

Sample 4 Year Roadmap for Students
in the Bachelor of Science Degree in
BIOCHEMISTRY** (Total 120 Units)

	Fall	Spring	Total Units
Year 1	MATH 2110 (4) ^{a,b,g,*} Calculus I	MATH 2120 (4) ^b Calculus II	
	CHEM 1100 (5) ^c Gen. Chemistry I	CHEM 1110 (5)* Gen. Chemistry II	
	GE (A1, A2 or A3) (3)	GE (A1, A2 or A3) (3)	
	NSS 1001 (3) Intro. To CSULA	GE (A1, A2 or A3) (3)	
	Total 15 Units	Total 15 Units	30
Year 2	BIOL 1100 (5) ^g Princ. Biol. I	BIOL 1200 (5) Princ. Biol. II	
	CHEM 2200 (4) Organic Chem. I	CHEM 3200 (4) Organic Chem. II	
	CHEM 2201 (1) Organic Lab I	CHEM 2211 (1) Organic Lab II	
	CHEM 2300 (2) Intro. Biomol.	CHEM 3100 (3) ^d Writing for Chem.	
	LD GE Block C, D or AI (3)	LD GE Block C, D or AI (3)	
	Total 15 Units	Total 16 Units	31
Year 3	CHEM 4310 (3) Biochem. I	CHEM 4320 (3) Biochem. II	
	CHEM 4311 (2) Biochem. Lab	CHEM 4321 (2) Biochem. lab	
	CHEM 3500 (4) Quant. Analysis	PHYS 2200 (5) Gen. Physics II	
	PHYS 2100 (5) ^g Gen. Physics I	LD GE Block C, D or AI (3)	
		LD GE Block B, C, D or AI (3)	
	Total 14 Units	Total 16 Units	30
Year 4	CHEM 3600 (4) Inorg. Chem.	CHEM 4890 (3) ^{e,g} Capstone	
	CHEM UD elective (3) ^f	CHEM UD elective (4) ^f	
	LD GE Block C, D or AI (3)	CHEM 4420 (3) Physical Chem.	
	LD GE Block C, D or AI (3)	UD GE Block C or D (3)	
	UD GE Block C or D (3)		
	Total 16 Units	Total 13 Units	29
GRAND TOTAL		120	

Revised date: 11/3/17

NOTE: a summary of what courses are prerequisites to others is found in a separate document

- a. The prerequisite to this course is MATH 1040.
- b. For MATH and 2120, if a student earns less than B- , a 1 unit activity is a required co-requisite.
- c. Prerequisite for this course is a score of >50 on ELM or ≥C in MATH 0930
- d. This course must be taken before CHEM 4311 and CHEM 4890
- e. Prerequisites: Completion of Blocks A and B4, an additional course from Block B, and at least one course each from blocks C and D, and CHEM 3100
- f. Students must take a minimum of 2 units of coursework listed under Chemistry and a minimum of 2 units of coursework listed under Biology and Microbiology totaling 7 units which may include a maximum of 1 unit of CHEM 499.

g. GE "double counting": This roadmap already incorporates double counting, so if you follow this roadmap, you won't be taking unnecessary general education courses. These are the GE requirements and the course you will be taking that counts for it: GEB4 Quantitative Reasoning/MATH 2110; GEB1 Physical Sciences/PHYS 2100; GEB2 Biological Sciences/BIOL 1100. This "double counting" saves you 9 units of LD GE coursework. In addition, CHEM 4890 is required and satisfies your UD GE B requirement, saving you 3 more units of UD GE coursework.

Additional GE requirements: One GE course must have an "re" designation (race/ethnicity) and another GE course must have either an "re" or "d" (diversity) designation. One GE course must have a "wi" designation. Note that some GE courses may have more than one designation (such as cl and d) and that course CAN be used to satisfy both requirements

* These courses have been identified as success markers (MATH 1040, CHEM 1110, MATH 2110)

**Effective Fall, 2018: Freshmen applicants will be offered admission to a 'pre-major.' Students who accept the offer of admission and enroll will pursue required lower division coursework, and then may declare the major when they complete the major-specific criteria listed here: <http://www.calstatela.edu/admissions/major-specific-criteria>