

**Chemistry, B.S. - General Chemistry Subplan/Option: 120 units**  
2019-2020 Academic Year

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
<b>Year 1</b>	CHM 1210 General Chemistry I (B1) (Success Marker)	Prereq: C or better in MAT 12, 105, 106, 112, 114, 115, 116, 120, 125, 130, 191, 214, 216, 224, MAT 1050, MAT 1052, MAT 1060, MAT 1140, MAT 1150, MAT 1200, MAT 1250, MAT 1300, MAT 1310, MAT 1910, MAT 2140, MAT 2240, MAT 2250, STA 120, or STA 1200; Coreq: CHM 1210L.	3	CHM 1220 General Chemistry II (B1) (Success Marker)	Prereq: C- or better in CHM 1210, CHM 122 or CHM 122B; and C- or better in CHM 1210L, CHM 122L or CHM122LB. Coreq: CHM 1220L.	3	
	CHM 1210L General Chemistry Laboratory I (B3) (Success Marker)	Coreq: CHM 1210.	1	CHM 1220L General Chemistry Laboratory II (B3) (Success Marker)	Prereq: C- or better in CHM 1210, CHM 122 or CHM 122B; and C- or better in CHM 1210L, CHM 122L or CHM122LB. Coreq: CHM 1220.	1	
	MAT 1140 Calculus I (B4) (Success Marker)	Prereq: C or better in MAT 1050 and MAT 1060, or appropriate score on MDTF or ALEKS placement test.	4	MAT 1150 Calculus II (B4) (Success Marker)	Prereq: MAT 1140, MAT 115B, MAT 1140C, AP Calc AB $\geq$ 3, or AP Calc BC $\geq$ 3.	4	
	BIO 1150 Basic Biology (B2)	Coreq: BIO 1150L.	3	PHY 1510 Introduction to Newtonian Mechanics (B1)	Prereq: C- or better in MAT 114 or MAT 1140. Coreq: PHY 1510L.	3	
	BIO 1150L Basic Biology Laboratory (B3)	Coreq: BIO 1150.	1	PHY 1510L Newtonian Mechanics Laboratory (B3)	Coreq: PHY 1510.	1	
	GE Area A2: Written Communication (Success Marker)		3	GE Area A1: Oral Communication		3	
	<b>Total Units</b>		<b>15</b>	<b>Total Units</b>		<b>15</b>	

Year 2	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
	CHM 2210 Quantitative Analysis	Prereq: C- or better in CHM 123 or CHM 1220; and CHM 123L or CHM 1220L. Coreq: CHM 2210L.	2	CHM 2910A Chemical Communication Activity	Prereq: C- or better in CHM 1220 or CHM 123, and C- or better in CHM 1220L or CHM 123L.	1	
CHM 2210L Quantitative Analysis Laboratory	Prereq: C- or better in CHM 123 or CHM 1220; and C- or better in CHM 123L or CHM 1220L. Coreq: CHM 2210.	2	CHM 3150 Organic Chemistry II	Prereq: C- or better in CHM 3140, CHM 315, or CHM 315B.	3		
CHM 3140 Organic Chemistry I	Prereq: C- or better in CHM 123 or CHM 1220; and C- or better in CHM 123L or CHM 1220L.	4	CHM 3150L Organic Chemistry Laboratory II	Prereq: C- or better in CHM 3140L or CHM 318L; and CHM 316 or CHM 3150.	1		
CHM 3140L Organic Chemistry Laboratory I	Prereq: C- or better in CHM 3140 or CHM 315; CHM 3140 can be concurrent.	1	GE Area C1: Visual and Performing Arts		3		
PHY 1520 Introduction to Electromagnetism and Circuits	Prereq: C- or better in MAT 115 or MAT 1150; and C- or better in PHY 132, PHY 132B, PHY 1510B or PHY 1510. Coreq: PHY 1520L.	3	GE Area E: Lifelong Learning and Self-Development		3		
PHY 1520L Introductory Laboratory on Electromagnetism and Circuits	Coreq: PHY 1520.	1	GE Area D1: U.S. History American Ideals		3		
GE Area A3: Critical Thinking		3			0		
<b>Semester Total Units</b>		<b>16</b>	<b>Semester Total Units</b>		<b>14</b>		

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
Year 3	CHM 3270 Biochemistry I	Prereq: C- or better in CHM 1220 or CHM 123; C- or better in CHM 1220L or CHM 123L; C- or better in CHM 316 or CHM 3150; C- or better in CHM 317L or CHM 3140L; and D or better in BIO 115, BIO 121, BIO 1150 or BIO 1210. Coreq: CHM 3270L.	3	Option Elective	Select from Curriculum Sheet	3	<i>Graduation Writing Test must be taken before completion of 75 units.</i>
	CHM 3270L Biochemistry Laboratory I	Prereq: C- or better in CHM 1220, CHM 122, or CHM 123; C- or better in CHM 1220L, CHM 122L, or CHM 123L; C- or better in CHM 321, CHM 327, CHM 3210, or CHM 3270; C- or better in CHM 250L, CHM 317L, CHM 2010L, or CHM 3140L; D or better in BIO 115, BIO 121,	1	Option Elective	Select from Curriculum Sheet	3	
	CHM 3420 Spectroscopic Methods	Prereq: C- or better in CHM 221, CHM 2210 or CHM 221B; and C- or better in CHM 221L, CHM 2210L or CHM 221LB. Coreq: CHM 3420L.	1	Option Elective	Select from Curriculum Sheet	3	
	CHM 3420L Spectroscopic Methods Laboratory	Prereq: C- or better in CHM221, CHM 2210, or CHM221B; and CHM221L, CHM 2210L, or CHM221LB. Coreq: CHM 3420.	1	Option Elective	Select from Curriculum Sheet	3	
	CHM 3430 Separation Methods	Prereq: C- or better in CHM 221, CHM 2210, or CHM 221B; and C- or better in CHM 221L, CHM 2210L, or CHM 221LB. Coreq: CHM 3430L.	1	GE Area D2: U.S. Constitution and California Government		3	
	CHM 3430L Separation Methods Laboratory	Prereq: C- or better in CHM 221, CHM 2210, or CHM 221B; and C- or better in CHM 221L, CHM 2210L, or CHM 221LB. Coreq: CHM 3430.	1			0	
	GE Area B5: Science and Technology Synthesis		3			0	
	GE Area C2: Literature, Modern Languages, Philosophy and Civilization		3			0	
<i>Take the Graduation Writing Test</i>							
<b>Semester Total Units</b>			<b>14</b>	<b>Semester Total Units</b>			<b>15</b>

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
Year 4	Option Required	CHM 3040 Elements of Physical Chemistry I or CHM 3110 Classical Physical Chemistry	3	Option Required	CHM 3050 Elements of Physical Chemistry II or CHM 3120 Quantum Physical Chemistry	3	
	Option Elective	Select from Curriculum Sheet	4	CHM 3520L Physical Chemistry Laboratory	Prereq: C- or better in CHM 305, CHM 3040, CHM 3050, CHM 312, CHM 3110 or CHM 3120.	2	
	Option Elective	Select from Curriculum Sheet	3	Option Elective	Select from Curriculum Sheet	4	
	GE Area C1 or GE Area C2	Prereq: Select either C1: Visual and Performing Arts or C2: Literature, Modern Languages, Philosophy and Civilization course	3	GE Area D4: Social Science Synthesis		3	
	GE Area D3: Social Sciences: Principles, Methodologies, Value Systems, and Ethics		3	GE Area C3: Arts and Humanities Synthesis		3	
	<i>File an application to graduate</i>						
	<b>Semester Total Units</b>		<b>16</b>	<b>Semester Total Units</b>		<b>15</b>	
					<b>Total Units</b>	<b>120</b>	