Environmental Science

Environmental Remediation and Compliance

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

Environmental Remediation and Compliance Employers

Federal government:

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

Agricultural consulting firms

Environmental consulting firms

Environmental Remediation and Compliance Strategies

- 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.

Waste Management

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

Waste Management Employers

- Environmental Protection Agency
- Department of Energy
- City/county waste management departments
- Recycling centers
- Private waste management firms
- Consulting firms
- Nonprofit organizations

Waste Management Strategies

- 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.

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

Soil Science Employers

- 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

Soil Science Strategies

- 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: policy, conservation and industry trends.
- Seek knowledge of technology used in natural resource management: 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.

Air and Water Quality Management

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

Air and Water Quality Management Employers

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

Air and Water Quality Management Strategies

- 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.

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
- Renewable energy

Planning and Conservation 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
- **Real estate development companies**
- **Utilities companies**
- **Forestry companies**
- **Wildlife ranges**
- **Indian nations**
- **Mining companies (e.g., petroleum, mineral)**
- **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**
- **Consulting firms**

Planning and Conservation 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 industry.
- 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 interacting with various stakeholders: land owners, elected officials, and conservation and community representatives.

Environmental Law

- Political action/Lobbying
- Regulatory Affairs
- Science Policy
- Patent Law
- Non-profit or public interest
- Environmental law
- Mediation

Environmental Law Employers

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)

Law firms

Large corporations

Environmental Law Strategies

- 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, etc).
- 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).

General Environmental Science 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 degrees allow 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.