

# Applied Environmental Geoscience, BS

**Department:** [Geology Department](#)

**College:** [College of Science](#)

## Overview

### About This Degree

The applied environmental geoscience major is an interdisciplinary program, with a broader range of coursework than the traditional degree in geology. Students take geology courses and study the earth's history, composition, and structure, but also take courses in areas such as watershed sciences, soils, biology, statistics, and GIS/remote sensing. This degree is for students interested in studying the geosciences, having a multidisciplinary degree, and going on to careers in environmental fields.

Environmental geoscience is applied in a range of diverse situations, such as urban development, waste disposal, resource management, engineering, soils and agriculture, and assessment of natural and artificial hazards. When students complete the applied environmental geoscience degree, they can fill positions requiring a diverse scientific background and will be able to address problems relating to geological issues, as well as problems that involve surface water, groundwater, and ecological studies.

## Career Options

With a degree in applied environmental geoscience, students can pursue careers in the following areas:

- Energy (oil, gas, coal, geothermal)
- Environmental and building regulation
- Environmental consulting
- Biological firms
- Natural hazards assessment (earthquakes, landslide, etc.)

[Career Services](#) provides counseling and information on hundreds of job and internship opportunities and even helps students apply and interview.

## What it takes

### Admissions Requirements

In addition to Utah State University's [admissions requirements](#), the applied environmental geoscience program has additional requirements:

- **Freshmen:** New freshmen admitted to USU in good standing qualify for admission to this major.
- **Transfer students:** Transfer students from other institutions need a 2.2 total GPA for admission to this major. Students transferring from other USU majors need a total GPA of 2.0 for admission to this major.

International students have [additional admissions requirements](#).

### Major Requirements

[Click here](#) to see course requirements for the **Bachelor of Science**.

## Contact

### Advising

All new USU students participate in a [New Student Orientation](#) program, where they receive detailed information about major requirements, registering for classes, and other important advising information.

**Thomas Lachmar**  
Associate Professor  
**Office:** GEOL 210  
**Phone:** (435) 797-1247  
**Email:** [tom.lachmar@usu.edu](mailto:tom.lachmar@usu.edu)

## Get Involved

### Professional Organizations, Honor Societies, and Clubs

**American Geophysical Union:** The American Geophysical Union is dedicated to furthering the geophysical sciences through the individual efforts of its members and in cooperation with other national and international scientific organizations.

**Geological Society of America:** Established in 1888, the Geological Society of America provides access to elements that are essential to the professional growth of earth scientists at all levels of expertise and from all sectors: academic, government, business, and industry.

**Geology Club:** The Geology Club holds regular meetings and activities, including field trips with professors and students, museum tours, geology displays for public school students, and more.

### Labs, Centers, Research

With the second oldest [undergraduate research](#) program in the nation, USU offers students a wide range of opportunities to gain hands-on research experience. The [Undergraduate Research and Creative Opportunities](#) program allows students to apply for grants and receive funding. USU's [Honors Program](#) prepares students for excellent graduate programs by helping them build relationships with professors, participate in research projects, take smaller, more intensive classes, and develop leadership skills.

**Ecology Center:** The Ecology Center is an administrative structure in the university that supports and coordinates ecological research and graduate education in the science of ecology and provides professional information and advice for decision makers considering actions that affect the environment. The Ecology Center at USU has had a string of directors known nationally and worldwide as premier scientists in the field of ecology, and students graduating with a degree in ecology are able to make important contacts with influential faculty that can help them go on to prestigious post-doctoral programs and faculty positions at universities around the world.

**Institute for Natural Systems Engineering:** The INSE is a recognized leader in the development, testing, and application of multi-disciplinary assessment methods for aquatic ecosystems and instream flow assessment methodologies.

**Utah Center for Water Resources Research:** The UCWRR facilitates water research, outreach, design, and testing elements within a university environment that supports student education and citizen training.

**Utah Water Research Laboratory:** The UWRL works on nearly 250 water-related projects a year and has projects in all of Utah's 29 counties and more than 40 countries. The lab is one of the go-to places that addresses the technical and societal aspects of water-related issues, including quality, quantity, and distribution of water.

**Water Initiative:** Utah State University supports a broad community of students and faculty engaged in water education, research, and outreach. The USU Water Initiative provides an overarching umbrella for the activities of this community aimed at fostering interdisciplinary collaboration and collegial sharing of ideas related to water across the departments and colleges of USU.