GEOLOGY (EARTH AND ENVIRONMENTAL SCIENCES) - BACHELOR OF SCIENCE

A Suggested Plan of Study for Students

This roadmap assumes student placement in ENGL 1110G Composition I and MATH 1220G College Algebra . 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**
GEOL 1110G or HNRS 2116G	Physical Geology or Earth, Time and Life	4
MATH 1220G	College Algebra (or higher)	3
Choose one from the following:		3
COMM 1115G	Introduction to Communication	
COMM 1130G	Public Speaking	
ACOM 1130G	Effective Leadership and Communication in Agriculture	
HNRS 2175G	Introduction to Communication Honors	
Area V: Humanities Course [1]		3
Area VI:Creative and Fine Arts Course [1]		3
	Credits	**16**
Semester 2		
Choose one from the following:		4
ENGL 1110G	Composition I	
ENGL 1110H	Composition I Honors	
ENGL 1110M	Composition I	
CHEM 1215G	General Chemistry I Lecture and Laboratory for STEM Majors	4
Elective		1
BIOL 2610G & BIOL 2610L	Principles of Biology: Biodiversity, Ecology, and Evolution and Principles of Biology: Biodiversity, Ecology, and Evolution Laboratory	4
ECON 2120G	Principles of Microeconomics Honors	3
	Credits	**16**

Second Year

Semester 1		
GEOL 1150	Introduction to Rocks and Minerals	3
GEOL 305V	Fossils and the Evolution of Life	3
PHYS 1230G or PHYS 2230G	Algebra-Based Physics I or General Physics for Life Science I	3
PHYS 1230L or PHYS 2230L	Algebra-Based Physics I Lab or Laboratory to General Physics for Life Science I	1
PHYS 2231	Supplemental Instruction to General Physics for Life Sciences I	1
Second Language, first course in sequence [2]		4
	Credits	**15**
Semester 2		
GEOL 335V	Earthquakes, Volcanoes, Hurricanes, and Floods: The Role of Natural Hazards in Civ Past and Present	3
GEOL 420	Stratigraphy and Sedimentology	3
Second language, second course in sequence [2]		4
Non-Departmental Elective Course [3]		3
Elective Course [4]		3
	Credits	**16**

Third Year

Semester 1		
GEOL 353	Geomorphology	3
GEOL 360	General Geochemistry	3
Geology Departmental Elective Course [5]		3
English Composition Level 2 [1]		3
Viewing the Wider World [6]		3
	Credits	**15**
Semester 2		
Geology Departmental Elective Course [5]		3
GEOG 381	Cartography and GIS	4
AEEC 3120V or AEEC 3130V	Natural Resource Economics or Water Resource Economics	3
Non-Departmental Elective Course [3]		3
Elective Course [4]		3
	Credits	**16**

Fourth Year

Semester 1		
GEOL 470	Structural Geology	3
GEOL 452	Geohydrology	4
A ST 311 or MATH 1350G or MATH 2350G	Statistical Applications or Introduction to Statistics or Statistical Methods	3
Viewing the Wider World [6]		3
Non-Departmental Elective Course [3]		3
	Credits	**16**
Semester 2		
GEOL 449	The Geological Profession	1
Geology Departmental Elective course [5]		3
Non-Departmental Elective Course [3]		3
Elective Course [4]		3
	Credits	**10**
	Total Credits	**120**

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. See the Second Language section of the Requirements Tab (p.) for this degree for more information.
3. **Non-Departmental Elective Courses:**
   - SOIL 2110 Introduction to Soil Science/SOIL 2110L Introduction to Soil Science Laboratory
   - SOIL 370 Environmental Soil Science
   - CHEM 1225G General Chemistry II Lecture and Laboratory for STEM Majors
   - CHEM 2115 Survey of Organic Chemistry and Laboratory
   - POLS 320 Making Public Policy
   - GEOG 373 Introduction to Remote Sensing

- GEOG 473 Advanced Remote Sensing
- EPWS 380V Science & Society
- RGSC 2110 Introduction to Rangeland Management
- RGSC 302V Forestry and Society
- GEOL courses: 300-400 level courses other than those used to satisfy the Departmental Requirements and Departmental Electives

[4] Elective credit may vary depending on prerequisites, dual credit, AP credit, double majors, and/or minor coursework. The elective credit in the requirement list is the amount needed to bring the total to 120 credits and may vary based on the degree. Students may need to complete more or less courses on a case-by-case basis and each student should discuss this with their advisor.

[5] **Departmental Electives:**

- GEOL 312 Mineralogy and Optics
- GEOL 399 Igneous and Metamorphic Petrology
- GEOL 465 Isotope Geochemistry
- GEOL 478 Petroleum Systems and Stratigraphy
- GEOL 480 Seminar
- GEOL 490 Field Geology
- GEOL 491 Tectonic Evolution of North America
- GEOL 495 Geology Field Camp

[6] 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.