

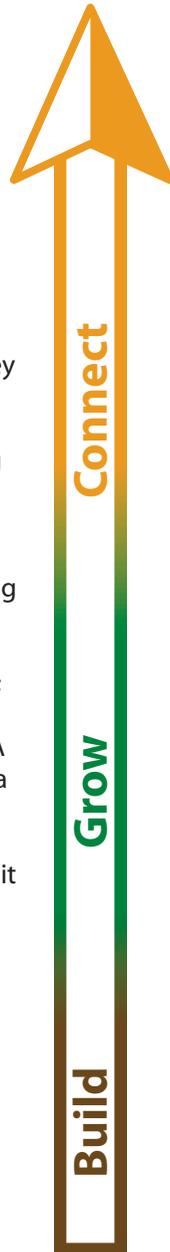


This career compass provides options, tips, suggestions, and strategies for how a student can obtain critical skills, experiences, and competencies in order to launch their geoscience career based on their academic standing. The content herein is based on data from the U.S. Bureau of Labor Statistics, interviews with personnel in the occupation, and research on available student opportunities.

## Job Summary

An assistant professor specializes in a specific sub-discipline of the geosciences. Depending on where they are employed (2-year college or a 4-year college or university), they may spend their time teaching, conducting research, publishing original research, applying for grants to fund their research, or supervising research students, research staff and/or teaching assistants. They may also serve on department, college, university, or professional organization committees; do outreach and are involved in advising and/or mentoring students. A Ph.D. may not be required to teach at a 2-year college as it is typical to have a master's degree in the discipline or to teach as an adjunct instructor (18 credit hours in discipline needed).

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## Undergraduate

- Geoscience professional society conference
- Clubs, student government, or geoscience professional societies
- Hone skills through public speaking or science communication courses, conference presentations
- Events, activities, and technical sessions at professional society conference or alumni from your undergraduate institution
- Geoscience internship with a non-profit, for profit organization or company, research or educational institution, or federal/state agency
- Volunteer in public Earth science-related educational events at local schools, museums, in your community, etc.

Also applicable at Graduate level

- Degree in earth science, geosciences, or other science or math major
- Course work in math, chemistry, physics, applied geology as required by program
- Lab, field, or instrumentation experience
- Teaching assistant or tutor for introductory geoscience course
- Write a senior thesis or other independent research

## Graduate/Master's

- Departmental committee, campus club, graduate student organization, geoscience professional society
- Events, activities, and technical sessions at professional society conference
- Collaborate with colleagues on research projects and publish research
- Hone and demonstrate oral and communication skills through courses, involvement in the geoscience community, or via presentations at conferences
- Become familiar with resources and opportunities associated with becoming a faculty in higher education institutions

Also applicable at Ph.D. level

- Produce a thesis
- Degree in the geosciences or other related science
- Master's research project
- Advanced coursework as needed
- Public speaking or science communication courses
- Teaching assistant for geoscience course

Also applicable at Ph.D. level

## Ph.D./Post-doc

- Present complex scientific concepts to nontechnical audiences
- Present research at conference
- Assist with undergraduate field trips, community outreach
- Develop interpersonal skills
- Professional development courses about teaching and preparing for the professoriate through your institution or geoscience professional society
- National Association of Geoscience Teachers (NAGT) workshops and resources related to preparing for an academic career in the geosciences

- Degree in the geosciences
- Dissertation topic(s) related to specific area of geoscience
- Knowledge at the most advanced frontier of a subdiscipline
- Practice of synthesizing and evaluating geoscience research as well as solving critical problems in research
- Guest lecture or teach your own course

Symbol Key

- Attend
- Communicate
- Network
- Participate
- Leadership
- Internship
- Scholarship
- Fellowship
- Academics