

EARTH SCIENCES

What can I do with this degree?

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
 Research
 Education

Government agencies including:
 US Environmental Protection Agency
 Natural Resource Conservation Services
 USDA Forest Service
 US Department of Health and Human Services
 State farm bureaus
 Environmental research laboratories
 Agricultural or environmental consultant firms
 Privately owned farms and ranches
 Universities

Maintain knowledge of current environmental issues including policy, conservation, and industry trends.
 Develop acute observational skills.
 Stay current on technology used in natural resource management including software, geographical information systems, and global positioning systems.
 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.
 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.
 Become familiar with the federal job application procedure for government employment.
 Obtain Ph.D. for optimal research and university teaching careers.

SOLID WASTE MANAGEMENT

Chemistry
 Engineering
 Hydrology
 Logistics
 Planning
 Recycling
 Transportation
 Compliance

Federal, state, and local government
 Private waste management firms
 Consulting firms
 Nonprofit organizations

Develop strong communication skills, both written and oral.
 Develop decision-making and problem-solving skills, diplomacy, and the ability to work under pressure.
 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 flexible and learn to look at issues from various perspectives.

AREAS

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STRATEGIES

HAZARDOUS WASTE MANAGEMENT

Hydrogeology
Quality Control
Risk Assessment
Environmental Engineering
Public and Environmental Health
Industrial Hygiene
Biology
Chemistry
Geology
Chemical Engineering
Planning
Compliance

Federal, state, and local government
Private companies that generate hazardous waste in production
Hazardous waste management firms
Consulting firms
Nonprofit organizations

Consider a double major in hard science or engineering.
Attend public meetings on hazardous waste issues.
Gain laboratory experience and computer expertise.
Complete an internship in a government office or regulatory agency.
Gain experience with technical writing.
Get involved with local chapters of citizen watch groups.
Become familiar with Superfund and its activities.

AIR QUALITY MANAGEMENT

Engineering
Planning
Analytical Chemistry
Environmental Quality Analysis
Meteorology
Risk Assessment
Safety and Health Management
Toxicology
Project Development
Compliance

Federal, state, and local government
Private industry
Consulting firms
Nonprofit organizations

Stay up-to-date with federal regulations and both industry and regional standards.
Additional training in economics and policy is desirable.
Develop strong oral communication and technical writing skills.
Learn to work well under pressure and develop negotiation skills.
Seek volunteer or paid positions within area environmental groups.

WATER QUALITY MANAGEMENT

Aquatic Ecology
Aquatic Toxicology
Biology
Civil/Environmental Engineering
Hydrogeology and Hydrology
Drinking Water Supply and Treatment
Waste Water Treatment
Groundwater Protection
Surface Water Management
Estuary Management
Wetlands Protection
Compliance
Industrial Engineering

Federal, state, and local government
Corporations
Consulting firms
Nonprofit organizations
Treatment plants

Develop a strong chemistry background by taking additional courses.
Obtain laboratory skills by assisting faculty with research projects.
Maintain current knowledge of industry trends and regulations.
Develop interpersonal, oral communication, and technical writing skills.
Seek an advanced degree in policy for increased marketability.
Learn about certification programs offered by the American Institute of Hydrology.
Learn to use the tools and software associated with watershed modeling.

AREAS

EMPLOYERS

STRATEGIES

LAND AND WATER CONSERVATION

Biology
Ecology
Planning
Law
Geographic Information Systems
Preserve Management
Natural Resource Management
Soil Conservation
Land Acquisition

Federal, state, and local government
Indian nations
Utilities and timber companies
Consulting firms
Nonprofit organizations
Land trust organizations such as The Nature Conservancy or Trust for Public Land

Gain a solid background in the basic sciences while obtaining a broad-based education.
Obtain legal, real estate, and financial skills through coursework, internships or part-time jobs.
Volunteer through the Student Conservation Association (SCA) and hold an office.
Keep up with new funding sources.
Consider law school for careers as counsel to environmental organizations.

FISHERY AND WILDLIFE MANAGEMENT

Aquaculture
Botany
Data Management
Biology
Hatchery Management
Marine Biology
Ecology
Education
Research
Planning

Federal, state, and local government
Marine sport fisheries
Utility companies
Developers
Timber companies
Wildlife ranges
Scientific foundations
Zoological parks
Hunting and fishing clubs
Consulting firms
Nonprofit organizations

Develop a broad scientific education.
Obtain skills in areas such as planning, administration, communications, and negotiation through coursework, internships, or part-time jobs.
Get experience and skills in computers, statistics and computer modeling.
Join the Peace Corps as a segue way into federal government positions.
Learn about the federal job application process.

PARKS AND OUTDOOR RECREATION

Administration and Management
Law Enforcement
Recreation Planning
Natural Resource Management
Research
Site Operations and Maintenance
Ecotourism
Direct Mail Merchandising

National Park Service
Federal agencies
State, county, or city parks
Resorts
Marinas
Privately owned facilities
Nonprofit organizations
Tourism agencies

Develop a broad-based education that will develop both technical and interpersonal skills.
Gain expertise in additional areas such as communications, writing, fund-raising, negotiation, and computer applications.
Obtain working knowledge of a foreign language such as Spanish.
Learn to work well with and communicate with all types of people.
Participate in travel and recreation programs.
Join related organizations and seek leadership roles to gain experience planning trips and other programs.

AREAS

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STRATEGIES

FORESTRY

Consulting
Entomology
Hydrology
Natural Resource Management
Planning
Research
International Forestry
Urban Forestry

Federal, state, and local government
Consulting firms
Timber companies
Nonprofit organizations

Obtain skills with computers, statistics, and accounting through coursework, internships or part-time jobs.
Develop good communication and public relations skills.
Get a minor or double major in a technical area (soil science, wildlife or surveying) or in an arts and science area (business, economics, political science or computer science).

ENVIRONMENTAL EDUCATION AND COMMUNICATION

Teaching
Journalism
Tourism
Law Regulation
Compliance
Political Action/Lobbying

Federal, state, and local government
Public and private elementary, middle, and high schools
Two-year community colleges
Four-year institutions
Corporations
Consulting firms
Media
Nonprofit organizations
Political Action Committees

Master public speaking skills.
Learn certification/licensure requirements for teaching public K-12 schools.
Develop creative hands-on strategies for teaching/learning.
Publish articles in newsletters or newspapers.
Learn environmental laws and regulations.
Join professional associations and environmental groups as ways to network.
Become active in environmental political organizations.

PLANNING

Air Quality
Aviation
Building/Zoning
Land-Use
Consulting
Recreation
Transportation
Water Resources

Federal, state, regional, and local government
Corporations
Consulting firms
Banks
Real estate development companies
Law firms
Architectural firms
Market research companies
Colleges and universities
Nonprofit groups

Get on planning boards, commissions, and committees.
Have a planning specialty (transportation, water resources, air quality, etc.).
Master communication, mediation and writing skills.
Network in the community and get to know "who's who" in your specialty area.
Develop a strong scientific or technical background.
Diversify your knowledge base. For example, in areas of law, economics, politics, historical preservation, or architecture.

AREAS

ENVIRONMENTAL LAW

EMPLOYERS

Law firms
Large corporations
Federal and State government agencies including:
 US Environmental Protection Agency
 Department of Justice
 Attorney General Office
Nonprofit organizations, e.g. Green Action and
 Natural Resources Defense Council

STRATEGIES

Earn a law degree. Prepare for law school by maintaining a high g.p.a. and studying for the LSAT.
Build strong recommendations from faculty.
Work a part-time or summer job in a law firm.
Develop strong written and oral communication skills.
Participate in pre-law honor societies, debate teams, or moot court.

GENERAL INFORMATION

Environmental studies and environmental science differ from each other in the amount of science course work needed.

- Environmental studies provides a broad base of hard sciences as well as liberal arts or 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.
- Combine liberal arts skills with analytical skills to increase employability. Formally, obtain a double major or minor in one of these areas. Informally, obtain these skills through internships, co-ops, volunteer work, summer jobs, or independent research projects.
- Become familiar with current environmental laws and regulations. Stay up-to-date with changing environmental legislation.
- Join related professional associations; read related literature and journals to keep up with new developments.
- Attend seminars, conferences and workshops sponsored by professional associations or public interest groups.
- Network and get to know people who are working in area of interest.
- Research agencies/organizations of interest before applying for a position.
- Learn local, state and federal government job application procedures.
- Obtain graduate degree for job security/advancement.