

CNSM Academic Advising Center

College of Natural Sciences and Mathematics California State University Long Beach www.csulb.edu/cnsm/advising

FOUR YEAR DEGREE WORKSHEET2017-2018 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
	CHEM 111A;	General Chemistry (5);	passing CPT score; <i>Corequisite:</i> Math 109 or higher;	112A not
1	OR	OR	OR	offered
	CHEM 112A	Advanced General Chemistry (5)	department consent	
	MATH 122	Calculus I (4)	MATH 111 and 113	
	GE (area A1)	Written Communication (3)	Composition I	
	GE (area C,D,E)	Other Exploration (3)		
	NSCI 190A	Experience Success Program 1 (1)		Fall only
2	CHEM 111B; OR	General Chemistry (5); OR	CHEM 111A and MATH 122; OR	112B not offered
2	CHEM 112B	Advanced General Chemistry (5)	CHEM 112A	
	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)	CHEM 111B	
	PHYS 151	Mechanics and Heat (4)	MATH 122	
	CHEM 251;	Quantitative Analysis (4);	CHEM 111B;	
	OR	OR	OR	
	Elective	Approved Elective (4)	varies	
	GE (area C,D,E)	Other Exploration (3)	GE (area C, D, and E)	
	GE (area B1a)	Life Science (3)	Co-sequence: GE Life Science Lab	B1aNL okay
4	CHEM 220B	Organic Chemistry II (3)	CHEM 220A. Corequisite: CHEM 320L	
	CHEM 320L	Organic Chemistry Laboratory (2)	CHEM 220A. Corequisite: CHEM 220B	
	CHEM 361; <i>OR</i> 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 Corequisite: CHEM 220A.	
	PHYS 152	Electricity and Magnetism (4)	MATH 123	
	GE (area C,D,E)	Other Exploration (3)		

Year 3

Semester	Course #	Course Title (Units)	Prerequisites	Notes
	CHEM 371A;	Physical Chemistry (3);	CHEM 111B, MATH 224, PHYS 152;	371A is
5	OR	OR	OR	Fall only
	CHEM 377A	Fundamentals of Physical Chem. (3)	CHEM 111B, MATH 123, PHYS 152	
	CHEM 420;	Advanced Organic Chemistry Laboratory (3);	CHEM 220B and 320L and either CHEM 361 or NSCI 361;	
	OR	OR	OR	
	CHEM 498	Senior Theses (3)	CHEM 496; Instructor consent	
	GE (area C,D,E)	Other Exploration (3)		
	GE (area C,D,E)	Other Exploration (3)		
	Elective	Elective (3)		

Semester	Course #	Course Title (Units)	Prerequisites	Notes
6	CHEM 371B; <i>OR</i> 377B	Physical Chemistry (3); OR Fundamentals of Physical Chem. (3)	CHEM 111B, MATH 224, PHYS 152; OR CHEM 111B, MATH 123, PHYS 152	371B is Spring only
	CHEM 331	Inorganic Chemistry (3)	CHEM 111B or 112B	Fall only
	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)	
	GE Capstone (area F)	General Education & Foundation (3)	GE Written Communication (A1) and GE Oral Communication (A2) and GE Critical Thinking (A3) and MATH 122 (B2)	

Year 4

Semester	Course #	Course Title (Units)	Prerequisites	Notes
7	CHEM 451	Instrumental Methods of Analysis (5)	PHYS 152; and CHEM 361 or NSCI 361; and CHEM 371B or CHEM 377B	
	Elective	Elective (3)		
	GE Capstone (area F)	General Education & Foundation (3)	GE Written Communication (A1) and GE Oral Communication (A2) and GE Critical Thinking (A3) and MATH 122 (B2)	
	Elective	Elective (3)		
8	Upper Division Elective	Chemistry (3)		
	CHEM 461	Chemistry Capstone (1)	Must take in last semester	
	Elective	Elective (3)		
	Elective	Elective (3)		
	Elective	Elective (1)		
	Elective	Elective (3)		