



GEOLOGY



Check out these topics to learn more about careers in geosciences, based on information from the University of Maryland graduation survey! For more information, visit the University Career Center at CMNS (UCC@CMNS): go.umd.edu/uccatcmns

Industries and Career Paths

Geology encompasses the study of the entire physical Earth and other Solar System bodies. Geologists work in fields ranging from those essential to society, like environmental resource management, natural hazard assessment, and energy and mineral extraction, to the abstract and academic, like planetary sciences and paleontology. Geologists are in the forefront of climate-change research. Geology majors are employed in government, industrial, academic, and educational settings. According to the U.S. Department of Labor, approximately 31,800 geoscientists (including geologists, geophysicists, and oceanographers) work in the United States. Many geology majors go into related fields with job titles that don't contain the words geology/geologist in them, but that put their geoscience skills to extensive use. Many professionals in communication, public policy, K-12 education and other areas of research and analysis hold degrees in geology.

Organizations

The following list showcases employers of UMD Geology undergraduates:

Public Service:

- Maryland Geological Survey
- U. S. Army Corps of Engineers
- U. S. Department of Agriculture
- U. S. Environmental Protection Agency
- U. S. Geological Survey

Private Industry:

- AECOM
- Energy Corporation of America
- Geosyntec Consultants

- Geotechnology Associates
- Seismic Surveys, Inc.
- Tetra Tech

Research:

- National Institute of Standards and Technology (NIST)
- National Oceanic and Atmospheric Association (NOAA)
- Oak Ridge National Laboratory
- U. S. National Museum of Natural History

Job Titles

Below are examples of positions that geology majors are qualified for upon graduation. This is not an exhaustive list, but a starting point for exploration.

- Energy Resource Geologist
- Environmental Resource Technician
- Geographer Remote Sensing – GIS technician
- Gemologist
- Geotechnical Engineering Consultant
- Geophysicist
- Laboratory Manager
- Mineral Commodity Specialist
- Museum Collections manager
- Urban and Regional Planner



Graduate Schools

The following is a list of schools where Geology graduates are pursuing graduate degrees:

- Columbia University
- Guildler School of the American Museum of Natural History
- John Hopkins University
- New Mexico State University
- Rice University
- Scripps Institute of Oceanography
- State University of New York, University at Buffalo
- Texas A&M University
- University of Bristol (UK)
- University of California, Santa Barbara
- University of Colorado
- University of Maryland Baltimore County
- University of Maryland College Park
- University of Massachusetts, Amherst
- University of North Carolina
- University of Otago (NZ)
- University of Texas, Austin

Skills Developed as a Geology Major

University of Maryland provides concrete skills for workplace success. These come from academic coursework, original research, and experiential learning. To see what employers want and examine ways to include technical and cross-disciplinary skills in resumes, interviews and on LinkedIn, review the skills inventory list at go.umd.edu/skillslist. For the “must have” career readiness competencies that employers are seeking, visit go.umd.edu/fourcompetencies.

Geology will prepare you with the following technical and cross-disciplinary skills to:

1. Employ the scientific method to address new questions.
2. Successfully organize and conduct complex scientific research projects.
3. Present research results effectively using all of the media current in industry and academia.
4. Employ appropriate analytic skills including whole-rock and petrographic description; field mapping in complexly deformed terrains; appropriate laboratory methods, including wet-lab methods, mass-spectrometry, and electron microprobe analysis.
5. Effectively access up to date information in the geosciences technical literature.
6. Employ supporting skills in chemistry, mathematics, and physics.

Geology Major Resources

The following resources will help you explore relevant career paths, as well as job postings:

- The Geological Society of America: <https://www.geosociety.org/>
- American Geosciences Institute: <https://www.americangeosciences.org/>
- American Geophysical Union: <https://careers.agu.org/paths/>
- Vault – Employer/Industry insights, rankings and reviews: <https://www.vault.com/>
 - <https://www.vault.com/industries-professions/professions/g/geologists>