

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

	Fall	Spring	Total Units
Year 1	MATH 2110 (4) <sup>a,b,h</sup> Calculus I	MATH 2120 (4) <sup>b</sup> Calculus II	<b>30</b>
	CHEM 1100 (5) <sup>c</sup> 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)	
	<b>Total 15 Units</b>	<b>Total 15 Units</b>	
Year 2	MATH 2130 (3) <sup>b</sup> Calculus III	CHEM 3100 (3) <sup>d</sup> Writing for Chem.	<b>33</b>
	PHYS 2100 (5) <sup>h</sup> Gen. Physics I	PHYS 2200 (5) Gen. Physics 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	
	LD GE Block B, C, D or AI (3)	CHEM 3500 (4) Quant. Analysis	
	WPE 0		
	<b>Total 16 Units</b>	<b>Total 17 Units</b>	
Year 3	MATH 2150 (3) Differential Eq.	CHEM 4420 (3) Physical Chem.	<b>29</b>
	CHEM 4410 (4) Physical Chem.	CHEM 4430 (1) Physical Chem.	
	CHEM 3600 (4) Inorg. Chem.	CHEM 4431 (2) Physical Chem. Lab	
	LD GE Block B, C, D or AI (3)	CHEM 4300 (3) Intro. Biochem.	
		LD GE Block B, C, D or AI (3)	
		LD GE Block B, C, D or AI (3)	
<b>Total 14 Units</b>	<b>Total 15 Units</b>		
Year 4	CHEM 4810 (2) Adv. Synth. Meth.	CHEM 4890 (3) <sup>f,h</sup> Capstone	<b>28</b>
	CHEM 45XX (2) <sup>e</sup> Adv. Analytical	CHEM 45XX (2) <sup>e</sup> Adv. Analytical	
	CHEM UD elective (3) <sup>g</sup>	CHEM UD elective (1) <sup>g</sup>	
	LD GE Block B, C, D or AI (3)	LD GE Block B, C, D or AI (3)	
	LD GE Block B, C, D or AI (3)	UD GE Block C or D (3)	
	UD GE Block C or D (3)		
<b>Total 16 Units</b>	<b>Total 12 Units</b>		
<b>GRAND TOTAL</b>		<b>120</b>	

Revised date: 9/28/15

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 2110, 2120, 2130, 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. Satisfactory completion of GWAR is a pre-requisite. This course must be taken before CHEM 4431 and CHEM
- e. Choose 2 of 3 possible 45XX Advanced analytical courses
- f. Prerequisites: A passing grade on the GWAR, 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
- g. A total of 4 units of UD CHEM electives, which may include a maximum of 1 unit of CHEM 499
- h. 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. This "double counting" saves you 6 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