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**

Geophysicists use the principles of physics to learn about the Earth's surface and interior. Their work includes studying the properties of Earth's magnetic, electric, and gravitational fields. They employ field, laboratory, and computational techniques in the investigation, measurement, analysis, evaluation, and interpretation of phenomena related to the structure, composition, physical properties, and dynamics of the Earth's surface and interior.

**Undergraduate**

- Clubs, student government, or geoscience professional societies
- Hone skills through courses, community involvement, and conference presentations
- Summer of Applied Geophysical Experience
- UNAVCO’s Research Experiences in Solid Earth Sciences for Students (RESESS) or UNAVCO Student Internship Program (USIP)
- Incorporated Research Institutions for Seismology (IRIS) internship
- Southern California Earthquake Center (SCEC) internships SURE or USEIT
- National Lab (may require U.S. citizenship or ability to obtain a security clearance)
- For-profit industry internships
- Degree in geosciences, physics, math, engineering, or environmental science
- Research experience

**Graduate/Master’s**

- Assist with undergraduate field trips, community outreach
- Present research at a conference
- Publish research
- Events, activities, and technical sessions at conferences
- Departmental committee, clubs, geoscience professional societies
- UNAVCO Student Internship Program (USIP)
- For-profit industry internships
- National Lab (may require U.S. citizenship or ability to obtain a security clearance)
- Summer of Applied Geophysical Experience
- IRIS Early Career Investigators program
- Independent geophysics research with qualifiable skill development and scientific contribution
- Lab, field, applied research, or instrumentation experience
- Become a teaching assistant
- Courses in geophysics, computer science, and applied math and physics (heavy emphasis on computational skills)
- Master’s thesis topic related to geophysics

**Ph.D./Post-doc**

- Conferences, campus career fairs, campus career/job presentations, communities in and out of geosciences
- Present research at conference
- Publish research, collaborate with colleagues on research projects
- Host session at professional conference, lead undergraduate field trips, community outreach
- NISEE internships, fellowships, and research opportunities
- Mentor undergraduate student research project
- National Science Foundation Postdoctoral Fellowship
- Become a teaching assistant
- Extensive applied research, computer programming, lab, field, or instrumentation experience
- Advanced courses in geophysics, applied math and physics, and courses with major computing/computer science components
- Dissertation topic(s) related to geophysics