Geology

Geology is the study of processes affecting the earth — geological, hydrological, and chemical.

Geology majors study past and present-day interrelationships between earth components and earth processes: rocks, minerals, fossils, landforms, structural features, earthquakes, glaciers, magmas, volcanoes, atmospheric gases, surface water, subsurface water, and environmental pollutants. Required coursework in geology is integrated with required or recommended coursework in forestry, soils, hydrology, chemistry, physics, and mathematics.

Requirements for the Major in Geology

The major requires successful completion of the following:

Code	Title	Semester Hours
Course Requirements [1]		
GEOL 121	Physical Geology (Lab)	4
GEOL 221	Mineralogy (Lab)	4
GEOL 230	Paleoecology	4
GEOL 325	Field and Structural Geology (Lab)	4
GEOL 332	Oral Presentations	2
Select five additional courses in Geology (GEOL) numbered 200 or above [1, 2]		20
Select three of the following courses: [3]		12
BIOL 203	Comparative Vertebrate Anatomy (Lab)	
BIOL 206	Plant Ecology (Lab)	
BIOL 210	Ecology (Lab)	
BIOL 213	Evolutionary Biology	
CHEM 120	General Chemistry (Lab)	
CHEM 150	Advanced General Chemistry (Lab)	
CHEM 201	Organic Chemistry I (Lab)	
CHEM 210	Solution and Solid State Chemistry (Lab)	
CSCI 157	Introduction to Modeling and Programming	
ENST 217	Fundamentals of GIS	
ENST 317	Advanced Applications of GIS	
MATH 101	Calculus I	
MATH 102	Calculus II	
MATH 207	Multidimensional Calculus	
MATH 210	Linear Algebra	
MATH 212	Differential Equations	
PHYS 101	General Physics I (Lab)	
PHYS 102	General Physics II (Lab)	
PHYS 103	Modern Mechanics (Lab)	
PHYS 104	Electric and Magnetic Interactions (Lab)	
PHYS 202	Thermodynamics	
PHYS 250	Solar System Astronomy (Lab)	
STAT 204	Elementary Statistics	
Total Semester Hours		**50**

Code	Title	Semester Hours
Additional Requirements		
A comprehensive examination		
A designated writing-intensive course in the major		
Department capstone requirement, which may be satisfied by:		

a. Completing independent study project that culminates in a technical paper or a presentation at Scholarship Sewanee which as been approved by the department chair as fulfilling this requirement; or,

b. Completing a summer research experience, such as an NSF REU or Sewanee SURF which as been approved by the department chair as fulfilling this requirement; or,

c. Completing ESCI 450 during the spring semester of their senior year.

1

Must include at least one writing intensive geology course.

2

A field camp or research experience that has been pre-approved by your major advisor may substitute for up to four credits.

3

Students interested in attending graduate school are encouraged to take additional foundational math and sciences courses.