

BACHELOR OF SCIENCE IN EARTH SCIENCE

Major Requirements Worksheet

2018-2019 Catalog

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. This checklist is to inform students of major requirements and course prerequisites only; the [CSULB Course Catalog](#) takes precedence in any conflict. CSULB Enrollment Services prepares the Academic Requirements Report, which is the official graduation verification.

Many prerequisites require a "C" or better; please check the course catalog for grade requirements.

Take ALL of the following courses:

Semester	Grade	Course #	Course Title	Prerequisites
		CHEM 111A	General Chemistry (5)	Passing score on CPT or other measures. <i>Pre/Corequisite:</i> MATH 112A or higher
		CHEM 111B	General Chemistry (5)	CHEM 111A, and MATH 112B or higher
		MATH 122	Calculus I (4)	Appropriate algebra/calculus placement; or MATH 111 and either MATH 112B or 113
		MATH 123	Calculus II (4)	MATH 122
		GEOL 102	General Geology (3)	<i>Pre/Corequisite:</i> GE A1 requirement, H.S. math
		GEOL 104	Geology Laboratory (1)	<i>Pre/Corequisite:</i> GE A1 requirement, H.S. math, GEOL 102
Fall		GEOL 240	Historical Geology (4)	GEOL 106, or both GEOL 102 and 104
Spring		GEOL 250	Introduction to Field Petrology and Geological Field Techniques (3)	GEOL 106; or GEOL 102 and either GEOL 104 or 105. <i>Corequisite:</i> GEOL 240
		PHYS 151	Mechanics and Heat (4)	<i>Pre/Corequisite:</i> MATH 122 or 123 or 224
		PHYS 152	Electricity and Magnetism (4)	PHYS 151. <i>Pre/Corequisite:</i> MATH 123

UPPER DIVISION COURSES (see major faculty advisor)

Take ALL of the following courses:

Semester	Grade	Course #	Course Title	Prerequisites
Fall		GEOL 322	Crystallography and Mineralogy (3)	GEOL 250 and CHEM 111A
Fall		GEOL 339	Geomorphology (3)	GEOL 106; or GEOL 140; or (GEOL 102 and either GEOL 104 or 105)
Spring		GEOL 350	Spring Field Geology (2)	GEOL 250 and 443. <i>Pre/Corequisite:</i> GEOL 433
Spring		GEOL 420	Geological Writing (3)	GE Foundation completed; upper division standing; GEOL 102 and 104 and 240 and 250; at least 6 units of Geology courses at 300-level or above. Additional GWAR requirements

Semester	Grade	Course #	Course Title	Prerequisites
Spring		GEOL 428	Igneous and Metamorphic Petrology and Petrography (3)	GEOL 322 and CHEM 111A and 111B
Spring		GEOL 433	Structural Geology (4)	GEOL 250 and 322 and PHYS 151
Fall		GEOL 443	Stratigraphy/Sedimentology (4)	GEOL 240 and 322
Summer		GEOL 450	Summer Field Geology (4)	GEOL 350 and 428 and 433 and 443
Spring		GEOL 460	Introduction to Geophysics (3)	PHYS 151 and 152 and MATH 123
Fall		GEOL 461	Introduction to Geochemistry (3)	CHEM 111A and 111B and MATH 123
Fall		GEOL 474	Physical Hydrology (3)	GEOL 102 and MATH 122 and PHYS 151

Take NINE units of electives (normally at upper division)

Must be approved in advance by the undergraduate advisor. At least one elective must be GEOL 447 or MATH 370A

Semester	Grade	Course #	Course Title	Prerequisites
		GEOL 447	Hydrogeology (4)	GEOL 102 and 104 and CHEM 111B and PHYS 152 and MATH 123
		MATH 370A	Applied Mathematics I (3)	MATH 123. Excludes freshmen