

BACHELOR OF SCIENCE IN EARTH SCIENCE (IMPACTED)

Major Requirements Worksheet

2013-2014 Catalog

Name: _____

Student ID: _____

Note: This checklist is not intended to replace advising from the major department. Students should consult with the major advisor to determine the appropriate sequence of courses. CSULB Enrollment Services prepares the Academic Requirements Report, which is the official graduation verification.

Grade	Course #	Course Title	Semester	Prerequisites (All prerequisite courses must have a "C" or better)
	GEOL 102	General Geology (3)		Pre/Corequisite: A course that fulfills the A.1 GE Requirement and High School Math*
	GEOL 104	Geology Laboratory (1)		Pre/Corequisite: A course that fulfills the A.1 GE Req., HS math*, Concurrent or prior enrollment in GEOL 102
	GEOL 240	Historical Geology (4)		GEOL 106 or both GEOL 102, 104
	GEOL 250	Introduction to Field Petrology and Geological Field Techniques (3)		GEOL 102 with 104 or 105; or GEOL 106. Pre/ Corequisite GEOL 240
	CHEM 111A	General Chemistry (5)		A passing score on the CPT; MATH 113 or 117 or 119A or 122
	MATH 122	Calculus I (4)		Appropriate MDPT placement; or MATH 111 and 113, or 117
	MATH 123	Calculus II (4)		MATH 122
	MATH 224	Calculus III (4)		MATH 123
	PHYS 151	Mechanics and Heat (4)		MATH 122 Pre/Corequisite
	PHYS 152	Electricity and Magnetism (4)		PHYS 151; Pre/corequisite MATH 123

Upper Division (for upper division advising, see your faculty advisor). Take ALL of the following courses:

	GEOL 322	Crystallography, Mineralogy and Optical Methods (5)		GEOL 250; CHEM 101 or 111A
	GEOL 350	Spring Field Geology (2)		GEOL 250 and 443. Pre/Corequisite GEOL 433
	GEOL 420	Geological Writing (3)		GE Foundation completed, upper division standing, GEOL 102, 104, 240, 250; and at least 6 units of Geology courses at 300-level or above. Additional GWAR requirements*
	GEOL 428	Igneous and Metamorphic Petrology and Petrography (4)		GEOL 322; CHEM 111A, 111B
	GEOL 433	Structural Geology (4)		GEOL 250, 322; PHYS 151
	GEOL 443	Stratigraphy/Sedimentology (4)		GEOL 240, 322
	GEOL 460	Introduction to Geophysics (3)		PHYS 151, 152; MATH 123; and GEOL 273

*See catalog for more detail

NOTE: See the catalog for courses that do not meet any specific or elective requirements for the major
Updated 05/08/13 AZ

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Additional Required Courses for the various emphasis are listed below [see catalog for prerequisites]

<p>1. <u>Geohydrology/Environmental Geology (122 units)</u> C E 205 Analytical Mechanics I (Statics) (3) C E 335 Fluid Mechanics (3) C E 336 Fluid Mechanics Laboratory (1) CHEM 111B General Chemistry (5) ES P 300I Environmental Law and Policy (3) GEOL 450 Summer Field Geology (4) GEOL 461 Introduction to Geochemistry (3) GEOL 477 Hydrogeology (3) MICR 200 General Microbiology for Health Professionals (4)</p>	<p>3. <u>Exploration Geophysics (124 units)</u> GEOL 462 Physics and Chemistry of Earth's Interior (3) MATH 247 Introduction to Linear Algebra (3) Math 370A Applied Mathematics I (3) PHYS 310 Analytic Mechanics I (3) PHYS 340A Electricity and Magnetism I (3) Take 8 units in consultation with undergraduate advisor.</p>
<p>2. <u>Engineering Geology (126 units)</u> C E 205 Analytical Mechanics I (Statics) (3) C E 345 Geotechnical Engineering I (3) C E 346 Geotechnical Engineering Laboratory (1) C E 445 Geotechnical Engineering II (3) CHEM 111B General Chemistry (5) GEOL 450 Summer Field Geology (4) GEOL 477 Hydrogeology (3) MAE 373 Mechanics of Deformable Bodies (3)</p>	<p>4. <u>Marine Geology/Oceanography (120 units)</u> CHEM 111B General Chemistry (5) GEOL 341 Paleontology and Biostratigraphy (4) GEOL 461 Introduction to Geochemistry (3) GEOL 465 Physical and Chemical Oceanography (3) GEOL 466 Oceanography Lab and Ocean Studies (1) GEOL 496 Investigations in Geology & Other Earth Sciences (1)</p>