

Major: Physics, B.S. - Integrated Science Subplan/Option: 120 units  
2018-2019 Academic Year

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
<b>Year 1</b>	MAT 1140 Calculus I (B4)	Prereq: C or better in MAT 1050 and MAT 1060, or appropriate score on MDTP or ALEKS placement test.	4	MAT 1150 Calculus II (B4)	Prereq: MAT 1140, MAT 115B, MAT 1140C, AP Calc AB >=3, or AP Calc BC >=3.	4	
	CHM 1210 General Chemistry I (B1)	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; or C- or better Coreq: CHM 1210L.	3	PHY 1510 Introduction to Newtonian Mechanics (B1)	Prereq: C- or better in MAT 114 or MAT 1140. Coreq: PHY 1510L.	3	
	CHM 1210L General Chemistry Laboratory I (B3)	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; or C- or better Coreq: CHM 1210.	1	PHY 1510L Newtonian Mechanics Laboratory (B3)		1	
	GE Area E: Lifelong Learning and Self-Development	SCI 1010/A	3	CHM 1220 General Chemistry II (B1)	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	
	GE Area A1: Oral Communication		3	CHM 1220L General Chemistry Laboratory II (B3)	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	
			0	GE Area A2: Written Communication		3	
			0			0	
			0			0	
	<b>Total Units</b>	<b>14</b>		<b>Total Units</b>	<b>15</b>		

Year 2	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
	MAT 2140 Calculus III	Prereq: MAT 116, MAT 214, MAT 1150, or MAT 1150C.	4	MAT 2250 Linear Algebra with Applications to Differential Equations	Prereq: MAT 116 or MAT 1150.	4	
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 or PHY 1510. Coreq: PHY 1520L.	3	PHY 2530 Introduction to Electromagnetic Radiation and Special Relativity	Prereq: C- or better in MAT 116 or MAT 1150; and C- or better in PHY 123, PHY 133, PHY 1220, or PHY 1520.	3		
PHY 1520L Introductory Laboratory on Electromagnetism and Circuits		1	PHY 2530L Introductory Laboratory on Electromagnetic Radiation and Special Relativity		1		
STS 2010 Introduction to Science, Technology, and Society (C2a)		3	MAT 2010 Introduction to Computational Methods in Mathematics	Prereq: MAT 116 or MAT 1150. Coreq: MAT 2010L.	2		
BIO 1210 Foundations of Biology: Energy, Matter, and Information (B2)		3	MAT 2010L Introduction to Computational Methods in Mathematics Laboratory		1		
BIO 1210L Foundations of Biology: Energy, Matter, and Information Laboratory (B3)		1	BIO 1220 Foundations of Biology: Evolution, Ecology, and Biodiversity	Prereq: BIO 121, BIO 121L, and BIO 1210B, or BIO 1210 and BIO 1210L. Coreq: BIO 1220L.	3		
		0	BIO 1220L Foundations of Biology: Evolution, Ecology, and Biodiversity Laboratory	Prereq: BIO 121, BIO 121L, and BIO 1210B, or BIO 1210 and BIO 1210L. Coreq: BIO 1220.	1		
		0			0		
<b>Semester Total Units</b>		<b>15</b>	<b>Semester Total Units</b>		<b>15</b>		

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
<b>Year 3</b>	PHY 2540 Introduction to Thermal and Quantum Physics	Prereq: C- or better in PHY 234 or PHY 2530.	3	PHY 3210 Advanced Classical Mechanics	Prereq: C- or better in PHY 2530; C- or better in MAT 201 or MAT 2010; and C- or better in MAT 216 or MAT 2250. Coreq: PHY 3210A.	3	<i>Graduation Writing Test must be taken before completion of 75 units.</i>
	PHY 2540L Introductory Laboratory on Thermal and Quantum Physics		1	PHY 3210A Advanced Classical Mechanics Recitation Activity		1	
	PHY 3600 Mathematical Methods of Physics I	Prereq: C- or better in MAT 216 or MAT 2250. Coreq: PHY 2540 and PHY 3600A.	3	GSC 1110 Principles of Geology (B1)		3	
	PHY 3600A Mathematical Methods of Physics I Recitation Activity		1	GSC 1410L Principles of Geology Laboratory (B3)		1	
	PHY 2990 Special Topics for Lower Division Students		1	PHY 4510A Advanced Laboratory Physics - Advanced Instrumentation Recitation Activity		1	
	GE Area C1: Visual and Performing Arts		3	PHY 4510L Advanced Laboratory Physics - Advanced Instrumentation Laboratory	Prereq: C- or better in PHY 235 or PHY 2540; and C- or better in PHY 235L or PHY 2540L. Coreq: PHY 4510A.	1	
	GE Area D1: U.S. History American Ideals		3	GE Area A3: Critical Thinking		3	
			0	GE Area D2: U.S. Constitution and California Government		3	
	<i>Take the Graduation Writing Test</i>						
<b>Semester Total Units</b>		<b>15</b>	<b>Semester Total Units</b>		<b>16</b>		

	Fall		Units	Spring		Units	Comments	
	Courses	Requirements/Comments		Courses	Requirements/Comments			
	<b>Year 4</b>	Option Elective	Select from Curriculum Sheet	3	PHY 4630 Undergraduate Seminar	Prereq: C- or better in PHY 235 or PHY 2540.		1
Option Elective		Select from Curriculum Sheet	3	Option Elective	Select from Curriculum Sheet	4		
GSC 1160 Introduction to Astronomy (B1)			3	GE Area B5: Science and Technology Synthesis		3		
GE Area C2b: Literature and Language Other than English			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		
			0	Unrestricted Elective	Select from Curriculum Sheet	1		
			0			0		
			0			0		
<i>File an application to graduate</i>								
<b>Semester Total Units</b>		<b>15</b>	<b>Semester Total Units</b>		<b>15</b>			
<b>Total Units</b>					<b>120</b>			