

**Bachelor of Science: Geology**  
**Minor: Geology**

Geology is a broad interdisciplinary science that involves the study of Earth and its history. Geologists gather and interpret data about the Earth for the purpose of increasing our knowledge about natural resources and Earth processes. They provide basic information required for establishing policy for resource management and environmental protection. Geologists may explore for new mineral or oil resources, work on environmental problems, do research, or teach and often divide their time between work in the field, the laboratory, and the office.

The Bachelor of Science in Geology program at KU was designed to prepare students with enough fundamental understanding of geology to succeed in graduate school, and to provide the practical field experience needed to succeed as career geologists. Course requirements parallel the subjects on the Professional Geologist licensing exam. Employers recommend one or more internships to be successful and competitive when entering this field.

### **Career types associated with Geology**

*(Is this a good fit for you? Are you a...)*

- Investigative - "Thinker"
- Realistic - "Doer"
- Social - "Helper"

### **Related skills, values, and qualities**

- Proficiency in reading, writing, thinking, questioning, analyzing and problem solving
- Ability to conduct and explain scientific research
- Good manual dexterity and ability to operate scientific equipment
- Ability to make appropriate decisions and solve quantitative problems
- Aptitude for accuracy and detail
- Proficiency with computers
- Ability to work with people of varied backgrounds

### **Courses Geology majors typically enjoy**

- Biology
- Earth Science
- Economics
- Geography
- Social Sciences

### **Common interests of Geology majors**

- Visiting science museums, nature centers, or zoos
- Developing hobbies and collections related to soils, rocks, coins, or other artifacts
- Hiking, mountain climbing, camping, backpacking and other outdoors activities
- Exploring and traveling
- Playing games of strategy or putting together or solving puzzles
- Participating in Geology or science related clubs
- Reading science articles

### **For more information about the major**

Contact the Physical Sciences Department,  
425 Boehm, 610-683-4447, or visit  
[www.kutztown.edu/Geology](http://www.kutztown.edu/Geology)

### **KU Majors related to Geology**

Environmental Science, Geography, Marine Science

Investigative students may also be interested in:  
Anthropology, Biochemistry, Biology, Chemistry,  
Computer Science, Criminal Justice, Economics\*,  
German Studies, History, International Studies\*,  
Mathematics, Multicultural Studies\*, PA German  
Studies\*, Physics, Political Science, Psychology, Sec  
Edu- Math/Science, Sociology, Spanish, and Women's  
Studies\*

\* minor only

# FOUR STEPS TO SUCCESS

EXPLORE

DISCOVER

EXPERIENCE

IMPLEMENT

1<sup>ST</sup> YEAR

- Enroll in the Career Exploration Certificate.
- Attend info sessions to learn about career development and personal branding.
- Take a career assessment to identify and confirm interests.
- Get involved in campus clubs and organizations.
- Develop basic workplace skills through jobs or volunteer work.
- Talk with professors, family, and friends about career ideas.
- Conduct informational interviews with professionals working in fields of interest.
- Develop a relationship with your professors and faculty advisor.

2<sup>ND</sup> YEAR

- Meet with CDC career coach.
- Attend info sessions to learn about resume writing, and externships.
- Confirm your choice of major and consider options for double major or minor.
- Research careers of interest.
- Complete a job shadowing (externship) experience.
- Seek meaningful employment or volunteer work in a field related to your major.
- Explore options for undergraduate research and study abroad.
- Write a resume and have it reviewed by the CDC.
- Manage your online presence.

3<sup>RD</sup> YEAR

- Enroll in the Career Success Certificate.
- Complete an internship and/or undergraduate research.
- Attend info sessions about internships, interviewing, job search strategies, and grad school.
- Build a LinkedIn profile and continue to monitor your online presence.
- Complete a mock interview.
- Build skills through research projects, part-time employment, and volunteer work.
- Participate in employment panels, site visits & networking events.
- Attend internship & job fairs.
- Take on a leadership role in a student organization or work.
- Consider graduate school options and prepare for

4<sup>TH</sup> YEAR

- Attend your Senior Kick-off and other info sessions to prepare for job search/grad school.
- Update your resume and LinkedIn profile.
- Create cover letter drafts.
- Gain experience through internships and/or undergraduate research.
- Secure references for job/grad school applications.
- Create your "30 second" commercial/elevator pitch.
- Meet with CDC to develop job search strategies.
- Research employers.
- Network with professionals through events and social media.
- Join a professional organization in your discipline.
- Attend the senior etiquette luncheon or dinner.
- Participate in job fairs and on-campus interviewing.

## Sample Career Titles

Geology majors can be found working in a wide variety of career fields. Here are just some career titles that may be of interest. Please note that some jobs may require further education and training.

To learn more about these careers, visit <http://online.onetcenter.org> or [www.bls.gov/oco](http://www.bls.gov/oco).

- Agricultural Engineer
- Agriculture Consultant
- Architect
- Astronomer
- Cartographer
- Computer Analyst
- Economic Geologist
- Environmental Consultant
- Environmental Geologist
- Environmental Lawyer
- Forest Ranger
- General Manager: Petroleum or Mining Company
- Geochemist
- Geodynamacist
- Geologist
- Geomorphologist
- Geophysicist
- Geophysics Technician
- Geo-Technical Engineer
- Glacial Geologist
- Hydrologist
- Industrial Hygienist
- Instrumentation Technician
- Laboratory Technician
- Marine Advisor
- Materials Analyst
- Mathematician
- Meteorologist
- Mineralogist
- Mining Engineer
- National Park Service Professional
- Oceanographer
- Paleoceanographer
- Paleoclimatologist
- Paleontologist
- Park Naturalist/Ranger
- Peace Corps Worker
- Petroleum Engineer
- Petroleum Geologist
- Petrologist
- Planetary Geologist
- Pollution Control Specialist
- Pollution Remediator
- Project Manager
- Prospector
- Sales Engineer
- Sedimentologist
- Seismologist
- Soil Scientist
- Stratigrapher
- Structural Geologist
- Surveyor
- Technical Writer/Communicator
- Urban/Regional Planner
- US Foreign Service Worker
- Volcanologist
- Waste Management Specialist
- Water Quality Control Technician
- Water Remote Sensing Specialist
- Well Logging Specialist

## Common Internship Sites and Employers

Geology majors often find internships and employment in the following fields/industries.

- Colleges/Universities
- Construction Companies
- Consulting Firms
- Energy Companies
- Engineering Firms
- Marketing & Research Firms
- Mining Companies
- Petroleum Companies
- Railroads
- Research Laboratories
- State/Federal Government

# Handshake

Handshake is the primary online resource for preparing and connecting students and alumni with employers.  
[www.kutztown.edu/handshake](http://www.kutztown.edu/handshake)

## Useful Websites for Geology Majors

Whether you are researching related career fields, applying for internships or jobs, or planning to join a professional association, these websites are for you!

### Industry/Employment Information

American Geophysical Union  
[www.agu.org](http://www.agu.org)

Careers in Federal Government  
[www.makingthedifference.org](http://www.makingthedifference.org)

Environmental Careers World Job Bank  
[www.environmentaljobs.com](http://www.environmentaljobs.com)

National Park Service  
[www.nps.gov](http://www.nps.gov)

New Scientist Jobs  
[www.newscientistjobs.com](http://www.newscientistjobs.com)

Science Careers  
<http://sciencecareers.sciencemag.org>

USGS Coastal and Marine Geology Program  
<http://marine.usgs.gov>

LinkedIn Jobs  
[www.linkedin.com/jobs](http://www.linkedin.com/jobs)

### Professional Associations

American Geological Institute  
[www.americangeosciences.org](http://www.americangeosciences.org)

American Water Resources Association  
[www.awra.org](http://www.awra.org)

Association for Environmental Studies and Sciences  
<https://aessonline.org>

Geological Society of America  
[www.geosociety.org](http://www.geosociety.org)

National Association of Environmental Professionals  
[www.naep.org](http://www.naep.org)

National Recreation & Park Association  
[www.nrpa.org](http://www.nrpa.org)

North American Association for Environmental Education  
[www.naaee.org](http://www.naaee.org)

### Related Area Employers

Earth Engineering  
Environmental Strategy Consultants  
Geo-Technology Associates, Inc.  
Heritage Conservancy  
Langan Engineering  
Maine Drilling & Blasting  
National Park Service - Valley Forge  
Oak Ridge Institute  
Pennsylvania Department of Conservation and Natural Resources  
Terraphase Engineering  
U.S. Environmental Protection Agency  
Wildlands Conservancy

# Building Your Resume for a Career in Geology

Building a strong resume for your career field starts long before you ever start your job search. Employers want to hire graduates who not only have the necessary educational background but also have experience applying that knowledge.

## Gia Geology

ggeog000@live.kutztown.edu, [www.linkedin.com/in/gia](http://www.linkedin.com/in/gia), 555-555-5555

### PROFILE

Interested in working for a research laboratory as a geoscientist.

### QUALIFICATIONS

- Strong research, critical thinking and analytical skills
- Experience analyzing geographic data using GIS
- Excellent written and oral communication skills
- Aptitude for accuracy and detail

### EDUCATION

B.S. Kutztown University of Pennsylvania  
Major: Geology  
Minor: Geography  
GPA: 3.54  
Dean's List  
Kutztown, PA  
May 20xx  
Fall 20xx-Spring 20xx

**Related Courses:** Field Geology, Environmental Geology, Mineralogy, Structural Geology, Cartography, Sedimentology Stratigraphy, Hydrogeology, Introduction to GIS, Urban Geography, Environmental Planning

A.A Reading Area Community College  
Major: General Studies  
Dean's List  
Reading, PA  
Dec 20xx  
Fall 20xx-Spring 20xx

### INTERNSHIP & EXTERNSHIP EXPERIENCE

Geoscience Inc.  
Geoscience Intern  
Assisted geoscientists with research, data collection and analysis  
Maintained subsurface computer mapping system and plotted well information  
Digitized and scanned maps and well data  
Collected soil samples and performed analyses  
Philadelphia, PA  
Summer 20xx  
Extern  
Observed daily functions of geoscientists including mapping and soil/sediment analysis  
Discussed current trends in geoscience research such as GIS and remote sensing  
Nov 20xx

### RESEARCH EXPERIENCE

*Calculating Soil Erosion by Water in rural Northeastern Pennsylvania*  
Dr. Geology  
Assisted professorial advisor with soil surveys and data collection  
Conducted literature review focused on national erosion rates and potential causes  
Kutztown, PA  
Summer 20xx

### CAMPUS INVOLVEMENT & PROFESSIONAL DEVELOPMENT

Member, Kutztown University Geology Club  
Member, Geographical Society at Kutztown University  
Member, American Geological Institute  
Volunteer, Kutztown University Earth Day Celebration  
Recipient, Career Success Certificate, Kutztown University Career Development Center  
Recipient, Career Exploration Certificate, Kutztown University Career Development Center  
Fall 20xx-Present  
Fall 20xx-Present  
Fall 20xx-Present  
April 20xx-20xx  
Fall 20xx  
Fall 20xx

### WORK EXPERIENCE

Starbucks  
Barista  
Train new employees on store policy and procedures  
Provide excellent customer service  
Allentown, PA  
May 20xx-Present

Learn more about your field and develop the necessary skills for employment by gaining hands-on experience through internships.

Utilize summer breaks to acquire valuable experience via volunteer or employment opportunities related to your major.

Develop professionally through campus involvement and professional memberships. This illustrates responsibility, leadership abilities and time management skills.