

The Geosciences

Geoscientist is a broad term for a professional who studies planet Earth. A geoscientist may specialize in geology, oceanography, atmospheric science, environmental science, hydrology, geophysics, geochemistry, paleontology, soil science or physical geography.

Areas for employment of geoscientists include:

- Natural resource exploration and production
- Ecosystem monitoring, modeling, and assessment
- Environmental mapping, public health, and pollution remediation
- Observation and forecasting of natural hazards including climate change
- Investigation and modeling of the atmosphere, hydrosphere, cryosphere, and the solid Earth
- Science education and public outreach
- Scientific writing, editing, multimedia production, and software development
- Environmental and natural resource regulation, law, and forensics

ACC offers coursework in several geosciences: Geology, Oceanography, Environmental Science, Environmental Technology, Physical Geography, and Geographic Information Systems.

An Associate of Science (A.S.) or Applied Science (A.A.S.) in the geosciences can prepare you for a technician position in natural resources. Examples of these positions include: mud logger, GIS technician, hydrologic technician, college science laboratory technician, and park ranger. Promotion beyond a technician position often requires a Bachelor or Master of Science degree.

A Bachelor of Science (B.S.) degree in geoscience is required for employment in most government regulatory agencies, in small natural resource companies, in computer applications, and for some environmental technician and mapping positions. Examples of these jobs include: well-site geologist, permit reviewer, broadcast meteorologist, Phase I site assessment specialist, county soil scientist, mine geologist, and Earth science teacher.

A Master of Science (M.S.) degree is considered the professional degree in the geosciences and is required by most large corporations, in many positions in environmental investigation, monitoring and assessment, and for most managerial positions. Example of these jobs include: petroleum geologist, state geological survey geologist, EPA environmental investigator, GIS analyst, and community college instructor.

A Doctor of Philosophy (Ph.D.) or Science (D.Sc.) is required for most scientific research positions and for university teaching. Examples of these jobs include: NASA planetary geologist, university professor, NOAA climate researcher, museum paleontologist, research oceanographer, and consulting hydrogeologist.

Employment in the geosciences, especially in the energy and minerals industries, is cyclical. When the job market is tight, graduates with more advanced degrees are often hired to fill entry-level positions.

For further information: [ACC Department of Earth and Environmental Sciences](http://sites.austincc.edu/ees/) (sites.austincc.edu/ees/)
[ACC Department of Geographic Information Systems \(GIS\)](http://sites.google.com/a/austincc.edu/gis-acc/) (sites.google.com/a/austincc.edu/gis-acc/)
[American Geosciences Institute](http://www.americangeosciences.org) (www.americangeosciences.org)