

MINOR IN GEOLOGY

The Minor in Geology requires a minimum of 21 hours of which at least 12 credit hours must be unique to that minor. Students in this minor have a foundation in geology, particularly in near surface geology at the intersection of geology and the environment. Students electing to minor in geology must complete the following:

REQUIRED COURSES

Code	Title	Hours
EEES 1020	Introductory Geology Laboratory	1
EEES 2100	Fundamentals Of Geology	4

AT LEAST TWO COURSES FROM THE FOLLOWING FOUR

Code	Title	Hours
EEES 2230	Earth History: Historical Geology and Paleontology	4
EEES 3210	Mineralogy and Petrology	4
EEES 3220	Sedimentary Petrology and Stratigraphy	3
EEES 3310	Field Methods: Structural Geology and Mapping	3

CHOOSE AT LEAST 8–10 UNIQUE CREDITS FROM THIS LIST OF COURSES to make up a minimum of 21 credit hours. *Only one of EEES4480 or EEES4490 can be used to fulfill these credits.

Code	Title	Hours
EEES 2230	Earth History: Historical Geology and Paleontology	4
EEES 2400	Oceanography And Water Resources	3
EEES 3000	Geology Of National Parks	3
EEES 3100	Surficial Processes	3
EEES 3210	Mineralogy and Petrology	4
EEES 3220	Sedimentary Petrology and Stratigraphy	3
EEES 3250	Engineering Geology	3
EEES 3310	Field Methods: Structural Geology and Mapping	3
EEES 4100	Glacial Geology	3
EEES 4150	Evolution	3
EEES 4200	Quaternary Geology	3
EEES 4220	Environmental Geochemistry	3
EEES 4410	Hydrogeology	3
EEES 4450	Hazardous Waste Management	3
EEES 4480	GIS Applications in Environmental Science	3
EEES 4490	Remote Sensing of The Environment	4
EEES 4920	Senior Geology Seminar	2

The departmental undergraduate geology advisor (Dr. Becker) must approve a program of study in advance, and a minimum GPA of 2.0 must be achieved for the course work completed in the minor.

Below is a sample plan of study. Consult your degree audit for your program requirements.

First Year		
First Term		Hours
EEES 1020	Introductory Geology Laboratory	1
EEES 2100	Fundamentals Of Geology ^{EEES 1010 can substitute with permission of advisor.}	4
Hours		5
Second Term		
EEES 2230 or EEES 3220	Earth History: Historical Geology and Paleontology or Sedimentary Petrology and Stratigraphy	3 - 4
Hours		3-4
Second Year		
Third Term		Hours
EEES 3210 or EEES 3310	Mineralogy and Petrology or Field Methods: Structural Geology and Mapping	3 - 4
EEES Elective		3
Hours		6-7
Fourth Term		Hours
EEES Electives		6 - 8
Hours		6-8
Total Hours		20-24

Students will be able to identify and classify Earth materials, including minerals, rocks and common fossils.

Students will be able to apply the common tools necessary for a field investigation in geology.

Students will be able to explain the two fundamental paradigms in geology: plate tectonics and evolution.

Students will be able to apply the concepts of plate tectonics to the analysis of other geologic processes, such as the distribution of earthquakes, creation of landforms, and sedimentary depositional environments.

Students will be able to explain and discuss the basic principles concerning the origin and distribution of minerals (mineralogy) and rocks (petrology).

Students will be able to evaluate the record of rock behavior under stress (structural geology) within the lithosphere.

Students will be able to analyze field maps or other images to interpret the processes and interactions among the primary Earth systems that produce features on the Earth surface.

Students will be able to evaluate environmental issues in the context of geological principles, and to design practical potential solutions.