

**GEOLOGICAL SCIENCES - Environmental Geoscience Option**  
**Sample Four-Year Degree Plan**  
**Bachelor of Science Degree in Geological Sciences (total: 120 Units in the Major)**

Year 1	Fall 2016		Spring - 2017		Summer		Total
	Courses	Units	Courses	Units	Courses	Units	
	GE US history	3	GE A3	3			30
	Geol 1500	3	Geog 1550	3			
	NSS1001 (E)(cl)	3	GE C (1 of 2)	3			
	GE A1	3	GE C (2 of 2)	3			
	GE A2	3	GE D (2 of 2)	3			
	Total	15	Total	15	Total	0	

Year 2	Fall - 2017		Spring - 2018		Summer		Total
	Courses	Units	Courses	Units	Courses	Units	
	GEOL 2520	4	Geol 3600	3			28
	Geog 2680	4	GE US Constitution	3			
	Geol 3010	3					
	Math 2110	4	Math 2120	4			
			GE E (1 of 1)	3			
	Total	15	Total	13	Total	0	

Year 3	Fall - 2018		Spring - 2019		Summer		Total
	Courses	Units	Courses	Units	Courses	Units	
	Chem 1100	5	Geol 4870	3			34
	GEOL 4100	3	Geol 4020	3			
	Geol 4840	3	Chem 1110	5			
	Geol 4xxx	3	Geol 4xxx	3			
	UD-GE-A	3	UD-GE-B	3			
	Total	17	Total	17	Total	0	

Year 4	Fall - 2019		Spring - 2020		Summer		Total
	Courses	Units	Courses	Units	Courses	Units	
	4XX	3	Geol 4220	3			28
			Geol 4xxx	3			
	Geol 4xxx	3	Geol 4xxx	3			
	Biol 1100	5	Biol 1200	5			
	UD-GE-C	3					
	Total	14	Total	14	Total	0	

**120**

Roadmap based on BIOL courses

I. Foundational Courses

Chem 1100		
Chem 1110		
Math 2110		Calc-I
Math 2120	Biol 3000	Calc-II or Biostatistics
Biol 1100	Phys 1100	Biology or Physics
Biol 1200	Phys 1200	

II. Lower Division Required Courses

GEOL 1500	Earth Revealed
GEOG 1550	Cultural Geography
GEOL 2520	Historical Geology
Geog 2680	Intro to geospatial analyses

III. Upper Division Required Courses

GEOL 3010	Mineralogy and Petrology
GEOL 3600	Mapping
GEOL 4020	Sedimentary Geology
GEOL 4100	Structural Geology
GEOL 4220	Environmental Geochemistry
GEOL 4840	Hydrogeology
GEOL 4870	Watershed Analysis

**Possible Electives (Select 6-7 courses from the following list)**

Other courses may be substituted with prior advisor approval.

- GEOL 4100 - Applied Climatology (3)
- GEOL 4300 - Stratigraphy and Sedimentology (4)
- GEOL 3210 - Geology of Southern California (3)
- GEOL 3700 - Geochemistry (3)
- GEOL 4222 - Forensic and Isotope Geochemistry (3)
- GEOL 4330 - Quaternary Geology (3)
- GEOL 4340 - Volcanology (3)
- GEOL 4350 - Coastal Processes and Environments (3)
- GEOL 4810 - Engineering Geology (3)
- GEOL 4830 - Photogeology (3)
- GEOL 4850 - Groundwater Management and Models (3)
- GEOL 4900 - Special Topics in Geology (1-3)
- GEOL 4910 - Special Laboratory Topics in Geology (1-2)
- GEOL 4990 - Undergraduate Directed Study (1-3)
- GEOG 3690 - Fundamentals of Geographic Information Systems (3)
- GEOG 4020 - Geomorphology (3)
- GEOG 4650 - GIS Applications in Environmental Studies (3)
- GEOG 4660 - Remote Sensing (3)
- GEOG 4680 - Digital Cartography (3)
- GEOG 4690 - Spatial Analysis and GIS Modeling (3)

<sup>1</sup>Remedial math and/or English course may be required depending on the entering student's score on standard placement tests (ELM and EPT)

<sup>2</sup>Students must complete Math 1040 prior to enrolling in Math 2110 (\*Prerequisite: Score of 50 or more on (or exemption from) ELM or MATH 0930 with a minimum C grade or satisfactory score on placement)

<sup>3</sup>Chem 1100 - Prerequisites: Score of 50 or more on (or exemption from) ELM or MATH 0930 with a minimum C grade

<sup>4</sup>The Writing Proficiency Examination (WPE) must be passed prior to completion of 90 semester units, including transferable units.