



GEOLOGY

UW-EAU CLAIRE UNDERGRADUATE FACT SHEET

Geology is the scientific study of the components, internal structure, processes and evolutionary history of the earth and other planetary bodies. Knowledge of geology is applied through developing natural resources, evaluating engineering structures and foundations, and determining the effects of human activity and natural hazards on environmental quality.

WHY STUDY GEOLOGY

Prepare for graduate programs in the geological and other environmental sciences or for a career as a professional geologist, hydrogeologist, engineer or an earth science teacher.

THE EAU CLAIRE ADVANTAGE

- Each year 25 percent of the students in the program are involved in collaborative research experiences, including projects in Wisconsin and around the world. Students routinely travel to study geology in places such as Europe, South/Central America and even the Antarctic.
- Courses emphasize field experience and practical application of geologic principles. Field courses make use of computer and GIS technology. Field courses for geology majors are offered at field stations established in both New Mexico and Montana.
- The department has a dual degree program with the University of Minnesota in geology and engineering and in five years a student can graduate with a degree in both geology and an engineering discipline.
- Undergraduate students have access to state-of-the-art laboratory instruments including electron

microscopes, mass spectrometers, micro-FTIR, X-ray diffractometers, X-ray fluorescence spectrometers and high P-T laboratories, allowing students to examine many different types of geological materials.

- The department has an on-campus hydrogeology laboratory complete with monitoring wells.
- The department has scholarship funds available to help students pay for college costs.
- Students have access to modern computer laboratories with geology-specific software.
- The department has eight faculty members whose specialties include structural geology, geophysics, tectonics, geochemistry, mineralogy, environmental geology, hydrogeology, geological engineering, geomorphology,

sedimentology and stratigraphy, and glacial geology.

- The department of geology, the affiliated Geology Club and geology honors society organize field trips throughout Wisconsin and the United States and participate in an annual Earth Day exhibit held in Eau Claire.

CAREER OPTIONS

Four major career paths are available in geology:

- **Industry and consulting:** Most geologists are employed by oil and mining companies or engineering and consulting firms. They explore for oil and mineral resources, evaluate foundations for engineering structures, determine groundwater availability and quality, investigate environmental hazards caused by human activities and natural processes, and analyze soil properties and slope stability. Employment in industry often requires a master's degree. Recent employment opportunities have grown substantially in the fields of groundwater hydrology, engineering geology, exploration geophysics and geochemistry.
- **Government:** Many geologists work at government agencies such as the U.S. Geological Survey, the Department of Natural Resources, geological surveys of individual states, and various research laboratories and museums in the country. Many geology graduates employed by government agencies are engaged in geological field mapping, analyzing geological materials, regulating environmental quality and preparing rock specimens and fossils. Prerequisite training and experience depend on the position and the nature of the job.

UW-EAU CLAIRE FACTS AT A GLANCE

- Location: Eau Claire, Wis.; city pop. 64,000, metro. pop. 151,000
- Average enrollment: 10,500
- Undergraduates: 10,063
- Graduate students: 503
- International students: 124
- Multicultural students: 485
- Average men-women ratio: 2-to-3
- Students who spend at least a semester studying abroad: 24%
- Students doing undergraduate research with faculty/staff: 710+
- ACT composite average: 24+
- Average high school rank: 77%
- Average class size: 28
- Faculty-student ratio: 1-to-20
- Computers-student ratio: 1-to-9
- Student organizations: 224
- Walk across campus: About 10 minutes
- Nickname: Blugolds
- Colors: Navy and old gold

- **Research:** Teaching and research positions generally require a doctorate degree in the related field. Professors or research geologists choose their specialty and their research project; research funding is normally obtained from universities, professional organizations and government agencies.
- **Teaching:** Through the College of Education and Human Sciences, geology graduates can qualify to teach earth science and related science subjects to junior high and high school students. With an advanced graduate degree there is always the option of teaching at the college level.

UNDERGRADUATE PROGRAMS

The UW-Eau Claire department of geology offers:

Major

- Geology

Minor

- Geology

Areas of concentration:

Students may choose to specialize in general geology, hydrogeology and water chemistry, environmental science, geological engineering, marine geology or earth and space science.

HIGH SCHOOL PREPARATION

- Familiarity with computer applications (i.e. word processing, spreadsheets, drawing) and the ability to write clearly are beneficial for those who plan to major in geology. All students who enroll at UW-Eau Claire are required to have a minimum of 17 college preparatory units including:
 - 4 years of English (at least 3 composition and literature)
 - 2 years of a single foreign language

- 3 years of math (algebra, geometry, 1 advanced college preparatory math)
- 3 years of natural science
- 3 years of social science (1 must be world or American history)
- 2 additional units in the areas already mentioned or other academic areas

FRESHMAN COURSE WORK

Sample First Year

FALL SEMESTER

COURSE#	TITLE	CREDITS
Geol 110*	Physical Geology	
or		
Geol 115*	Environmental Geology	4
Math 114*	Calculus I	
or		
Math 215*	Calculus II	4
Engl 110	Introduction to College Writing	5
	General education elective	3

SPRING SEMESTER

COURSE#	TITLE	CREDITS
Chem 115*	Chemical Principles	5
	Geology elective	3
	General education elective	7

*critical for first year

FOR MORE INFORMATION

For more information about UW-Eau Claire's programs in geology, contact:

GEOLOGY

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 UW-Eau Claire
 Eau Claire, WI 54702-4004
 715-836-732
www.uwec.edu/geology

For more information about campus including costs, housing, admission requirements and tours:

ADMISSIONS

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Experience the Eau Claire Advantage.