

GEOLOGY, BA

Natural Sciences, Mathematics, and Engineering (nsme) (<https://catalog.csub.edu/general-information/csub-information/school-natural-sciences-mathematics-engineering/>)

Department of Geological Sciences (<https://catalog.csub.edu/general-information/csub-information/school-natural-sciences-mathematics-engineering/department-geological-sciences/>)

Department Chair: William Krugh

Office: Science Building II, 340

Phone: (661) 654-3027

Email: geology@csub.edu

www.csub.edu/geology (<http://www.csub.edu/geology/>)

Program Maps for Natural Sciences, Mathematics, and Engineering (<https://programmmap.csub.edu/academics/interest-clusters/4e942a6e-b8e4-4b60-a1ae-334235acc581/>)

Program Requirements

Code	Title	Units
General Education Requirements		
Subject Area 1A: English Composition		3
Subject Area 1B: Critical Thinking		3
Subject Area 1C: Oral Communication		3
Subject Area 2: Mathematical Concepts & Quantitative Reasoning ⁴		0
Subject Area 3A: Arts		3
Subject Area 3B: Humanities		3
Upper Division 3 Arts or Humanities: (3UD)		3
Subject Area 4: Social and Behavioral Sciences		3
Upper Division 4 Social and Behavioral Sciences: (4UD)		3
Subject Area 5A: Physical Science ⁴		0
Subject Area 5B: Biological Sciences		3
Subject Area 5C: Laboratory ⁴		0
Upper Division 5 Science: (5UD) ⁴		0
Subject Area 6: Ethnic Studies		3
General Education Subtotal ⁶		30
Campus Requirements		
First-Year Seminar (FYS)		2
American Institutions: Government ⁷		3
American Institutions: History		3
Junior Year Diversity & Reflection (JYDR)		3
Graduation Writing Assessment Requirement (GWAR)		3
Capstone ⁵		0
<i>Campus Requirement Subtotal</i>		14
Major Requirements ¹		
<i>Lower Division</i>		
GEOL 2010	Physical Geology	4
GEOL 2040	Historical Geology	4
<i>Upper Division</i>		
GEOL 3000	Mineralogy and Petrology	4

GEOL 3010	Fundamentals of Geochemistry	4
GEOL 3040	Sedimentology and Stratigraphy	4
GEOL 3060	Principles of Environmental Geochemistry	4
GEOL 3070	Structural Geology	4
GEOL 3090	Principles of Geophysics	4
GEOL 4200	Professional Development for BA-BS Students	2
GEOL 4908	Senior Field Seminar	4
A minimum of sixteen additional GEOL units above 3000-level, eight of which must be at the 4000-level ²		16
GEOL 3011	Natural History of National Parks	
GEOL 3050	Geological Oceanography	
GEOL 3080	Geomorphology	
GEOL 3100	Plate Tectonics	
GEOL 4010	Hydrogeology	
GEOL 4020	Environmental Geochemistry	
GEOL 4030	Lithospheric Geodynamics	
GEOL 4040	Paleoclimatology	
GEOL 4050	GIS for Natural Sciences	
GEOL 4060	Fundamentals of Petroleum Exploration and Production	
GEOL 4070	Sequence Stratigraphy	
GEOL 4080	Physical Volcanology	
GEOL 4090	Field Course in Geology	
GEOL 4110	Clay Mineralogy	
GEOL 4150	Applied GIS	
GEOL 4170	Well Log Analysis	
GEOL 4770	Special Topics in Geology	
GEOL 4771	Special Topics in Geology 2	
<i>Cognates</i>		
CHEM 1000	Foundations of Chemistry ³	3
	or CHEM 1010 Preparation for College Chemistry	
MATH 1060	Precalculus II ³	4
PHYS 2110	College Physics I	4
	or PHYS 2210 Physics for Scientists and Engineers I	
Major Subtotal		65
Additional Units Needed Towards Graduation		11
Total Units		120

¹ The minimum acceptable GPA for these 65 units is 2.0

² GEOL 3310 Integrated Science: Earth Science, GEOL 3318 California Geology and Society, GEOL 3328 Water and the West are General Education courses intended for non-majors and do not count toward degree requirements; at least 8 units must be GEOL 4000 or above. Graduate level classes may be substituted with advisor approval

³ Or equivalent

⁴ Some major requirements may be used to satisfy General Education.

- Subject Area 5A satisfied in major and cognates, and
- Subject Area 2 satisfied in cognates.
- Students are waived from the Upper Division area of their program.

⁵ Some major requirements may be used to satisfy Campus Requirements.

- Capstone satisfied in major

⁶ Some General Education requirements are included in major.

⁷ American Institution - Government (American & Constitutional Ideals) satisfies one course of the two required in Subject Area 4.

Note: One semester unit normally represents 50 minutes of lecture or 150 minutes of laboratory study. For every unit, students are expected to devote 2-3 hours of outside study per week.