

# ENVIRONMENTAL STUDIES/SCIENCE

## What can I do with this major?

### AREAS

### EMPLOYERS

### STRATEGIES

#### ENVIRONMENTAL REMEDIATION/COMPLIANCE

Ground water  
Surface water  
Soils  
Air  
Sediments:  
    Remediation  
    Liability  
    Audit  
    Compliance  
    Sustainability

Federal government:  
    Army Corps of Engineers  
    Department of Defense  
    Environmental Protection Agency  
    Department of Interior: Bureau of Reclamation,  
        Office of Surface Mining, Bureau of Land  
        Management  
    Department of Agriculture  
    Natural Resource Conservation Service  
Agricultural consulting firms  
Environmental consulting firms

Gain experience through internships, volunteer or other part-time positions with government or private remediation projects.  
Develop excellent communication skills, both oral and written, as well as the ability to work as part of a team.  
Conduct regulatory research regarding environmental issues in area of interest.  
Plan to travel to worksites.  
Seek experience with data management, analysis and tools used for remediation (e.g., GIS, CADD and regulatory/compliance software).  
OSHA HAZWOPER training may be required for some positions.

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#### WASTE MANAGEMENT

Risk assessment  
Quality control  
Logistics  
Planning  
Recycling  
Transportation  
Compliance  
Environmental engineering  
Public and environmental health  
Industrial hygiene

Federal, state and local government:  
    Environmental Protection Agency  
    Department of Energy  
    City/county waste management departments  
    Recycling centers  
Private waste management firms  
Consulting firms  
Nonprofit organizations

Pursue experience through volunteer, paid and intern positions related to waste management.  
Seek opportunities to hone communication skills, both written and oral. Take courses in technical writing.  
Develop decision-making and problem-solving skills, diplomacy and the ability to work under pressure.  
Demonstrate flexibility and willingness to look at issues from various perspectives.  
Gain familiarity with current technologies, regulations and statutes.  
Join community groups or service organizations that focus on environmental awareness; attend public meetings about waste management.  
Become familiar with Superfund and its programs. Learn about the activities of local chapters of citizen watch groups.

## AREAS

## EMPLOYERS

## STRATEGIES

### SOIL SCIENCE

Soil and water conservation  
Land use planning  
Waste disposal  
Environmental compliance  
Reclamation of contaminated lands  
Landfill operation and monitoring  
Agrichemical management  
Fertilizer technology  
Agricultural production: Food and fiber  
Research  
Education

Federal government:  
Environmental Protection Agency  
Natural Resource Conservation Service  
Department of Agriculture  
Department of Health and Human Services  
State farm bureaus  
Environmental research laboratories  
Agricultural or environmental consultant firms  
Privately owned farms and ranches  
Universities

Develop acute observational skills.  
Seek related experience through co-ops, internships or part-time jobs in area of interest.  
Gain extensive laboratory and research experience to prepare for research positions.  
Stay abreast of current environmental issues including policy, conservation and industry trends.  
Seek knowledge of technology used in natural resource management including software, geographical information systems and global positioning systems.  
Participate in related clubs, organizations and soil judging teams to build contacts and cultivate academic interests.  
Learn about certification programs offered by the Soil Science Society of America including soil science and agronomy.

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### AIR/WATER QUALITY MANAGEMENT

Testing/Analysis  
Watershed management  
Stream restoration  
Sustainable infrastructure  
Risk assessment  
Project development  
Compliance  
Permitting  
Modeling

Federal, state and local government:  
Environmental Protection Agency  
Geological Survey  
Natural Resource Conservation Service  
Fish and Wildlife Service  
Department of Agriculture  
Public works departments  
Consulting firms  
Private laboratories  
Nonprofit organizations  
Water treatment plants  
Consumer products manufacturers

Develop strong research skills through coursework with laboratory components, by assisting faculty with research projects or through related internships and jobs.  
Seek experience in student and community organizations related to the environment such as those focused on water resources, pollution or conservation.  
Stay up-to-date with local and federal regulatory agencies and laws pertaining to your specialty.  
Develop strong oral communication and technical writing skills, as well as the ability to collaborate in a team environment.  
Learn to use the tools and software associated with watershed modeling or air dispersion modeling  
Investigate certification programs offered by the American Institute of Hydrology.  
Be willing to work and travel to various client sites.

## AREAS

### **PLANNING AND CONSERVATION**

Natural resource management: Land, soil, water,  
plants, animals  
Sustainability management  
Water resources  
Aviation planning  
Transportation planning  
Building/Zoning  
Land acquisition  
Land use  
Recreation management  
Park/Preserve management  
Mining  
Construction

## EMPLOYERS

Federal, state and local government:  
Environmental Protection Agency  
Natural Resource Conservation Service  
National Oceanic and Atmospheric  
Administration (NOAA)  
Fish and Wildlife Service  
National Park Service  
Department of Agriculture  
Department of Transportation  
Public works departments  
Planning departments  
Utilities companies  
Forestry companies  
Indian nations  
Mining companies: Petroleum, mineral  
Consulting firms  
Real estate development companies  
Market research companies  
Colleges and universities  
Nonprofit organizations  
Land trust organizations: The Nature Conservancy  
or Trust for Public Land  
Zoological parks  
Hunting and fishing clubs  
Wildlife ranges

## STRATEGIES

Obtain experience through volunteer positions such  
as Student Conservation Association, and seek  
leadership positions.  
Seek research experience with professors, through  
coursework or through internships in the indus-  
try.  
Develop knowledge of land and water policies,  
ecology and conservation history. Real estate  
experience may be beneficial for some positions.  
Participate on planning boards, commissions and  
committees to stay abreast of local planning and  
conservation initiatives.  
Hone communication and negotiation skills for inter-  
acting with various stakeholders including land  
owners, elected officials and conservation and  
community representatives.

## AREAS

### ENVIRONMENTAL EDUCATION AND COMMUNICATION

#### Teaching:

- Elementary
- Secondary
- Post-Secondary
- Non-classroom education

#### Technical writing

#### Editing

#### Illustrating

#### Photography

#### Public relations

#### Tourism

## EMPLOYERS

Public and private schools, K-12  
Two-year community colleges/technical institutes  
Four-year colleges and universities  
Museums  
Zoos  
Nature centers and parks  
Publishing companies: Scientific magazines, professional journals, periodicals, textbooks, online publishers  
Newspapers  
Educational and scientific software companies  
Environmental organizations  
Government agencies  
Nonprofit organizations

## STRATEGIES

Gain experience working with students through tutoring, part-time employment or volunteering.  
Learn to work well with people of varying backgrounds and skills.  
Develop excellent interpersonal, communication and content area knowledge.  
Complete a teacher preparation program for K-12 positions, which varies by state. Learn about the endorsements for environmental science.  
Master's degrees may be sufficient for teaching at community or two-year institutions.  
Seek Ph.D. for teaching opportunities at colleges and universities.  
Join professional associations and environmental groups as way to learn about the field and network.  
Acquire thorough knowledge of photographic procedures and technology.  
Take advanced courses in technical writing or journalism classes or consider a minor in either.  
Join professional associations like the National Association of Science Writers or the Public Relations Student Society of America.  
Seek related volunteer or paid experiences with student/local publications to increase marketability.  
Consider earning an advanced degree in a communications field to specialize (e.g., scientific journalism or public relations).

## AREAS

## EMPLOYERS

## STRATEGIES

### ENVIRONMENTAL LAW

Political action/Lobbying  
Regulatory affairs  
Science policy  
Patent law  
Nonprofit or public interest  
Environmental Law  
Mediation

Law firms  
Large corporations  
Federal and state government:  
    Environmental Protection Agency  
    Department of Justice  
    Attorney General Offices  
Political Action Committees  
Nonprofit organizations (e.g., Green Action and  
    Natural Resources Defense Council).

Develop strong research and writing skills. Hone communication skills through public speaking courses, debate team or Toast Masters, a public speaking organization.  
Participate in pre-law honor societies and seek guidance from campus pre-law advisors.  
Maintain current knowledge of industry trends, laws and policies specific to area of interest (e.g., conservation, regulation compliance).  
Take courses in history, political science and/or legal studies to supplement science curriculum.  
Learn about the law school admissions process, maintain a high GPA and plan to perform well on the LSAT. Research schools with concentrations of interest (e.g., environmental law and policy, conservation, sustainable development).

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### GENERAL INFORMATION

- Environmental studies and environmental science differ from each other in the amount of science course work required.
- Environmental studies provides a broad base of hard sciences as well as social science coursework. Environmental science incorporates hard sciences and environmental sciences.
- Choice depends upon career focus, for example, administration or policy-making versus technical areas or research.
- Pursue volunteer or internship experience to test fields of interest and gain valuable experience. Take independent research classes if possible.
- Stay up-to-date with changing environmental legislation by reading related literature and journals and participating in professional associations.
- Attend seminars, conferences and workshops sponsored by professional associations or public interest groups and utilize networking opportunities.
- Learn local, state and federal government job application procedures. Utilize your campus career center staff for assistance.
- A bachelor's degree will qualify one for work as a laboratory assistant, technician, technologist or research assistant in education, industry and government.
- A bachelor's degree is also sufficient for nontechnical work in writing, illustration, sales, photography and legislation.
- A master's degree allows for greater specialization in a field and more opportunities in research and administration. Some community colleges will hire Master's level teachers.
- Doctoral degrees are necessary for advanced research and administrative positions, university teaching, and independent research.