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# Geology Major

## General Geology: Hydrogeology-Engineering Emphasis– BS

### General Education Requirements

- Communications Literacy (CL1 and CL2) 6 credits
- Quantitative Literacy (QL) 3-4 credits
- Quantitative Intensive (QI) 1 course
- Breadth American Institutions (BAI) 3 credits
- Breadth Creative Arts (BCA) 3 credits
- Breadth Humanities (BHU) 3 credits
- Breadth Physical Sciences (BPS) 3 credits
- Breadth Life Sciences (BLS) 3 credits
- Breadth Social Sciences (BSS) 3 credits
- Depth Courses (DHA/DSC/DSS) 4 credits **outside** major [at least 2 courses]

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### Geology Requirements

<u>Course</u>	<u>Credits</u>	<u>Title</u>
GEO 1110	3	Physical Geology (BPS)
GEO 1115	1	Physical Geology Laboratory
GEO 3200	4	Earth Through Time (DSC)
GEO 3500	4	Minerals and Rocks
GEO 3550	4	Sedimentation and Stratigraphy
GEO 3600	4	Geomorphology
GEO 3700	4	Structural Geology
GEO 4700	3	Geologic Field Methods (CI)
GEO 5200	5	Geology Field Camp
GEO 5510	3	Groundwater Geology (QI)
GEO 5520	3	Techniques of Groundwater Investigations
<b>OR</b>		
GEO 5600	3	Geochemistry
PHYS 2210	4	Physics for Scientists and Engineers I
PHYS 2215	1	Physics for Scientists and Engineers Lab I
PHYS 2220	4	Physics for Scientists and Engineers II
PHYS 2225	1	Physics for Scientists and Engineers Lab II
CHEM 1210	4	Principles of Chemistry I
CHEM 1215	1	Principles of Chemistry Lab I
CHEM 1220	4	Principles of Chemistry II
CHEM 1225	1	Principles of Chemistry Lab II
ENGR 2010	3	Engineering Mechanics Statics
ENGR 2030	3	Engineering Mechanics Dynamics
ENGR 2140	3	Strength of Materials

CEE 3430	3	Engineering Hydrology
<b>OR</b>		
CEE 4300	4	Engineering Soil Mechanics
CEE 3500	3	Civil and Environmental Engineering Fluid Mechanics
MATH 1210	4	Calculus I (QL)
MATH 1220	4	Calculus II (QL)
MATH 2210	3	Multivariable Calculus (QI)
MATH 2250	4	Linear Algebra and Differential Equations (QI)

*Students must additionally complete 12 credits from any geology courses numbered 4800 or above (except GEO 5200), including 1 of the following*

GEO 5620	3	Global Geophysics (QI)
<b>OR</b>		
GEO 5640	3	Introduction to Seismology
<b>OR</b>		
GEO 5660	4	Applied Geophysics
<b>OR</b>		
GEO 5690	3	Geodynamics