

*What can I do with a major in...*

# Geology

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## GENERAL DESCRIPTION

Geology approaches the study of the earth with major emphasis on chemistry, physics, and biology as tools, and is concerned with all aspects of the composition, structure, dynamics, and history of the earth. Geology asks, and attempts to answer, basic questions such as "Why are the atoms in crystals arranged the way they are and what properties of matter determine this arrangement?"; practical questions such as "Is there any oil off the Atlantic coast and, if so, how much?" and historical questions such as "When and how did the Appalachian Mountains form?" The basic materials that support an industrial society - metals, fuels, etc., even the sand and gravel to make concrete - are geological materials. In the modern world, with the increasing environmental, energy, oil, gas and resource demands, geology and trained professionals in these areas, will indeed play a central role.

Bachelor's degree recipients in geology are most frequently employed as field assistants (a lot of geologic work goes on out-of-doors) or as laboratory technicians. For those students who also take the requisite training, the field of earth science teaching in secondary schools is available, and the demand is higher than average for qualified professionals in this area. In addition, energy and environment are two areas considered relatively "recession-proof"—good news for Geology majors interested in these fields.

Outstanding students are strongly encouraged to obtain advanced degrees (M.S., Ph.D.). Assistance in applying is enthusiastically provided by the Department of Earth and Environmental Science.

The job titles and hiring institutions which follow are meant to give you an idea of the careers available to geology majors, however many other possibilities also exist. You are encouraged to explore all career paths that interest you.

## POTENTIAL JOB TITLES

Architect	Meteorologist
Cartographer	Mineralogist
Computer analyst	Paleontologist
Conservator assistant	Park naturalist
Cooperative extension agent	Parks and natural resource manager
Crystallographer	Petrologist
Curator technician	Pollution control specialist
Earth Science teacher	Pollution remediator
Economic geologist	Sedimentologist
Geologist	Seismologist
Geodynamacist	Stratigrapher
Geophysics technician	Structural geologist
Glacial geologist	Surveyor
Hydrologist	Technical writer
Industrial hygienist	Urban/ regional planner
Instrumentation technician	Waste management specialist
Laboratory technician	Water quality control specialist
Landscape/nursery manager	Water remote sensing interpreter
Material analyst	Well logging specialist

## REPRESENTATIVE HIRING INSTITUTIONS

Conservation agencies  
Data management firms  
Development firms  
Engineering and consulting firms  
Environmental consulting firms  
Environmental Protection Agency  
Highway departments  
Local, state, & federal governments  
NASA

Mapping service companies  
Mining companies  
Natural History museums  
Oil and Mining industries  
Research institutes  
State Geologic surveys  
Universities  
U.S. Forest Service  
U.S. Geological Survey

## WHERE DO UMW GEOLOGY MAJORS GO?

### EMPLOYERS/INTERNSHIP SITES

- Engineering Consulting Services, Ltd.
- Stafford County Department of Planning
- U.S. Geological Survey
- Spotsylvania County Government
- The Student Conservation Association
- Marstel-Day, LLC

### GRADUATE SCHOOLS

- Old Dominion University, Master of Science in Biology, Aquatic Ecology
- Old Dominion University, Master of Science in Geology
- University of North Carolina, Chapel Hill, Master of Science in Geology
- Wright State University, Master of Science in Geology

## FOR MORE INFORMATION CONTACT

1. American Meteorological Society: [www.ametsoc.org/AMS](http://www.ametsoc.org/AMS)
2. American Petroleum Institute: [www.api.org](http://www.api.org)
3. Society of Exploration Geophysicists: [www.seg.org](http://www.seg.org)
4. American Assn. of Petroleum Geologists: [www.aapg.org](http://www.aapg.org)
5. American Inst. of Professional Geologists: [www.aipg.org](http://www.aipg.org)
6. American Geological Institute: [www.agiWeb.org](http://www.agiWeb.org)

*\*The Office of Career Services also maintains a resource library with a variety of books and other printed material where students can access additional information about their major or field of interest. Visit us in Lee Hall, Room 308 to learn more.*