



Think **HIGHER**
SIENA HEIGHTS UNIVERSITY

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ENVIRONMENTAL SCIENCE

Sienna Heights University • 1247 East Sienna Heights Drive • Adrian, MI 49221

www.sienaheights.edu



Environmental Science

The Environmental Science (ES) major at Siena Heights University transforms its students into environmental professionals. The major prepares students for a diverse set of career options. After receiving an in-depth understanding of environmental issues and systems, students can then go out into the world as problem-solvers. Upper-class ES students may choose to concentrate on either the chemical, biological or environmental management aspects of the program.

An interdisciplinary program of the Biology, Chemistry and Environmental Science departments, the curriculum offers the following academic benefits:

- A variety of lecture, laboratory, research and field courses supporting career options in both the public and private sector
- Courses relating environmental problem-solving, life cycle assessments, scientific computing, green design, research statistics and instrumentation to address the depth of environmental science
- Coursework preparing students for advanced degrees in fields like environmental science, law, policy, health, industry and conservation. Electives may be utilized to enhance preparation for specific growth programs
- Professional certifications and training
- Summer hands-on internship opportunities



A Place to Call Your Own

Siena Heights University is an active community member in leading green initiatives.

State, Local and National affiliates with the following:

- Michigan Association of Environmental Professionals
- Step-It-Up Lenawee
- Focus the Nation
- The Earth Charter
- Co-Op America Groups
- River Raisin Watershed Council

"The Environmental Science program has taken me places I never knew existed. I feel that I am already making a difference."

*— Kayla Palmer
SHU ES Student*



Hands-On Experience

Environmental Science majors at Siena Heights University can be involved in a variety of related events and activities, including:

- Paid summer internships
- Making a difference with classmates in our Green Light Environmental Science Group
- Hosting the annual Earth Day event
- Leading the campus-wide recycling program
- Studying natural habitat on site
- Completing a written senior research project
- Becoming a member of the tri-campus environmental committee to help design and implement sustainable solutions
- Cooperating with local environmental and climate change organizations such as Step-It-Up and River Raisin Watershed Council
- Delivering campus-wide and community presentations



“Once regarded as irrelevant to economic activity, environmental problems are drastically rewriting the rules for business, investors, and consumers, affecting over \$100 billion in annual capital flows.”

— Gary Gardner and

Thomas Prugh

Project co-directors

Worldwatch Institute State of the

World 2008



Bachelor of Science Degree Major

ENVIRONMENTAL SCIENCE

Environmental Science Requirements 25 semester hours

ENV 110	Introduction to Environmental Science	4
ENV 122	Geology	4
ENV 141	Climatology	3
ENV 152	Oceanography	3
ENV 351	Limnology	4
ENV 362	Toxicology	3
ENV 395	Junior Seminar in Environmental Science I	1
ENV 396	Junior Seminar in Environmental Science II	1
ENV 495	Senior Seminar in Environmental Science I	1
ENV 496	Senior Seminar in Environmental Science II	1

Science Requirements 32 semester hours

BIO 141	Basic Concepts of the Cell	4
BIO 241	Animal Biology	4
BIO 441	Ecology	4
CHE 141	General Chemistry I	4
CHE 142	General Chemistry II	4
CHE 350	Analytical Chemistry	4
PHY 241/261	Physics I	4
PHY 242/262	Physics II	4

Math Requirements 6 or 8 semester hours

MAT 174	Introduction to Statistics and	3
MAT 244	Statistical Analysis and Design or	3
MAT 181	Calculus with Analytic Geometry I and	4
MAT 182	Calculus with Analytic Geometry II	4

Speech Requirement 3 semester hours

TSC 101	Fundamentals of Speech Communication	3
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OPTIONS

Biology Option 16 semester hours

BIO 242	Plant Biology	4
BIO 341	Entomology	4
BIO 342	Genetics	4
BIO 360	Microbiology	4

Chemistry Option 17 semester hours

CHE 241	Organic Chemistry I	4
CHE 242	Organic Chemistry II	4
CHE 341	Physical Chemistry I	4
CHE 441	Instrumental Analysis	4

Environmental Management Option 15 semester hours

ENV 342	Waste Minimalization	3
ENV 441	Environmental Regulations	3
ENV 452	Hydrogeology	3
ENV 380	Training Certifications in each of the following:	2
	Safety Training	
	Hazardous Materials Transportation	
	RCRA Hazardous Waste Generator	
	Stormwater Operator	
	ISO 14001	

Liberal Arts 28-30 semester hours

General Electives 5-11 semester hours

Total for Degree 120 semester hours

"After I graduate, I know that I will be working to make a real difference to the quality of people's lives."

— Jim Felan

Another Kind of Green

SHU Environmental Science graduates receive state and industry environmental science certifications employers value. Faculty actively counsel and refer students to quality, high-paying employment opportunities in this growing field. Related career titles for Environmental Science majors (by discipline) are:

Biology

- Agricultural scientist
- Agricultural technician
- Biochemist
- Biologist
- Biomedical engineer
- Biotechnologist
- Forest ranger
- Forester
- Microbiologist
- Natural resource specialist
- Ocean technician
- Range manager
- Wildlife manager
- Zoologist

Chemistry

- Biochemist
- Biologist
- Biomedical engineer
- Biotechnologist
- Chemical technician
- Chemist

Environmental Management

- Air/Water quality manager
- Air pollution analyst
- Alternative energy/technology auditor
- Architect

For more information about the Environmental Science program at Siena Heights University please call the admissions office at (800) 521-0009, or email us at admissions@sienaheights.edu.