

# Geosciences

Program Description	Type	Degree
Geology, B.A. ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/ba-geology/">http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/ba-geology/</a> )	Degree	B.A.
Geology, B.S. ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/bs-geology/">http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/bs-geology/</a> )	Degree	B.S.
Geology, B.S., Engineering Geology Concentration ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/bs-geology-engineering-geology-emph/">http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/bs-geology-engineering-geology-emph/</a> )	Degree	B.S.
Geology, Minor ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/minor-geology/">http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/minor-geology/</a> )	Minor	
Geotechnology, Minor ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/minor-geotechnology/">http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/minor-geotechnology/</a> )	Minor	
Earth and Environmental Systems, B.S., Environmental Systems Concentration ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/bs-ees-environmental-systems-track/">http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/bs-ees-environmental-systems-track/</a> )	Degree	B.S.
Earth and Environmental Systems, B.S., Geospatial Systems Concentration ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/bs-ees-geospatial-systems-track/">http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/bs-ees-geospatial-systems-track/</a> )	Degree	B.S.
Earth and Environmental Systems, B.A., Environmental Systems Concentration ( <a href="http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/ba-ees-environmental-systems-track/">http://coursecat.isu.edu/undergraduate/scienceengineering/geosciences/ba-ees-environmental-systems-track/</a> )	Degree	B.A.

## Mission and Vision

**Mission:** We inspire curiosity and prepare graduates to solve Earth's puzzles and society's challenges.

**Vision:** To be the northern Rockies leader for innovative, field-oriented Geosciences.

## Student Learning Outcomes

- Our graduates can apply scientific problem solving skills, including the collection, evaluation, analysis and interpretation of data from field, laboratory or numerical sources.
- Our graduates can communicate scientific topics accurately and intelligibly to professional and informal audiences using written, verbal or visual means.
- Our graduates can work as both self-directed, responsible individuals and as ethical collaborators within diverse teams.
- Our graduates are not only familiar with the materials and processes that define and shape the surface and interior of the Earth but also understand their temporal, regional, and societal context.

- Our graduates are comfortable and proficient with current geospatial technology and tools.
- Our graduates can plan and conduct a successful geoscience field investigation.

## Program Overview

We are a community of professors, support and research staff, and students with a mission to train geoscientists for professional positions or for further study. This includes thinking critically and communicating effectively. Our courses include hands-on experience with field exercises, laboratory experience, and student research. We offer affordable tuition, access to the latest geotechnologies, and a strong record of student placement in government, industry, and education. We also offer a nationally recognized summer field camp (<https://www.isu.edu/geosciences/fieldcamp/>) based at Lost River Field Station, north of Mackay, Idaho.

The Idaho State University Geosciences Department offers Bachelor of Science and Bachelor of Arts degrees in Geology as well as Earth and Environmental Systems. Minors are available in both Geology and Geotechnology. All students in the above degree programs are required to take GEOL 2204 and GEOL 2205, which are the prerequisites for many other courses in the department.

## Bachelor of Science in Geology

The B.S. degree is offered for undergraduates who wish to become professional geoscientists either after their bachelor's degree or after subsequent graduate study. It trains students in the essential observational and analytical skills of field geology as well as more applied areas of earth materials, surface processes, structure, stratigraphy, and geotechnology. The B.S. degree is designed to give the student a broad and comprehensive understanding of the discipline of geology and a firm background in math, physics, and chemistry. Please use the catalog description linked above and our department website (<https://www.isu.edu/geosciences/undergrad/degrees-in-geology/>) for more information.

## Bachelor of Arts in Geology

The B.A. degree is offered for students who wish either a broader-based liberal arts degree or a broader multi-disciplinary science degree than is possible with the B.S. The B.A. degree is especially suited for future earth science teachers, environmental scientists, environmental lawyers, and others who wish to learn more about how the earth works. The degree fulfills major requirements for secondary school earth science teachers. Please use the catalog description linked above and our department website (<https://www.isu.edu/geosciences/undergrad/degrees-in-geology/>) for more information.

## Bachelor of Science or Bachelor of Arts in Earth and Environmental Systems

The purpose of this program is to deliver a multidisciplinary education with environmental geosciences as a foundation, while also drawing upon existing courses from a diverse array of departments and programs. The emphasis in this program spans local to global concerns. Core knowledge is developed through a set of required courses across multiple disciplines, emphasizing the Geosciences, and through required and elective core courses. The student then chooses one of three tracks composed of courses in Geosciences and related disciplines. Please use the catalog description linked above and our

department website (<https://www.isu.edu/geosciences/undergrad/degrees-in-earth--environmental-systems/>) for more information.

- BS Environmental Systems Concentration: Upper division courses emphasizing environmental aspects of Geosciences and Ecology, with supporting courses in Math, Chemistry, and Social Sciences.
- BS Geospatial Systems Concentration: Upper division geotechnologies courses in Geosciences, with supporting courses in Biology, Mathematics, and the Social Sciences.
- BA Environmental Systems Concentration: A geoscience and geotechnology foundation with interdisciplinary coursework in Political Science, History, Economics, Sociology, Global Studies, and Philosophy.

## **Faculty**

**GEOL Courses (<http://coursecat.isu.edu/undergraduate/allcourses/geol/>)**