ABOUT THE MAJOR

As a student in the Geoscience program at the U, you will focus on the composition, structure, and history of the Earth and the processes that govern them. You will learn to apply the principles of chemistry, physics, mathematics, and biology and gain a fundamental understanding of how the Earth works and has evolved through time. The geoscience coursework includes theoretical, fieldwork, and laboratory components that will prepare you to address societal needs and problems such as locating and characterizing mineral, energy, and groundwater resources, assessing seismic and other geologic hazards, and evaluating and remediating environmental contamination. You can tailor your major to suit your interests, passions, and future goals by selecting from three emphasis areas: Geology, Geophysics, or Environmental Geosciences. The Geology emphasis uses Utah's unique structures to focus on geologic materials, Earth systems, and fossils. The Geophysics emphasis focuses on using physical methods to image and understand the Earth. The Environmental Geoscience emphasis focuses on layers of the atmosphere and their interactions. Regardless of emphasis area, the Geoscience major at the U provides both pre-professional training for future scientists and prepares you to make informed choices about pressing societal issues.

LEARNING OUTCOMES

- Understand the nature and origin of the materials that make up the Earth
- Recognize the professional and ethical responsibilities expected of scientists
- Demonstrate skills in reading comprehension of scientific literature, and in oral and written communication of scientific results
- Apply basic principles of math, chemistry, biology and physics to geologic issues
- Understand the dynamic processes that operate within the Earth from its deep interior to the surface
- Demonstrate proficiency in geologic field skills and in solving integrative, field-based problems in Earth science

PLAN & PREPARE

At the U, we plan for our students to have an Exceptional Educational Experience identified by four broad categories we call the Learning Framework: Community, Knowledge & Skills, Transformation, and Impact. This major map will help you envision, explore, design, and plan your personalized Exceptional Educational Experience with the Learning Framework at the core. In addition to assisting you in planning your coursework and navigating the requirements of your major, this map will help you incorporate other kinds of experiences to expand your knowledge, support your development, and prepare you for the future you want.

GET STARTED TODAY

- Schedule an appointment with an advisor advising.utah.edu
- Visit ugs.utah.edu
- Learn more about the Learning Framework ugs.utah.edu/learning-framework

College of MINES + EARTH SCIENCES
THE UNIVERSITY OF UTAH

115 S 1460 E, Room 383
Salt Lake City, UT 84112
earth.utah.edu

GEO

GEOSCIENCE

geophysics emphasis

COLLEGE OF MINES & EARTH SCIENCES

It is hard to express how grateful I am to the academic advisors and professors that helped me pursue my Geophysics degree. With their help I have been able to grow as an individual and explore subjects that I once thought were out of my reach. If I can give one piece of advice, talk with your professors to explore where you can take this degree in the future. Their guidance has been essential in giving me the tools necessary to succeed after I receive my degree.

>> Boe Ericksen
Undergraduate Geophysics Student

THE UNIVERSITY OF UTAH
EXCEPTIONAL EDUCATIONAL EXPERIENCE
THE OFFICE OF UNDERGRADUATE STUDIES

GEOSCIENCE geophysics emphasis

Use this map to explore, envision, design, and plan your Exceptional Educational Experience.

	GETTING STARTED	MAKING PROGRESS		FINISHING UP
COURSES	- Meet with your academic advisor to create a first year course plan - Take GEO 1100 and GEO 2500 in the fall - Take an appropriate math course (check with your advisor)	- Continue with your allied science sequence - Study in the Student Epicenter (FASB 104) - Find professors on earth.utah.edu and set up an appointment to talk about research	- Take GEO 2100 - Take a general education class that feels interesting - Begin taking upper division electives to explore the earth sciences	- Meet with your academic advisor to review your degree audit - Prepare to take Field Methods and Field Geology or Undergraduate Research as your capstone experience - Apply for graduation during your final fall semester
COMMUNITY	- Visit student involvement tables in the fall (find more information in the Student Epicenter - FASB 104) - Check social media and calendar of events	- Apply to be a student ambassador (ask your advisor for details) - Volunteer to help with outreach workshops and building tours (visit the Student Epicenter for details)	- Find a student club or organization at getinvolved.utah.edu - Experience an alternative fall or spring break through benniocenter.org	- Join GeoClub and get involved with the annual Open House, the weekly Distinguished Lectures Series, or sit on the department outreach committee
KNOWLEDGE AND SKILLS	- Meet with a Career Coach at careers.utah.edu - Interview or job shadow with someone in your field of interest	- Attend the STEM Job Fair in the fall to find internships - Find a learning abroad experience learningabroad.utah.edu - Research professional licensure requirements for geological engineering	- Consider taking GEOG 3100 Intro to GIS[1] & Cartography - Join a research team. Connect with your current professors or find research interests on the website	- Share your research with the Office of Undergraduate Research - Present your research at the annual department Open House (email gg-info@lists.utah.edu)
TRANSFORMATION	- Share your research with the Office of Undergraduate Research our.utah.edu - Present your research at the annual department Open House	- Begin research for a senior thesis and work with a professor studying hydrology - Volunteer at the Seismograph Station, contact webmaster@seis.utah.edu	- Explore the Earth's movement in and around Utah at quake.utah.edu - Visit one of Utah's national parks - Listen to the movement of the arches	- Participate in graduation events across campus (look out for advisor emails with details) - Interview a Distinguished Lecture Series presenter
IMPACT	- Join Inclusive Earth (student club information in the Student Epicenter FASB 104) - Attend a MUSE[2] Casual Friday	- Participate in or create your own community service project at the Bennion Center	- Find volunteer opportunities at - Volunteer at the Gardens on campus	- Teach community members about your interests at the annual Open House - Share your research in the department newsletter
CAREER	- Start building your resume with your career coach - Activate and customize your Handshake account to find jobs, internships, and career events	- Create a LinkedIn Account - Research internships through the Hinckley Institute - Start research with a faculty member	- Apply for research funding through UROP[3] - Ask your advisor or professors about Learning Abroad experiences for earth scientists - Attend Career Expos in fall and spring semesters	- Apply for jobs or graduate schools at least 6 months before graduation - Meet with a Career Coach to practice interview conversations

WHERE CAN I GO AFTER GRADUATION?

- Geophysicist
- Engineering Geophysicist
- Exploration Geophysicist
- Geodesist
- Geomagnetician
- Geothermal Specialist
- Laboratory Technician/ Assistant
- Limnologist
- Oceanographer
- Paleomagnetician
- Planetologist
- Professor/ Instructor/ Lecturer
- Seismologist
- Solar-Planetary Relationships Tectonophysicist
- Volcanologist

[1] *Geographic Information Systems* [2] *My U Signature Experience* [3] *Undergraduate Research Opportunities Program*