Environmental Geologist

Career Compass Geosciences

This career compass provides options, tips, suggestions, and strategies for how a student can obtain critical skills, experiences, and competencies in order to launch their geoscience career based on their academic standing. The content herein is based on data from the U.S. Bureau of Labor Statistics, interviews with personnel in the occupation, and research on available student opportunities.

Job Summary

An environmental geologist investigates the release or potential release of chemicals that may cause contamination of soil, groundwater, or air. They determine location and movement of contaminated media and implement solutions that meet the guidelines of regulatory agencies. They determine geologically safe locations for new landfills, hazardous waste disposal sites, and nuclear power plants. They may use geological, physics, chemistry, and mathematics knowledge in exploration of underground water, land reclamation, or other environmental problems.

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connecting earth, science, and people

Build Grow Connect

Undergraduate

- Geoscience professional society conference
- Clubs, student government, or geoscience professional societies
- Hone skills through public speaking or science communication courses, conference presentations
- Events, activities, and technical sessions at professional society conference — Also applicable at Graduate and Ph.D. level
- Geoscience internship with a non-profit, for profit organization or company, research institution, or federal agency
- First Aid/ AED/CPR training
- OSHA HAZWOPER training
- Geologist in Training Certification (ASBOG Fundamentals Exam)

  Also applicable at Graduate and Ph.D. level
- Degree in earth science, geosciences, or other natural science major
- Writing course outside the discipline (business or environmental law) or technical writing course
- Proficiency in using and understanding GIS
- Course work in math, hydrogeology, chemistry, environmental compliance and regulations, environmental engineering, applied geology, soil science, or microbiology
- Field, research and/or instrument experiences
- Write a thesis — Also applicable at Graduate level

Graduate/Master's

- Departmental committee, campus club, geoscience professional society
- Present research at a conference
- Publish research

  Also applicable at Ph.D. level
- Geologist in Training Certification or Professional Geologist license (ASBOG Fundamentals of Geology Exam and/or the Practice of Geology Exam) — Also applicable at Ph.D. level
- Degree in the geosciences
- Coursework in advanced math
- Map creation software or modeling software

  Also applicable at Ph.D. level
- Master's research project related to an environmental problem
- Public speaking or science communication courses

Ph.D./Post-doc

- Develop interpersonal skills
- Present complex scientific concepts to nontechnical audiences
- Dissertation topic(s) related to environmental issue
- Take a more focused approach in a discipline related to your career aspirations. Ph.D. is required for advanced research or faculty positions or even in the environmental consulting industry

Symbol Key

- Attend
- Communicate
- Network
- Participate
- Leadership
- Internship
- Scholarship
- Fellowship
- Academics