

Bachelor of Science in Environmental Geoscience

The B.S. in Environmental Geoscience, administered by the College of Engineering and Mines, combines a broad foundation in geology with a thorough background in related sciences and mathematics. This degree provides the graduate with more applied and interdisciplinary science skills than the Geology B.S. or B.A. Although not an engineering degree, graduates with a B.S. in Environmental Geoscience are qualified to work in various environmental fields, including field monitoring, remediation of contaminated sites, evaluation of natural hazards, site selection, waste disposal, and water resources. Continuing at the graduate level at UND or other institutions is another option, with opportunities to branch into fields such as geography, ecology, hydrology, and environmental policy. The program includes electives in biology, chemistry, geological engineering, law, and Earth system science. Completion of a summer geology field course, although strongly recommended, is not required for graduation.

Required 120 credits, including:

I. Essential Studies Requirements (see University ES listing).

II. The following Core Curriculum:

Code	Title	Credits
54 major hours including:		
GEOL 101 & 101L	Introduction to Geology and Introduction to Geology Laboratory	4
or GEOE 203 & 203L	Earth Dynamics and Earth Dynamics Laboratory	
GEOL 103	Introduction to Environmental Issues	3
GEOL 106	Global Warming: The Facts and Myths	3
GEOL 220	Computer Applications in Geology and Environmental Science	2
GEOL 256	Critical Thinking in the Geosciences	2
GEOL 311	Geomorphology	4
GEOL 318	Mineralogy	3
or GEOE 301	Petrophysics	
GEOL 321	Geochemistry	3
GEOL 322	Geology, Society, and the Environment	3
GEOL 342	Conservation and Environmental Hydrology	3
GEOL 356	Geoscience Lectures	1
GEOL 411	Sedimentology and Stratigraphy	5
GEOL 414	Applied Geophysics	3
GEOE 417	Hydrogeology	3
GEOE 419	Groundwater Monitoring and Remediation	3
GEOL 420	Geology Capstone	3
GEOL 421	Seminar I	1
GEOL 422	Seminar II	1
GEOL 487	Research I	1
GEOL 488	Research II	2
GEOL 494	Senior Thesis	1
30-31 hours required in other departments:		
BIOL 150 & 150L	General Biology I and General Biology I Laboratory	4
BIOL 151 & 151L	General Biology II and General Biology II Laboratory	4
GEOG 474 & 474L	Introduction to Geographic Information Systems (GIS) and GIS Laboratory	3
CHEM 121 & 121L	General Chemistry I and General Chemistry I Laboratory	4

CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	4
MATH 165	Calculus I	4
PHYS 211	College Physics I	4
or PHYS 251	University Physics I	
Statistics (PSYC 241, BIOL 470, ECON 210, or MATH 321)		
Program Electives		
Select at least 6-9 credits from the following list:		14
BIOL 332 & 332L	General Ecology and Gen Ecology Lab	
BIOL 431	Wildlife Management	
BIOL 433	Aquatic Ecology	
CHEM 333	Analytical Chemistry	
GEOE 323	Engineering Geology	
GEOE 421	Cold Region Hydrologic Modeling	
GEOG 334	Climatology	
PHIL 253	Environmental Ethics	
Other Approved Electives		6
Total Credits		120