

BACHELOR OF SCIENCE IN BIOLOGY OPTION IN BIOLOGY EDUCATION FOUR YEAR DEGREE WORKSHEET 2017-2018 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.

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

Year 1

Semester	Course #	Course Title (Units)	Prerequisites	Notes
1	CHEM 111A	General Chemistry (5)	passing score on the CPT; <i>Corequisite:</i> MATH 109 or higher	
	MATH 119A	Survey of Calculus I (3)	MATH 113	
	GE (area A1)	Written Communication (3)		
	GE (area C,D,E)	Other Exploration (3)		
	NSCI-190A	Experience Success Program 1 (1)		Fall only
2	CHEM 111B	General Chemistry (5)	CHEM 111A and either MATH 119A or 122	
	BIOL 211	Intro. to Evolution and Diversity (4)	<i>Pre/Corequisite:</i> CHEM 111A	
	GE (area A2)	Oral Communication (3)		
	GE (area A3)	Critical Thinking (3)		

Year 2

Semester	Course #	Course Title (Units)	Prerequisites	Notes
3	CHEM 227; OR CHEM 220A	Fundamentals of Organic; OR Organic Chemistry I (3)	CHEM 111A; OR CHEM 111B. <i>Corequisite:</i> CHEM 223A	227 usually recommended
	CHEM 223A (if 220A taken)	Organic Chemistry Laboratory I (1)	CHEM 111B. <i>Corequisite:</i> CHEM 220A	
	BIOL 212	Introduction to Cell and Molecular Biology (4)	BIOL 211 and CHEM 111A; <i>Pre/Corequisite:</i> CHEM 111B	
	BIOL 260	Biostatistics (3)	BIOL 211 and either MATH 119A or 122	
	GE (area C,D,E)	Other Exploration (3)		
4	CHEM 220B (if 220A taken)	Organic Chemistry II (3)	CHEM 220A <i>Corequisite:</i> CHEM 223B or 320L	
	CHEM 223B (if 220B taken)	Organic Chemistry Laboratory II (1)	CHEM 220A and CHEM 223A <i>Corequisite:</i> CHEM 220B	
	BIOL 213	Intro. to Ecology and Physiology (4)	BIOL 211, 212 and CHEM 111B	
	ASTR 100	Astronomy (3)	MATH 119A or MATH 122	
	BIOL 340	Molecular Cell Biology (3)	BIOL 211, 212	
	GE (area C,D,E)	Other Exploration (3)	GE (area C, D, and E)	

Year 3

Semester	Course #	Course Title (Units)	Prerequisites	Notes
5	BIOL 312	Evolutionary Biology (3)	BIOL 211, 212, 213, 260	
	GEOL 102; OR GEOL 106	General Geology (3); OR Earth Science for Teachers (4)	GE Written Communication (A1) <i>Corequisite:</i> GEOL 104; OR GE Written Communication (A1)	
	GEOL 104 (if 102 taken)	Geology Lab (1)	GE Written Communication (A1) <i>Corequisite:</i> GEOL 102	
	BIOL 201; OR BIOL 311	Gen. Microbio. for Health Prof. (4); OR General Microbiology (4)	CHEM 111A and MATH 119A or 122; OR BIOL 211 and 212 and CHEM 111B	
	GE (area C,D,E)	Other Exploration (3)	GE (area C, D, and E)	
	GE (area C,D,E)	Other Exploration (3)	GE (area C, D, and E)	

Semester	Course #	Course Title (Units)	Prerequisites	Notes
6	BIOL 370	General Genetics (4)	BIOL 211, 212, and either BIOL 260; GE Written Communication (A1), MATH 119A (B2), GE Critical Thinking (A3), and GE Oral Communication (A2)	
	PHYS 100A; OR PHYS 151	General Physics (4); OR Mechanics and Heat (4)	MATH 109 or 113 or 119A or 122; OR <i>Pre/Corequisite:</i> MATH 122	
	BIOL 350	General Ecology (3)	BIOL 211, 212, 213, 260; MATH 119A or 122	
	GE Capstone (area F)	General Education & Foundation (3)	GE Written Communication (A1), MATH 119A (B2), GE Critical Thinking (A3), and GE Oral Communication (A2)	

Year 4

Semester	Course #	Course Title (Units)	Prerequisites	Notes
7	PHYS 100B; OR PHYS 152	General Physics (4); OR Electricity and Magnetism (4)	PHYS 100A; OR PHYS 151	
	BIOL 345; OR BIOL 447	Comparative Animal Physiology (3); OR Molecular Plant Physiology (3)	BIOL 211, 212 and 213; OR BIOL 340 and 370	447 is Spring only
	BIOL 427; OR BIOL 439	Vascular Plant Systematics (4); OR Plant Morphology (4)	BIOL 312 or 370	427 is Spring 439 is Fall only
	GE (area C,D,E)	Other Exploration (3)	GE (area C, D, and E)	
8	Elective	Bio. Education Animal Diversity (4)	BIOL 211, 212, and 213	
	SCED 404	The Nature of Science and Scientific Reasoning for Teachers (3)	GE Written Communication (A1), GE Critical Thinking (A3), and GE Oral Communication (A2), MATH 119A or 122 (B2)	
	Elective	Biology Education Approved Upper Division Elective (3)		
	BIOL 480	Seminars (1)	Take in last semester	
	GE (area C,D,E)	Other Exploration (3)	GE (area C, D, and E)	