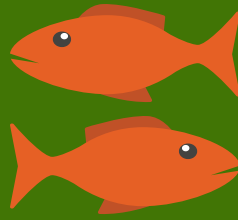


# GEOLOGY & GEOLOGICAL OCEANOGRAPHY



A bachelor's degree is good background for pursuing technical graduate degrees as well as professional degrees in Business Administration, Medicine or Law. Within the many facets of geology, there is often overlap of job functions. However, many geologists find advantage in becoming more specialized. Gaining experience is very important, and there are many opportunities for students to obtain volunteer, part-time, summer, field camp, internship and/or co-op experiences in various geological areas. Possess a love of the outdoors, an interest in nature and a desire to travel. Develop physical stamina to work and conduct research in remote areas under various conditions.

A bachelor's degree may be sufficient for entry-level industry positions.

A master's degree is often preferred for state survey work, oil industry and for advancement in the field. Employment prospects are best for those with master's degrees, familiarity with advanced technologies such as computer modeling and willingness to relocate. Maintain a high GPA and secure strong faculty recommendations for admittance to graduate school. Research licensure and certification laws by state for pursuing registered geologist credential. Obtain experience in mapping and surveying. Develop skills with measuring equipment as well as laboratory equipment and processes.

Acquire a business background to help in managing projects and assessing economic costs and benefits. Join groups directed toward improvement of natural resources, environment and pollution control including professional organizations related to interest area(s). Develop exceptional computer skills. Learn a foreign language for work in other countries.

Excellent verbal and written communication skills are essential. The ability to market your skills and write proposals is necessary to maintain steady work. Grants may be necessary to start and continue projects.

## AREAS OF OPPORTUNITY

- Stratigraphy
- Sedimentology
- Structural geology
- Geophysics
- Geochemistry
- Economic geology
- Remote sensing
- Paleontology
- Fossil energy
- Hydrogeology
- Coastal and marine geology
- Oceanography
- Environmental geology

National Labs  
 Environmental Protection Agency  
 Forest Service  
 Army Corps of Engineers  
 US Geological Survey  
 Bureau of Land Management  
 Department of Defense  
 State highway departments  
 Public utilities companies  
 Mines  
 Environmental consulting firms  
 Water testing labs  
 Land use planning agencies  
 Civil engineering firms  
 Surveying companies

US Geological Survey  
 Department of Defense

Private research groups and foundations

Consulting firms

## COMMON EMPLOYERS



## PROFESSIONAL ORGANIZATIONS



- [American Association of Petroleum Geologists](#)
- [American Geological Institute Careers in Geosciences](#)
- [American Geophysical Union \(AGU\)](#)
- [American Institute of Professional Geologists \(AIPG\)](#)
- [American Water Resources Association \(AWRA\)](#)
- [Association for Women Geoscientists Profiles](#)
- [Association of Environmental & Engineering Geologists \(AEG\)](#)
- [Geological Society of America](#)
- [Society for Sedimentary Geology \(SEPM\)](#)
- [Society of Economic Geologists \(SEG\)](#)
- [Society of Exploration Geophysicists](#)
- [The Society for Mining, Metallurgy and Exploration \(SME\)](#)



## STRATEGIES ON ENTERING THE FIELD

- Seek knowledge in engineering to aid communication, as geologists often work closely with engineers. Coursework in geophysics is also advantageous for this field.
- Gain experience with computer modeling and Global Positioning System (GPS). Both are used to locate deposits.
- Many geologists in this area of expertise work with oil and gas and may work in the geographic areas where deposits are found including offshore sites and in overseas oil-producing countries.
- This industry is subject to fluctuations, so be prepared to work on a contract basis.
- Develop excellent writing skills to publish reports and to solicit grants from government, industry and private foundations.
- Obtain leadership experience through campus organizations and work experiences for project management positions
- Obtain lab experience through coursework, research with professors and internship programs related to environmental geology.
- Consider additional courses in environmental studies, biology and physics to complement this concentration.
- Develop excellent written and speaking skills, particularly for interest in public policy.
- Gain a thorough understanding of federal and state government guidelines for the management of solid, liquid and gaseous waste. Investigate certification programs for Hazardous Waste Operations and Emergency Response Standard (HAZWOPER).
- Consider earning a law degree for work with land-use laws and legal matters.