

# Geology- Bachelor of Science

For information, contact the Department of Geology & Environmental Earth Science, 118D Shideler Hall , 513-529-3216.

Geology is the study of the history of the Earth and processes that continue to shape the planet today. Geoscientists view the Earth as a set of intimately connected atmospheric, hydrologic, and rock systems. The Geology B.S. degree requires a core of geology and cognate or interdisciplinary geology classes, culminating in a capstone field mapping experience. Students may earn departmental honors by conducting independent research leading to public presentation of their results. This degree prepares students for employment in a wide range of industry, government and NGO positions, or for pursuit of a graduate degree in the geological sciences.

## Teacher Licensure

Students who wish to combine teacher licensure with an Arts and Science major must observe the rules, procedures, and restrictions pertaining to admission to a licensure cohort as outlined in the College of Education, Health and Society chapter. For information, contact the Office of Student Services in the College of Education, Health and Society, 202 McGuffey Hall, 513-529-6418.

## Program Requirements: Bachelor of Science

(68 semester hours minimum including related courses)

Code	Title	Credit Hours
<b>Strongly recommended for first year students</b>		
GLG 147	Introductory Seminar - Geology & Environmental Earth Science	
<b>Core Requirements</b>		
Select one of the following:		3
GLG 111	The Dynamic Earth	
GLG 121	Environmental Geology	
GLG 141	Geology Of U.S. National Parks	
Select all of the following:		
GLG 115L	Understanding the Earth	1
GLG 204	Survival on an Evolving Planet	4
GLG 301	Sedimentology and Stratigraphy	4
GLG 322	Structural Geology	4
GLG 356	Mineralogy	4
GLG 357	Igneous/Metamorphic Petrology	4
GLG 411A	Field Geology	6
Select one of the following (Geophysics):		3
GLG 461	Geophysics	
GLG 467	Seismology	
Select one of the following (Geobiology):		3
GLG 402	Geomicrobiology	
GLG 437	Paleontology in Conservation	
Select one of the following (Geochemistry):		3
GLG 427	Isotope Geochemistry	

GLG 432	X-ray Powder Diffraction and Clay Analysis	
Select one of the following (Tectonics):		3-4
GLG 450	Sedimentary Basin Analysis	
GLG 492	Global Tectonics	
Select one of the following (Surficial Processes):		4
GLG 354	Geomorphology	
GLG 408	Introduction to Hydrogeology	
<b>Electives</b>		
Select at least 12 semester hours (no more than one at 300 level) of the following:		12
GLG 335	Ice Age Earth	
GLG 342	Geoarchaeology	
GLG 354	Geomorphology	
GLG 402	Geomicrobiology	
GLG 408	Introduction to Hydrogeology	
GLG 417	Forensic Isotope Geochemistry	
GLG 427	Isotope Geochemistry	
GLG 428	Hydrogeological Modeling: Groundwater Flow and Contaminant Transport and Fate	
GLG 432	X-ray Powder Diffraction and Clay Analysis	
GLG 435	Soils and Paleosols	
GLG 436	Paleoclimatology	
GLG 437	Paleontology in Conservation	
GLG 447	Volcanology	
GLG 450	Sedimentary Basin Analysis	
GLG 461	Geophysics	
GLG 467	Seismology	
GLG 492	Global Tectonics	
GLG 496	Isotopes in Environmental Processes	
GLG 498	Senior Thesis In Geology <sup>1</sup>	
<b>Related Hours (10 credit hours minimum)</b>		
Select from the following (Chemistry):		4-5
GLG 211	Chemistry of Earth Systems	
or		
CHM 141	College Chemistry	
or CHM 141R College Chemistry		
and		
CHM 144	College Chemistry Laboratory	
Select one of the following (Physics):		3-5
GLG 261	Geohazards and the Solid Earth	
PHY 161	Physics for the Life Sciences with Laboratory I	
PHY 181 & PHY 183	General Physics I and General Physics Laboratory I	
Select one of the following (Math/Stats):		3-5
STA 261	Statistics	
STA 301	Applied Statistics	
MTH 151	Calculus I	
<b>Total Credit Hours</b>		<b>68-74</b>

<sup>1</sup> Departmental honors requires 3 credit hours of GLG 498 *and* public presentation of research project.