

BACHELOR OF SCIENCE IN BIOCHEMISTRY 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; OR CHEM 112A	General Chemistry (5); OR Advanced General Chemistry (5)	passing CPT score; <i>Corequisite</i> : Math 109 or higher; OR department consent	112A not offered
	MATH 122	Calculus I (4)	MATH 111 and 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; OR CHEM 112B	General Chemistry (5); OR Advanced General Chemistry (5)	CHEM 111A and MATH 122; OR CHEM 112A	112B not offered
	MATH 123	Calculus II (4)	MATH 122	
	GE (area A2)	Oral Communication (3)		
	GE (area A3)	Critical Thinking (3)		

Year 2

Semester	Course #	Course Title (Units)	Prerequisites	Notes
3	CHEM 220A	Organic Chemistry I (3)	MATH 122 and CHEM 111B	
	BIOL 211	Intro. to Evolution and Diversity (4)	CHEM 111A	
	CHEM 251; OR Elective	Quantitative Analysis (4); OR Approved Elective	CHEM 111B; OR varies	
	GE (area C,D,E)	Other Exploration (3)	GE (area C, D, and E)	
4	CHEM 220B	Organic Chemistry II (3)	CHEM 220A. <i>Corequisite:</i> CHEM 320L	
	CHEM 320L	Organic Chemistry Laboratory (2)	CHEM 220A. <i>Corequisite:</i> CHEM 220B	
	BIOL 212	Intro. to Cell and Molecular Bio. (4)	BIOL 211	
	PHYS 151	Mechanics and Heat (4)		
	GE (area C,D,E)	Other Exploration (3)	GE (area C, D, and E)	

Year 3

Semester	Course #	Course Title (Units)	Prerequisites	Notes
5	CHEM 441A	Biological Chemistry (3)	CHEM 320L	
	PHYS 152	Electricity and Magnetism (4)	PHYS 151	
	BIOL 340	Molecular Cell Biology (3)	BIOL 211 and 212	
	GE (area C,D,E)	Other Exploration (3)	GE (area C, D, and E)	
	GE Capstone (area F)	General Education & Foundation (3)	GE Written Communication (A1), GE Critical Thinking (A3), and GE Oral Communication (A2) and MATH 122 (B2)	
6	CHEM 371B; OR CHEM 377B	Physical Chemistry (3); OR Fund. of Physical Chemistry (3)	CHEM 111B & MATH 224 & PHYS 152; OR CHEM 111B & MATH 123 & PHYS 152	371B is Spring only
	CHEM 441B	Biological Chemistry (3)	CHEM 441A	
	CHEM 361; OR NSCI 361	Chemical Communications (3); OR Scientific Research Comm. (3)	GE Written Communication (A1), GE Critical Thinking (A3), and GE Oral Communication (A2), and MATH 122 (B2) and CHEM 111B and CHEM 220A and GVAR	
	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)	

Year 4

Semester	Course #	Course Title (Units)	Prerequisites	Notes
7	CHEM 371A; OR CHEM 377A	Physical Chemistry (3) OR Fund. of Physical Chemistry (3)	CHEM 111B, MATH 224, PHYS 152; OR CHEM 111B, MATH 123, PHYS 152	371A is Fall only
	CHEM 443	Biological Chemistry Laboratory (4)	CHEM 441A and CHEM 361	
	Elective	Elective (3)		
	GE (area C,D,E)	Other Exploration (3)	GE (area C, D, and E)	
	GE Capstone (area F)	General Education & Foundation (3)	GE Written Communication (A1), GE Critical Thinking (A3), and GE Oral Communication (A2) and MATH 122 (B2)	
8	CHEM 420; OR CHEM 451	Advanced Organic Chemistry Lab (3); OR Instrumental Methods of Analysis (3)	CHEM 220B and 320L and either 361 or NSCI 361 OR PHYS 152 and either CHEM 361 or NSCI 361)	
	CHEM 461	Chemistry Capstone (1)	Must take in last semester	
	Elective	Bio Chemistry (3)		
	Elective	Elective (3)		
	Elective	Elective (2)		