

Environmental, Earth, and Sustainability Sciences

The Environmental, Earth, and Sustainability Sciences major prepares students to understand the complex interactions between Earth's natural systems and human activities. Students develop knowledge in environmental science, geology, sustainability, climate, water and soil resources, conservation, and geographic analysis while gaining hands-on experience through fieldwork and laboratory investigations.

Through concentrations in Environmental Sustainability Sciences or Environmental & Geological Sciences, graduates are prepared to address environmental challenges, manage natural resources, promote sustainable practices, and support informed decision-making across public and private sectors. Typical industry sectors include environmental consulting, natural resources, government, energy, conservation, engineering, and research.

Job Title Examples:

- Environmental Scientist
- Environmental Consultant
- Geologist (with appropriate experience/licensure where applicable)
- Sustainability Coordinator
- Environmental Compliance Specialist
- Natural Resources Specialist
- Environmental Field Technician
- GIS Technician/Analyst
- Water Resources Technician
- Conservation Scientist

Hard Skills:

1. Environmental Sampling and Field Methods
2. Geographic Information Systems (GIS)
3. Data Collection and Environmental Analysis
4. Geological and Environmental Mapping
5. Laboratory and Field Research Techniques

Soft Skills:

1. Critical Thinking
2. Problem-Solving
3. Communication
4. Attention to Detail
5. Teamwork and Collaboration

Further Education/Training Required and/or Suggested:

A BS in Environmental, Earth, and Sustainability Sciences prepares students for a variety of entry-level careers in environmental science, sustainability, natural resource management, and geology. Depending on career goals, additional certifications, licensure, or graduate education may strengthen employment opportunities.

To Enter the Field:

1. **Geographic Information Systems (GIS) Certification**
 - a. Demonstrates technical proficiency in mapping, spatial analysis, and environmental data management.
2. **OSHA HAZWOPER (40-Hour) Certification**
 - a. Frequently requested for environmental consulting, hazardous waste management, and field investigation positions.

To Advance:

1. **Professional Geologist (PG) Licensure** (*for geology-focused careers where state licensure applies*)
 - a. Required or preferred for many consulting and geoscience leadership positions after gaining professional experience.
2. **Master's Degree** (*e.g., Environmental Science, Geology, Sustainability, Hydrology, Environmental Management, or Geographic Information Science*)
 - a. Supports advancement into research, consulting, leadership, and specialized technical roles.
3. **Specialized Certifications** (*e.g., GIS Professional (GISP), Certified Environmental Professional (CEP), LEED Green Associate*)
 - a. Can enhance qualifications depending on career interests.

Summary:

Additional certifications, field experience, and graduate education can expand career opportunities in environmental consulting, sustainability, geoscience, resource management, and environmental leadership.

Professional or Student Associations:

- Geological Society of America (GSA)
- National Association of Environmental Professionals (NAEP)
- Ecological Society of America (ESA)
- American Geosciences Institute (AGI)
- Association for Environmental Studies and Sciences (AESS)