

Career opportunities in the geosciences

(A job list created by the faculty of the VSU geoscience program)

The purpose of this list is to give you a wide range of ideas on potential career paths for geoscience graduates. We hope this list will help you with your job search as you prepare to graduate and leave VSU. Please note that this is not a comprehensive list! There are many additional jobs and career paths for geoscientists. The career paths listed below are ones taken by former VSU students (indicated with an “*”) or by friends of VSU geoscience faculty. In other words, this is a list of jobs that we know are open to our students.

Be aware that VSU geoscience students are well trained for jobs that seek entry-level applicants in the following position categories:

- **Geographers**
- **Geologists**
- **Environmental scientists**
- **Environmental specialists**
- **Hydrogeologists**
- **Hydrologists**
- **Soil scientists**
- **Urban and regional planners**
- **Hazard management specialists**
- **GIS specialists**
- **Lab technicians and field technicians.**

Of course, you should focus primarily on those jobs that are complementary to the academic course work that you completed at VSU.

The following is our full list of career opportunities. Entries that are followed by an asterisk (*) indicate a career path taken by VSU student:

1. Jobs in the geosciences:

- a. Jobs with local, county, state, or federal governments or agencies
 - i. Federal EPA*
 - ii. USGS (United States Geological Survey)
 - iii. U.S. Department of Energy (they hire many geoscientists)
 - iv. U.S. Department of the Interior
 - v. FEMA
 - vi. Natural Resources Conservation Service
 - vii. Geography-based agencies such as NOAA, NWS, or NGS
 - viii. BLM (Bureau of Land Management, a federal agency)
 - ix. National Forest Service (a federal agency)
 - x. U.S. Census Bureau
 - xi. US Army Corps of Engineers (as a civilian employee)
 - xii. State environmental regulation agency*
 - xiii. Urban and regional planning agencies*
 - xiv. State geologic surveys*
 - xv. GIS trainee, professional, or manager* (any level, local to federal)
 - xvi. State, county, or local Hazard Management Agencies
 - xvii. Water management (as in water management district or similar)*
 - xviii. State-level water and soil conservation agency
 - xix. Resource management agencies
 - xx. Game/fish conservancy

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- xxi. State Forest Service Agencies
- xxii. Water treatment plant*
- xxiii. Landfill management*
- xxiv. Various environmental oversight positions in government agencies*
- b. Jobs with environmental consulting companies (popular with many of our students)
 - i. Large international environmental consulting companies*
 - ii. Local engineering firms*
- c. Jobs with mining companies
 - i. Industrial minerals*
 - ii. Precious metals*
 - iii. Other mining (coal, sand and gravel, tar sands...)*
- d. Jobs with petroleum companies
 - i. Well logging*
 - ii. Geophysics (usually requires additional education, M.S. or higher)
 - iii. Other entry-level positions in the oil industry (these are rare)
- e. Jobs as a park ranger
 - i. National Parks
 - ii. State Parks*
 - iii. BLM ranger
 - iv. National Forest ranger
 - v. US Army Corps of Engineers ranger (a civilian position)
 - vi. Other
- f. Jobs as a K-12 science teacher
 - i. Middle school (Earth science)*
 - ii. High school (geology, earth science, or environmental science)*
- g. Jobs with an environmentally-focused special interest group or charity:
 - i. Environmental groups (Greenpeace, Audubon Society, Nature Conservancy)*
 - ii. Red Cross or other emergency aid agency (natural hazard management)
 - iii. Church-based groups that do environmental or hazards work
- h. Jobs as a lab technician or lab manager
 - i. Specific to geoscience research*
 - ii. General environmental lab
- i. Jobs as a field technician (usually a base-level entry-level position)
 - i. Geotechnician or field assistant in the mining or oil industry*
 - ii. Environmental field technician in the environmental consulting industry
 - iii. GIS field technician*

2. Jobs in fields that are closely related to the geosciences:

- a. Land surveyor*
- b. Corporate-level environmental worker (ex., environmental compliance officer)
- c. Writer (technical or other)
- d. Editor (usually for journals but also textbooks)
- e. K-12 teacher (other than geoscience-specific positions shown above)*
- f. Lab technician (general lab work, ex., health-care related lab)
- g. Writing geoscience-specific software

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3. Jobs in fields that are outside the geosciences:

- a. Health care* (requires additional schooling)
- b. Legal assistant (as an environmental specialist in an environmental law firm)
- c. Engineer (civil, environmental, or other, usually requires additional education)*
- d. Real estate agent or appraiser
- e. Farming/agriculture*
- f. Any job in industry*
- g. Food/retail manager*
- h. Open your own business
- i. Insurance industry and/or actuarial sciences (really big salaries for actuaries)
- j. Banking industry
- k. Professional photographer (particularly nature photography)

4. Go to graduate school (M.S., Ph.D., or other):

- a. Study geology*
- b. Study geophysics
- c. Study geography*
- d. Study GIS*
- e. Study urban and regional planning*
- f. Study engineering (civil, environmental, or other)*
- g. Study science education* or other area of education*
- h. Study law and get a J.D. (in environmental law or other)*
- i. Study some area of advanced healthcare*
- j. Study to become a health professional (pharmacist, optometrist, other...)
- k. Get an MBA
- l. Graduate study in any other area*

5. Jobs after graduate school:

- a. All of the above jobs*
- b. Senior-level positions in all of the above jobs*
- c. Management positions in any of the above jobs*
- d. Senior management positions in any of the above (i.e., VP or higher positions)
- e. Exploration jobs in mining*
- f. Senior positions in government employment*
- g. Start your own consulting company
- h. College professor*
- i. Lawyer*

6. Join the military:

- a. VSU AFROTC*
- b. Enlist into an officer training program*
- c. Join the National Guard

7. Pursue professional certification (not a career path, but generally a good idea):

- a. ASBOG PG certification (Professional Geologist)*
- b. AIPG Certified Professional Geologist (this is different from a “PG”)

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- c. GIS certification through the GIS Certification Institute
- d. Certified (Licensed) Land Surveyor. This is a state-level licensure/certification
- e. Hazmat certification

8. Do an internship (paid or unpaid):

- a. USGS internships are great, and they may be the best path to a USGS career
- b. GSA internships (Geological Society of America)
- c. NOAA, NASA, EPA or other internships
- d. Many other government internships exist
- e. Internships also exist in industry*

9. Volunteer for the Peace Corps or a similar organization (some are paid):

- a. Peace Corps*
- b. AmeriCorps
- c. Teach for a year in a foreign country (several programs exist)
- d. Other volunteer opportunities

10. Travel for a year:

A few comments: Be very careful about this choice – you must be able to justify your travel to future employers. Make sure your journey is more than a year-long party! You want to have something positive to show as a result of your travels. Writing a blog, article, or book is a great way to prove that your trip was something more than just a fun time. Hosting a web site/page is also good, and it can provide evidence of your digital skills.

- a. Global travel (ex., hike in Europe, visit every continent, take an environmental cruise)
- b. USA-specific travel (ex., hike the Appalachian Trail or the Pacific Coast Trail)*
- c. Serious adventure travel, climb Mt. Everest or something.
- d. Some type of environmentally themed travel

11. Additional skills that can make your resume more attractive to potential employers:

- a. Scuba diving certification (marine geology, aquatic ecology, underwater archaeology...)*
- b. Cave diving certification
- c. Proficiency in a foreign language (fluency in Spanish is great)*
- d. Hazardous materials certification (employers often pay for this in entry level jobs)*
- e. Various first aid training/certification (like CPR training)*
- f. Computer programming experience
- g. Flight school (many opportunities for pilots with geosciences background)
- h. Technical rock climbing training (particularly rappelling)*
- i. A “class C” drivers license (commercial license, the ones truck drivers have)*