



BACHELOR OF SCIENCE IN EARTH SCIENCE FOUR YEAR DEGREE WORKSHEET 2019-2020 Catalog

This degree worksheet is intended to help you develop a balanced course schedule while completing your degree within 4 years. The same sequence of courses (with fewer courses each semester) is also recommended for students completing their degree in 5 or 6 years. This worksheet is not intended to replace academic advising with your assigned advisor. Students should consult with their assigned advisor to determine the appropriate sequence of required courses and electives based on their academic goals. Please note that your Major Specific Requirements (MSRs) are **bolded** in the document and are also listed as an “MSR” in the notes column. These courses must be completed in order to declare your major. **All students must have a GPA of 2.5 or higher in the STEM MSR suite.**

Pre-Earth Science first-time freshmen must complete CHEM 111A and MATH 122 or higher, and GEOL 102 and GEOL 104 **within one year of matriculation.** Some students may need to take courses during Summer Session to meet these requirements. Students who have not met the requirements by the required semester must either declare another major or meet with an Academic Advisor to determine if the student's performance in the courses merits an additional semester to complete.

CSULB Enrollment Services prepares the Academic Requirements Report, which is the official graduation verification.

Year 1

Semester	Course #	Course Title (Units)	Prerequisites	Notes
1	GEOL 102	General Geology (3)		MSR
	GEOL 104	General Geology Lab (1)	<i>Corequisite:</i> GEOL 102	MSR
	MATH 122 (area B4)	Calculus I (4)	MATH 111 and either 112B or 113	MSR
	GE (area A2)	Written Communication (3)		MSR
	GE (area C,D,E)	Other Exploration (3)		
	NSCI 190A	Experience Success Program 1 (1)		Fall only
2	CHEM 111A	General Chemistry (5)	Appropriate Placement, <i>Corequisite:</i> MATH 112A or 112B or higher, CHEM 95 if needed	MSR
	MATH 123 (area B4)	Calculus II (4)	MATH 122	MSR
	GE (area A1)	Oral Communication (3)		MSR
	GE (area A3)	Critical Thinking (3)		MSR

Year 2

Semester	Course #	Course Title (Units)	Prerequisites	Notes
3	GEOL 240	Historical Geology (4)	GEOL 102 and 104	Fall only
	CHEM 111B	General Chemistry (5)	CHEM 111A or 112A, MATH 112B or higher	
	PHYS 151	Mechanics and Heat (4)	MATH 122	
	GE (area C,D,E)	Other Exploration (3)		
4	GEOL 250	Introduction to Field Petrology and Geological Field Techniques (3)	GEOL 102 and 104	Spring only
	GE (area B2)	Life Science (3-4)		Okay to take B2NL
	PHYS 152	Electricity and Magnetism (3)	PHYS 151, <i>Pre/Corequisite</i> : MATH 123	
	GE (area C,D,E)	Other Exploration (3)		
	Elective	Elective Requirement (1-3)		

Year 3

Semester	Course #	Course Title (Units)	Prerequisites	Notes
5	GEOL 474	Physical Hydrology (3)	GEOL 102, MATH 122, and PHYS 151	Fall only
	GEOL 322	Crystallography and Mineralogy (3)	GEOL 250 and CHEM 111A	Fall only
	GEOL 339	Geomorphology (3)	GEOL 102 and 104	Fall only
	Elective	Earth Science Approved (3)		
	GE (area C,D,E)	Other Exploration (3)		
6	GEOL 428	Igneous and Metamorphic Petrology and Petrography (3)	GEOL 322 and CHEM 111A and 111B	Spring only
	GEOL 420	Geological Writing (3)	GEOL 102, 104, 240 and 250, GE Foundation, GEAR score of 11 or higher	Spring only
	GEOL 433	Structural Geology (4)	GEOL 250, 322, and PHYS 151	Spring only
	Elective	Earth Science Approved Elective (3)		
	GE (area C,D,E)	Other Exploration (3)		

Year 4

Semester	Course #	Course Title (Units)	Prerequisites	Notes
7	GEOL 443	Stratigraphy/Sedimentology (4)	GEOL 240 and 322	Fall only
	Elective	Earth Science Approved Elective (3)		
	GEOL 461	Introduction to Geochemistry (3)	CHEM 111A or 112A and 111B or 112B, MATH 123	Fall only
	GE (area C,D,E)	Other Exploration (3)		
8	GEOL 350	Spring Field Geology (2)	GEOL 250; <i>Pre/Corequisite</i> : GEOL 443	Spring only
	GEOL 477; OR MATH 370A	Hydrogeology (3); OR Applied Mathematics (3)	GEOL 102 and 104, CHEM 111B, PHYS 152, MATH 123; OR MATH 123	477 is Spring only
	GE (area C,D,E)	Other Exploration (3)		
	GE Upper Division (area B-UD, C-UD, D-UD)	Upper Division (3)	GE Foundation	
	GEOL 460	Introduction to Geophysics (3)	PHYS 151 and 152, and MATH 123	Spring only
	GEOL 450	Summer Field Geology (4)	GEOL 350, 428, 433, and 443, GE Foundation	Summer only