

Geological Sciences Major, B.S.

Department of Geological Sciences

The B.S. degree in Geological Sciences is designed for students interested in careers in the geosciences. The study of geology requires a broad base of knowledge in related sciences (chemistry and physics) and mathematics. In addition, the program includes a solid core of geology courses, including a course in field mapping.

Typical Program of Study:

Fall Semester

First Year

Geol 1110 Introductory Geology	4 cr
Chem 1151 General Chemistry I or Chem 1161 Honors Chemistry I	5 cr
Math 1290 Calculus for the Natural Sciences ^a or Math 1296 Calculus I ^a	<u>5 cr</u> 14 cr

Second Year

Phys 2011 General Physics I	4 cr
Geol 2120 Earth's Dynamic Interior	3 cr
Geol 2311 Mineralogy	4 cr
Liberal education or minor field course	<u>3 cr</u> 14 cr

Third Year

Geol 3420 Sedimentology and Stratigraphy	4 cr
Geology upper division elective ^b	3 cr
Comp 3150 Advanced Writing: Science	3 cr
Liberal education or minor field courses	<u>4 cr</u> 14 cr

Summer

Geol 4500 Field Geology	6 cr
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Fourth Year

Geology upper division electives ^b	6 cr
Liberal education or minor field courses	<u>8-9 cr</u> 14-15 cr

Spring Semester

Comp 1120 College Writing	3 cr
Chem 1152 General Chemistry II or Chem 1162 Honors Chemistry II	5 cr
Math 1297 Calculus II	5 cr
Geol 2110 Earth History	<u>4 cr</u> 17 cr

Phys 2012 General Physics II	4 cr
Geol 2312 Petrology	4 cr
Liberal education or minor field courses	<u>6 cr</u> 14 cr

Geol 4450 Structural Geology	4 cr
Geology upper division elective ^b	3 cr
Liberal education or minor field courses	<u>8 cr</u> 15 cr

Geology upper division elective ^b	3 cr
Liberal education or minor field courses	<u>9 cr</u> 12 cr

^a First math course is determined by math placement exam. This schedule presupposes placement into Math 1290 or 1296.

^b Fifteen credits of 3xxx level or above Geology electives are required. With the exception of Geol 4110 Advanced Earth Science for Teachers, electives (3xxx and above) are selected from yearly geological sciences offerings. Six credits of limnology classes may be substituted for geological sciences classes. Geog 4563 and 4564 (5 credit total) may be substituted for 3 credits of geological sciences electives.

For further information:

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MAJOR REQUIREMENTS	CREDITS	PREREQUISITES	SEMESTER TO BE COMPLETED	GRADE
YEAR 1				
Comp 1120 College Writing	3			
Chem 1151 General Chemistry I and Chem 1152 General Chemistry II OR Chem 1161 Honors General Chemistry I and Chem 1162 Honors General Chemistry II	5 5 5 5	1 yr HS chemistry and HS algebra Chem 1151 1 yr HS chemistry and HS algebra; placement Chem 1161		
Geol 1110 Introductory Geology Geol 2110 Earth History	4 4	Geol 1110 or 1130 or 2610 or Ast 1040		
Math 1290 Calculus for the Natural Sciences OR Math 1296 Calculus I AND Math 1297 Calculus II	5 5 5	Math placement or Math 1250 with grade of 'C-' or better Math placement or Math 1250 with grade of 'C-' or better Math 1290 or Math 1296 with grade of 'C-' or better		
YEAR 2				
Geol 2120 Earth's Dynamic Interior Geol 2311 Mineralogy Geol 2312 Petrology	3 4 4	Geol 1110 or 2110 Geol 1110, 1 semester college chemistry Geol 2311		
Phys 2011 General Physics I Phys 2012 General Physics II	4 4	Math 1290 or 1296 Phys 2011; Math 1297		
YEAR 3				
Comp 3150 Advanced Writing: Science Geol 3420 Sedimentology & Stratigraphy Geol 4450 Structural Geology Geology upper division electives*	4 4 4 6	Comp 1120; 60 credits Geol 2312 Geol 3420		
YEAR 4				
Geology upper division electives*	9			
SUMMER SESSION (AFTER YEARS 3 OR 4)				
Geol 4500 Field Geology	6	Geol 4450; Geology department approval		

* Fifteen credits of 3xxx level or above Geology electives are required. With the exception of Geol 4110 Advanced Earth Science for Teachers, electives (3xxx and above) are selected from yearly geological sciences offerings. Six credits of limnology classes may be substituted for geological sciences classes. Geog 4563 and 4564 (5 credit total) may be substituted for 3 credits of geological sciences electives.

NOTE: In addition to the above requirements, students must complete a minor and the liberal education program to earn a B.S. degree