

UNDERGRADUATE STUDIES – B.S. IN GEOPHYSICS



Geophysics is the study of:

- **Seismology:** Mackay operates a major regional seismic network and uses the data to examine causes and source physics of earthquakes. Visit the Seismo Lab at www.seismo.unr.edu
- **Earthquake Hazards:** study and model earthquake ground motions from all over the world.
- **Geophysical Exploration:** use seismic, electrical, and other geophysical techniques to locate hidden resources.
- **Remote Sensing:** use satellite data to study resources and global change.
- **Paleomagnetism:** use the changing magnetic field of the earth, frozen in rocks & sediments, to learn how the earth has deformed over thousands to millions of years.
- **Global Positioning System:** study signals from satellites to monitor locations within millimeters & learn how the earth is deforming now.

Career Opportunities:

- Computer Scientist
- Economic Geologist
- Engineering Geologist
- Environmental Geologist
- Explorationist
- Geochronologist
- Geologist
- Geophysicist
- Hydrogeologist
- Hydrologist
- Marine Geologist
- Petroleum Geologist
- Planetary Geologist
- Sedimentologist
- Seismologist
- Soil Scientist
- Structural Geologist
- Volcanologist

Also, preparation for graduate degrees (MS & PhD), as well as medical school and law school.

Scholarships and Financial Aid

Scholarships are available exclusively for students enrolled in the geophysics major. Filing the combined scholarship and financial aid applications at www.finaid.unr.edu will make you eligible for both university-wide and geophysics scholarships. The early deadline for applications is **November 1** and the final deadline, every year, is **February 1** for the following academic year.

High School Preparation

In high school, complete at least:

- one year each of chemistry and physics
- highest mathematics available, i.e. calculus

Many students start with AP credit in some of these or in other areas. Students who complete the program in four years usually have ACT scores of at least 28 (Math) and 21 (English), or comparable SAT scores.



For more information:

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The **Geophysics Program** is affiliated with the Mackay School at the University of Nevada, Reno

- Small class sizes and a low student-to-faculty ratio make learning more personal with easy access to professors and peers.
- Student lounge with year-round advisement services available to Geophysics students.

Internships

There are summer jobs and internships available, and opportunities to work in faculty research labs.

Wes Thelen

Wes, a dual major student in Geophysics and Geology, comes to the university from Truckee, Calif.



He has a cumulative grade-point average of 3.89, earning him a place on the Dean's List every semester. He has also received scholarships specifically related to his majors every semester. Wes is active in the Geosciences Club, the Over the Falls Whitewater Club, and the UNR Ski Team.

Wes says, "My research interests lie in earthquakes and volcanoes, and I've received multiple grants in order to fund my fieldwork. I suggest incoming students in geophysics have a strong interest in math and science as well as a love for the outdoors."

Our Faculty

- John Anderson, Ph.D. — Geophysics, Seismology, Earthquake Hazards
- James Brune, Ph.D. — Experimental Geophysics
- Wendy Calvin, Ph.D. — Planetary Remote Sensing
- Bob Karlin, Ph.D. — Geophysics, Oceanography
- John Louie, Ph.D. — Exploration Seismology
- Gary Oppliger, Ph.D. — Potential Fields and Electric Methods
- Jim Taranik, Ph.D. — Remote Sensing
- Steve Wesnousky, Ph.D. — Neotectonics, Earthquake Hazards

Students interact closely with the faculty — from academic advisement through completion of senior projects and beyond graduation.



U.S. News and World Report consistently ranks the University of Nevada, Reno among "America's Best" small universities.



University of Nevada, Reno

Situated in the foothills on the north side of the Truckee Meadows, the University of Nevada is a land-grant institution and the oldest of the eight institutions in the University and Community College System of Nevada. Approximately 15,000 students are enrolled. The 255-acre main campus features both historic and contemporary architecture.

Information on the area can be obtained from:

www.reno-sparkschamber.org

Mackay School at Nevada:
www.mackay.unr.edu/geology