b>INEQUALITY AND ENVIRONMENTAL SOCIOLOGY</b>	<b>3</b>

**ELECTIVES 10 crs.**

*Students must take at least 10 credit hours from the following list of courses without double-dipping from the courses above.*

<b>BIO 303</b>	<b>ECOLOGY (W)</b>	<b>5</b>
<b>BIO 320</b>	<b>CONSERVATION BIOLOGY</b>	<b>3</b>
<b>BIO 325</b>	<b>FIELD BOTANY</b>	<b>4</b>
<b>BIO 335</b>	<b>FISH BIOLOGY AND CONSERVATION</b>	<b>4</b>
<b>BIO 350</b>	<b>ANIMAL BEHAVIOR</b>	<b>3</b>
<b>ECO 333</b>	<b>ENVIRONMENTAL ECONOMICS</b>	<b>3</b>
<b>ENG 255</b>	<b>LITERATURE AND THE ENVIRONMENT</b>	<b>3</b>
<b>ENS 470</b>	<b>INTERNSHIP</b>	<b>3-4</b>
<b>PSI 309</b>	<b>PUBLIC POLICY</b>	<b>3</b>
<b>REL 355</b>	<b>RELIGION AND CONCERN FOR THE NATURAL ENVIRONMENT (W)</b>	<b>3</b>
<b>SOC 355</b>	<b>RURAL SOCIOLOGY</b>	<b>3</b>
<b>SOC 356</b>	<b>POPULATION AND DEMOGRAPHY</b>	<b>3</b>
<b>SOC 357</b>	<b>INEQUALITY AND ENVIRONMENTAL SOCIOLOGY</b>	<b>3</b>

**ENVIRONMENTAL STUDIES**
**MINOR REQUIREMENTS 27-30 crs.**
**CORE REQUIREMENTS 21 crs.**

<b>BIO 108</b>	<b>BIOLOGY CORNERSTONE</b>	<b>1</b>
<b>BIO 111</b>	<b>PRINCIPLES OF ORGANISMAL AND POPULATION BIOLOGY</b>	<b>5</b>
<b>BIO 202</b>	<b>SCIENTIFIC COMMUNICATION (W)</b>	<b>2</b>
<b>BIO 250</b>	<b>INTRODUCTION TO ENVIRONMENTAL SCIENCE</b>	<b>3</b>
<b>ES 110</b>	<b>EARTH AND ASTRONOMICAL SCIENCE</b>	<b>3</b>
<b>ENS 200</b>	<b>ENVIRONMENTAL METHODS</b>	<b>1</b>
<b>PHI 208</b>	<b>ENVIRONMENTAL ETHICS</b>	<b>3</b>
<b>SOC 150</b>	<b>INTRODUCTION TO SOCIOLOGY</b>	<b>3</b>

**TWO COURSES FROM THE FOLLOWING 6-9 crs.**

<b>BIO 303</b>	<b>ECOLOGY (W)</b>	<b>5</b>
<b>BIO 320</b>	<b>CONSERVATION BIOLOGY</b>	<b>3</b>
<b>BIO 325</b>	<b>FIELD BOTANY</b>	<b>4</b>
<b>BIO 335</b>	<b>FISH BIOLOGY AND CONSERVATION</b>	<b>4</b>
<b>BIO 350</b>	<b>ANIMAL BEHAVIOR</b>	<b>3</b>
<b>ENS 300</b>	<b>INTRODUCTION TO GIS</b>	<b>3</b>
<b>ENS 470</b>	<b>INTERNSHIP</b>	<b>3-4</b>
<b>ENS 480</b>	<b>INDEPENDENT STUDY</b>	<b>1-4</b>
<b>ENS 490</b>	<b>SEMINAR IN ENVIRONMENTAL STUDIES</b>	<b>2</b>
<b>ECO 333</b>	<b>ENVIRONMENTAL ECONOMICS</b>	<b>3</b>
<b>ENG 255</b>	<b>LITERATURE AND THE ENVIRONMENT</b>	<b>3</b>
<b>PSI 309</b>	<b>PUBLIC POLICY</b>	<b>3</b>
<b>REL 355</b>	<b>RELIGION AND CONCERN FOR THE NATURAL ENVIRONMENT (W)</b>	<b>3</b>
<b>SOC 355</b>	<b>RURAL SOCIOLOGY</b>	<b>3</b>
<b>SOC 356</b>	<b>POPULATION AND DEMOGRAPHY</b>	<b>3</b>
<b>SOC 357</b>	<b>INEQUALITY AND ENVIRONMENTAL SOCIOLOGY</b>	<b>3</b>
<b>HIS 275/375</b>	<b>UNITED STATES ENVIRONMENTAL HISTORY</b>	<b>3</b>

## Environmental Studies (ENS)

### **ENS 200** **1**

#### **ENVIRONMENTAL METHODS**

This course will introduce students to the techniques used by environmental scientists to monitor terrestrial and aquatic ecosystems. The course will be hands-on, demonstrating both environmental techniques and the use of sampling equipment in the field. In addition, career opportunities related to the techniques demonstrated will be discussed to draw a specific link between the course work and real-world applications. Local experts and environmental workers will be guest speakers. Prerequisite: BIO 111. Fall, even years.

### **ENS 280-289** **3**

#### **SPECIAL TOPICS IN ENVIRONMENTAL STUDIES**

As needed.

### **ENS 300** **3**

#### **INTRODUCTION TO GLOBAL INFORMATION SYSTEMS**

This course will introduce students to the use of global information systems (GIS) software and its application to the management of aquatic and terrestrial ecosystems. Topics will include the projection of GIS data, the analysis of environmental data from a variety of landscapes, and the construction of well-developed maps to display parameters of interest. Prerequisite: Sophomore standing. Spring, even years.

### **ENS 380-389** **3**

#### **SPECIAL TOPICS IN ENVIRONMENTAL STUDIES**

As needed.

### **ENS 470** **3-8**

#### **INTERNSHIP**

### **ENS 480** **1-4**

#### **INDEPENDENT STUDY**

### **ENS 490** **2**

#### **SEMINAR IN ENVIRONMENTAL STUDIES**

This course is a guided course that will present students with a variety of topics and engage them in discussion and interpretation of current topics in environmental studies. A primary goal of this course is to allow students to develop their critical thinking and communication skills while exploring specific environmental issues in more detail. Prerequisite: Instructor consent. As needed.