

PROFESSIONAL GEOLOGY CERTIFICATE, UNDERGRADUATE

In this certificate, students obtain a strong introduction to geology and learn about the Earth, its internal structure and minerals, rocks and volcanoes, earthquakes, mountains, continental drift, and more. Studies include historical geology and earth materials.

Grade Requirement: ≥ 2.5 cumulative average, $\geq C$ in required and elective courses.

The Geology Certificate is designed for students already pursuing a BS in Geosciences that are interested in a geology-focused degree and/or in becoming a licensed geologist.

Note that MATH 142 and CHEM 171 & CHEM 171L are required prerequisites for a number of courses in the Geology Certificate curriculum.

Required Courses

GEOS 100 & 100L	DISCOVERING GEOLOGY and DISCOVERING GEOLOGY LAB	5
GEOS 222 & 222L	THE EARTH THROUGH TIME and THE EARTH THROUGH TIME LAB	5
GEOS 311 & 311L	EARTH MATERIALS and EARTH MATERIALS LAB	4
GEOS 313 & 313L	IGNEOUS AND METAMORPHIC PETROLOGY and IGNEOUS AND METAMORPHIC PETROLOGY LAB	4
GEOS 411 & 411L	SEDIMENTOLOGY AND STRATIGRAPHY and SEDIMENTOLOGY AND STRATIGRAPHY LAB	4
GEOS 430 & 430L	STRUCTURAL GEOLOGY and STRUCTURAL GEOLOGY LAB	4
GEOS 431 & 431L	FIELD METHODS AND REGIONAL GEOLOGY and FIELD METHODS AND REGIONAL GEOLOGY LAB	4

Electives-choose at least three from the following 12

GEOS 408 & 408L	INVERTEBRATE PALEONTOLOGY and INVERTEBRATE PALEONTOLOGY LAB	
GEOS 412 & 412L	ADVANCED & APPLIED OPTICAL MINERALOGY and ADVANCED & APPLIED OPTICAL MINERALOGY LAB	
GEOS 462 & 462L	PRINCIPLES OF GEOCHEMISTRY and PRINCIPLES OF GEOCHEMISTRY LAB	
GEOS 470 & 470L	GROUNDWATER HYDROLOGY and GROUNDWATER HYDROLOGY LAB	
GEOS 475 & 475L	ENGINEERING GEOLOGY OF SOILS: INTRODUCTION TO GEOTECHNICAL ENGINEERING and ENGINEERING GEOLOGY OF SOILS: INTRODUCTION TO GEOTECHNICAL ENGINEERING LAB	

Total Credits 42

Students who earn a Professional Geology Certificate from EWU should be able to:

- apply geological principles that operate in the complex systems of the Earth;
- demonstrate effective scientific communication skills necessary in order to be successful in the field of geology;
- demonstrate the proper use of the tools and equipment available to geologists to solve geological problems;
- describe geological processes that operate in the complex systems of the Earth.