

Biology, B.S.: 120 units 2021-2022 Academic Year

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
Year 1	BIO 1210 Foundations of Biology: Energy, Matter, and Information (B2) [FSp] (Success Marker)	Coreq: BIO 1210L.	3	BIO 1220 Foundations of Biology: Evolution, Ecology, and Biodiversity [FSp]	Coreq: BIO 1220L.	3	[] = Term Typically Offered F = Fall Sp = Spring Su = Summer e = even years o = odd years
	BIO 1210L Foundations of Biology: Energy, Matter, and Information Laboratory (B3) [FSp] (Success Marker)	Coreq: BIO 1210.	1	BIO 1220L Foundations of Biology: Evolution, Ecology, and Biodiversity Laboratory [FSp]	Coreq: BIO 1220.	1	
	CHM 1210 General Chemistry I (B1) [FSpSu]	Prereq: SAT Math \geq 550; ACT Math \geq 23; 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, Coreq: CHM 1210L.	3	CHM 1220 General Chemistry II (B1) [FSpSu]	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) [FSpSu]	Prereq: SAT Math \geq 550; ACT Math \geq 23; 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.	1	CHM 1220L General Chemistry Laboratory II (B3) [FSpSu]	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	
	ENG 1103 First Year Composition (A2) [FSp] (Success Marker)	or ENG 1101 - Stretch Composition II (3) (A2)	3	Major Required [FSpSu] (Success Marker)	MAT 1200 Calculus for Life Sciences (B4) or MAT 1140 Calculus I (B4)	3	
	GE Area E: Lifelong Learning and Self-Development [FSp]		3	GE Area A3: Critical Thinking [FSp]	ENG 2105 - Written Reasoning (3) (A3) or PHL 2020 - Critical Thinking (3) (A3)	3	
	Total Units		14	Total Units		14	

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
Year 2	BIO 2400 Genetics [FSpSu]	Prereq: BIO 121/BIO 121L, BIO 122/BIO 122L, and BIO 123/BIO 123L; BIO 121/BIO 121L and BIO 122/BIO 122L/BIO 1220C; BIO 121/BIO 121L/BIO 1210B and BIO 1220/BIO 1220L; BIO 1210/BIO 1210L and BIO 1220/BIO 1220L; BIO 115/BIO 115L/BIO 115A; BIO 1150/BIO 1150L;	3	BIO 3250 Principles of Ecology [FSp]	Prereq: BIO 121/BIO 121L, BIO 122/BIO 122L, and BIO 123/BIO 123L; BIO 121/BIO 121L and BIO 122/BIO 122L/BIO 1220C; BIO 121/BIO 121L/BIO 1210B and BIO 1220/BIO 1220L; or BIO 1210/BIO 1210L and BIO 1220/BIO 1220L.	3	TWO PATHWAYS FOR CHEMISTRY: CHM 2010/L → CHM 3210 OR CHM 3140/L and CHM 3150 → CHM 3210 or CHM 3270/L *CHM 3150 will count towards non-emphasis electives
	Major Required [FSpSu]	CHM 2010/L CHM 2010 Elements of Organic Chemistry/ Laboratory or CHM 3140/L CHM 3140 Organic Chemistry I /Laboratory	4	BIO 2110L Biostatistics Laboratory [FSp]	Prereq: BIO 1210 /BIO 1210L and BIO 1220 /BIO 1220L , or BIO 1150 /BIO 1150L ; and STA 1300 .	1	
	STA 1300 Biostatistics (B4) [FSp]	Prereq: C or better in MAT 12, ESM 12, MAT 1060, MAT 106, MAT 1250, MAT 125, MAT 1910, MAT 191, MAT 1050, MAT 105, STA 1200, or STA 120; or C- or better in MAT 1051.	3	Emphasis Electives	Select from Curriculum Sheet or CHM 3150* (if CHM 3140/L was previously taken)	4	
	GE Area A1: Oral Communication [FSp]		3	Emphasis Electives	Select from Curriculum Sheet	4	
	GE Area F: Ethnic Studies [FSp]		3	GE Area C2: Literature, Modern Languages, Philosophy and Civilization [FSp]		3	
	Semester Total Units		16	Semester Total Units		15	

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
Year 3	BIO 3220 Cell and Molecular Biology [FSpSu]	Prereq: BIO 303 or BIO 2400.	3	Emphasis Electives [FSp]	Select from Curriculum Sheet	4	*CHM 3270L will count towards non-emphasis electives
	PHY 1210 Physics of Motion, Fluids, and Heat (B1) [FSp]	Prereq: C- or better in MAT 106, MAT 1060, MAT 112, MAT 114, MAT 1140, MAT 1140C, MAT 115, MAT 116, MAT 1150, MAT 1200, or MAT 1300. (MAT 1300 can be concurrent.) Coreq: PHY 1210L.	3	PHY 1220 Physics of Electromagnetism, Circuits, and Light [FSp]	Prereq: C- or better in PHY 122, PHY 122B, PHY 1210, or PHY 1210B. Coreq: PHY 1220L.	3	
	PHY 1210L Physics of Motion, Fluids, and Heat Laboratory (B3) [FSp]	Coreq: PHY 1210.	1	PHY 1220L Electromagnetism, Circuits, and Light Laboratory [FSp]	Coreq: PHY 1220.	1	
	Major Required	CHM 3210 Elements of Biochemistry or CHM 3270/L Biochemistry I/Biochemistry Laboratory I*	3	GE Area C1: Visual and Performing Arts [FSp]		3	
	GE Area C1 or GE Area C2 [FSp]	Select either C1: Visual and Performing Arts or C2: Literature, Modern Languages, Philosophy and Civilization course	3	GE Area D2: U.S. Constitution and California Government [FSp]		3	
	GE Area D1: U.S. History American Ideals [FSp]		3			0	
	Semester Total Units		16	Semester Total Units		14	

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
Year 4	BIO 3240 Principles of Evolution [FSp]	Prereq: BIO 123/BIO 123L and BIO 303; or BIO 1220/BIO 1220L and BIO 2400; or BIO 122/BIO 122L and BIO 1220C.	3	Emphasis Electives [FSp]	Approved electives include any 4000-level or above courses.	4	Must have a total of at least 12 units at the 4000-level or above for emphasis electives **B5 course also counts as non-emphasis elective
	Emphasis Electives [FSp]	Select from Curriculum Sheet	4	Emphasis Electives [FSp]	Approved electives include any 4000-level or above courses.	4	
	Emphasis Electives [FSp]	Approved electives include any 4000-level or above courses.	3	Emphasis Electives [FSp]	Select from Curriculum Sheet	2	
	GE Area B5: Science and Technology Synthesis [FSp]	BIO 3000 or BIO 3010 or BIO 3030 or BIO 3040 or BIO 3070 or BIO 3090 or BIO 3120 or BIO 3130 or BIO 3280**	3	GE Area D4: Social Science Synthesis [FSp]		3	
	GE Area C3: Arts and Humanities Synthesis [FSp]		3	Emphasis Electives	Select from Curriculum Sheet	2	
	<i>File an application to graduate</i>						
Semester Total Units			16	Semester Total Units		15	
				Total Units		120	