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Career Compass Geosciences

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.

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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.

Undergraduate

- Clubs, student government, or geoscience professional societies Hone skills through courses, community involvement, and
- conference presentations Geoscience professional society conference

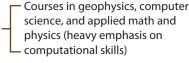
- Summer of Applied Geophysical Experience
 - UNAVCO's Research Experiences in Solid Earth Sciences for Students (RESESS) or UNAVCO Student Internship Program (USIP)
 - Incorporated Research Institutions for Seismology (IRIS) internship
 - Southern California Earthquake Center (SCEC) internships SURE or USEIT
 - National Lab (may require US citizenship or ability to obtain a security clearance)
- For-profit industry internships
- Degree in geosciences, physics, math, engineering, or
- environmental science Courses in earth science, math, physics, and computer science
- Research experience Lab, field or instrumentation
 - 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

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- 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



Master's thesis topic related to geophysics

Ph.D./Post-doc

Conferences, campus career fairs,

campus career/job presentations,

Present research at conference

colleagues on research projects

conference, lead undergraduate

field trips, community outreach

ORISE internships, fellowships,

and research opportunities

USGS Mendenhall Program

Host session at professional

Publish research, collaborate with



communities in and out of geosciences Departmental committee, clubs, geoscience professional societies



- Also applicable
- at Ph.D. level
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 - 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



















