

# BACHELOR OF SCIENCE IN EARTH SCIENCE (IMPACTED)

## Major Requirements Worksheet

### 2017-2018 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. This checklist is to inform students of major requirements and course prerequisites only. CSULB Enrollment Services prepares the Academic Requirements Report, which is the official graduation verification. **Pre-Earth Science majors must complete their GE Foundation courses, and the highlighted† areas below all with a “C” or better and a cumulative GPA of 2.5, by 60 units to be considered for the major.**

The Earth Science program is designed for those students interested in a professional career in environmental, geotechnical, or engineering geology. The program also provides a fundamental education in geology that prepares students for graduate studies in the geological sciences. Students interested in pursuing a career in geophysics must consult the undergraduate advisor to construct an appropriate program.

Must complete three of the four courses to declare: MATH 112, MATH 123, CHEM 111A, and CHEM 112B.

Semester	Grade	Course #	Course Title	Prerequisites
		MATH 122†	Calculus I (4)	Appropriate MDPT placement; or MATH 111 and 113
		MATH 123†	Calculus II (4)	MATH 122
		CHEM 111A†	General Chemistry (5)	A passing score on the CPT. <i>Corequisite:</i> MATH 109 or higher
		CHEM 111B†	General Chemistry (5)	CHEM 111A and MATH 113 or 115 or 119A or 122
		PHYS 151	Mechanics and Heat (4)	<i>Pre/corequisite:</i> MATH 122
		PHYS 152	Electricity and Magnetism (4)	PHYS 151; <i>Pre/corequisite:</i> MATH 123
		GEOL 102	General Geology (3)	<i>Pre/Corequisite:</i> course that fulfills the A1 GE and High School Math*
		GEOL 104	Geology Laboratory (1)	<i>Pre/Corequisite:</i> course that fulfills the A1 GE, HS math*, concurrent or prior enrollment in GEOL 102
Fall		GEOL 240	Historical Geology (4)	GEOL 106 or <i>both</i> GEOL 102, 104
Spring		GEOL 250	Introduction to Field Petrology and Geological Field Techniques (3)	GEOL 102 with 104 or 105; or GEOL 106; <i>Corequisite:</i> GEOL 240

\*See catalog for more detail

## 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; CHEM 101 or 111A
Fall		GEOL 339	Geomorphology (3)	GEOL 102 with 104 or 105 or 106
Spring		GEOL 350	Spring Field Geology (2)	GEOL 250 <i>and</i> 443. <i>Pre/Corequisite</i> : GEOL 433
Spring		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 GVAR requirements*
Spring		GEOL 428	Igneous and Metamorphic Petrology and Petrography (3)	GEOL 322; CHEM 111A, 111B
Spring		GEOL 433	Structural Geology (4)	GEOL 250, 322; PHYS 151
Fall		GEOL 443	Stratigraphy/Sedimentology (4)	GEOL 240, 322
Summer		GEOL 450	Summer Field Geology (4)	GEOL 350, 428, 433, 443
Spring		GEOL 460	Introduction to Geophysics (3)	PHYS 151, 152; and MATH 123
Fall		GEOL 461	Introduction to Geochemistry (3)	CHEM 111A,B and MATH 123
Fall		GEOL 474	Physical Hydrology (3)	GEOL 102, MATH 122, PHYS 151

\*See catalog for more detail

Choose **ONE** of the following courses:

Semester	Grade	Course #	Course Title	Prerequisites
Spring		GEOL 447	Hydrogeology (4) <b>OR</b>	GEOL 102, 104; CHEM 111B; PHYS 152; MATH 123
		MATH 370A	Applied Mathematics (3)	MATH 123

Choose **9** units of electives (normally at upper division)

Must be approved in advance by the undergraduate advisor.

Semester	Grade	Course #	Course Title	Prerequisites