GEOLOGY (GEOLOGICAL SCIENCES) - BACHELOR OF SCIENCE

A Suggested Plan of Study for Students

This roadmap assumes student placement in MATH 1250G Trigonometry & Pre-Calculus and ENGL 1110G Composition I. The contents and order of this roadmap may vary depending on initial student placement in mathematics and English. It is only a suggested plan of study for students and is not intended as a contract. Course availability may vary from fall to spring semester and may be subject to modification or change.

First Year		
Semester 1		**Credits**
Area I: Communications - Level 1 Course		4
ENGL 1110G	Composition I (Recommended) [1]	
Area II: Mathematics Course [1]		3-4
MATH 1250G	Trigonometry & Pre-Calculus (Recommended) [2]	
GEOL 1110G or HNRS 2116G	Physical Geology or Earth, Time and Life	4
Area IV: Social and Behavioral Science Course [1]		3
	Credits	**14-15**
Semester 2		
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors [2]	4
MATH 1430G or MATH 1511G	Applications of Calculus I [2] or Calculus and Analytic Geometry I	3-4
Area I: Communications - Oral Communication Course		3
COMM 1115G	Introduction to Communication (Recommended)	
Area VI: Creative and Fine Arts Course [1]		3
Elective Course [3]		1
	Credits	**14-15**
Second Year		
Semester 1		
GEOL 1150	Introduction to Rocks and Minerals	3
GEOL 305V	Fossils and the Evolution of Life	3
CHEM 1225G	General Chemistry II Lecture and Laboratory for STEM Majors [2]	4
MATH 1440 or MATH 1521G	Applications of Calculus II [2] or Calculus and Analytic Geometry II	3-4
Area I: Communications - Level 2 Course		3
ENGL 2210G	Professional and Technical Communication (Recommended) [1]	
	Credits	**16-17**
Semester 2		
GEOL 312	Mineralogy and Optics (Spring Only) [2]	3
GEOL 420	Stratigraphy and Sedimentology	3
Choose one from the following:		3-4
GEOG 381	Cartography and GIS (Recommended to meet the 3-4 credit non-departmental requirement)	
CSCI 1210	Computer Programming Fundamentals	
CSCI 1210	Computer Programming Fundamentals	
CSCI 1220	Computer Programming Fundamentals: Python	
CSCI 1235	R Programming I	
C E 151	Introduction to Civil Engineering	
MATH 1350G	Introduction to Statistics	
MATH 2350G	Statistical Methods	
Area V: Humanities Course [1]		3
Elective Course [3]		2
	Credits	**14-15**
Third Year		
Semester 1		
GEOL 470	Structural Geology [2]	3
GEOL 360	General Geochemistry	3
Choose one sequence from the following:		4
PHYS 1230G & PHYS 1230L	Algebra-Based Physics I and Algebra-Based Physics I Lab [2]	
PHYS 1310G & PHYS 1310L	Calculus -Based Physics I and Calculus -Based Physics I Lab [2]	
Geology Upper-Division Elective Course (refer to degree requirements list)		3
Elective course		2
	Credits	**15**
Semester 2		
GEOL 399	Igneous and Metamorphic Petrology	3
Choose one sequence from the following:		4
PHYS 1240G & PHYS 1240L	Algebra-Based Physics II and Algebra-Based Physics II Lab [2]	
PHYS 1320G & PHYS 1320L	Calculus -Based Physics II and Calculus -Based Physics II Lab [2]	
Geology Upper-Division Elective Course (refer to degree requirements list)		3
VWW: Viewing a Wider World Course [4]		3
Elective course		2
	Credits	**15**
Fourth Year		
Summer		
GEOL 495	Geology Field Camp [5]	4
	Credits	**4**
Semester 1		
VWW: Viewing a Wider World Course [4]		3
Geology Upper-Division Elective Course (refer to degree requirements list)		3
Geology Upper-Division Elective Course (refer to degree requirements list)		3
Elective Course		2
First Course in Second Language Series		4
	Credits	**15**
Semester 2		
GEOL 490	Field Geology [1,5]	3
GEOL 491	Tectonic Evolution of North America [1]	3
GEOL 449	The Geological Profession [1]	1
Second Course in Second Language Series		4
Elective course [3]		2
	Credits	**13**
	Total Credits	**120-124**

[1] See the General Education (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/) section of the catalog for a full list of courses.

[2] These courses may have prerequisites and/or co-requisites, and it is the students responsibility for checking and fulfilling all those requirements.

[3] Students whose Financial Aid requires enrollment in at least 15 credits each semester, may need to take additional elective credit than what is listed. Students should discuss their electives with their advisor. *Elective credit may vary based on Math course selection, second language requirements, prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The amount indicated in the requirements list is the amount needed to bring the total to 120 credits and may appear in variable form based on the degree. However students may end up needing to complete more or less on a case-by-case basis.

[4] See the Viewing a Wider World (https://catalogs.nmsu.edu/nmsu/general-education-viewing-wider-world/#viewingawiderworldtext) section of the catalog for a full list of courses.

[5] GEOL 495 Geology Field Camp, is only taught in the summer of odd-numbered years. Students should take GEOL 490 Field Geology, during the spring semester before taking GEOL 495.
GEOL 495 Geology Field Camp should be taken the summer after the third or fourth year. In cases where it is impossible to fit this class into a schedule, students may take a field camp at another university and transfer the credits. It is the student's responsibility to have the department head verify that the field camp is acceptable before taking the course.