

Computer Science, B.S.: 120 units 2020-2021 Academic Year

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
Year 1	CS 1300 Discrete Structures [FSp]	Prereq: C or better in MAT105/MAT 1050 & MAT 106/MAT 1060; or MAT 1052 & MAT 106/MAT 1060; or MAT 112, MAT 114, MAT 115, MAT 116, MAT 214, MAT 215, MAT 216, MAT 1140, MAT 1150, or MAT 2140.	3	CS 1400 Introduction to Programming and Problem Solving [FSp]	Prereq: C or better in MAT 105/MAT 1050 and MAT 106/MAT 1060; MAT 1052 and MAT 106/MAT 1060; MAT 114, MAT 115, MAT 116, MAT 214, MAT 215, MAT 216, MAT 1140, MAT 1150 or MAT 2140; or Eligibility for MAT 114 or MAT 1140.	4	[] = Term Typically Offered F = Fall Sp = Spring Su = Summer e = even years o = odd years
	MAT 1140 Calculus I (B4) [FSpSu] (Success Marker)	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) [FSpSu]	Prereq: MAT 1140, MAT 115B, MAT 1140C, AP Calc AB ≥ 3 , or AP Calc BC ≥ 3 .	4	
	GE Area A2: Written Communication [FSp] (Success Marker)		3	BIO 1110 Life Science (B2) [FSpSu]	Prereq: Undergraduate standing.	2	
	GE Area E: Lifelong Learning and Self-Development [FSp]		3	BIO 1110L Life Science Laboratory (B3) [FSpSu]	Coreq: BIO 1110.	1	
	GE Area A3: Critical Thinking [FSp]		3	GE Area A1: Oral Communication [FSP]		3	
	Total Units			16	Total Units		

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Year 2	CS 2400 Data Structures and Advanced Programming [FSp]	Prereq: C or better in CS 141 or CS 1400; CS 130 or CS 1300; and MAT 114, MAT 115, MAT 116, MAT 214, MAT 215, MAT 216, MAT 1140, MAT 1150 or MAT 2140.	4	CS 2640 Computer Organization and Assembly Programming [FSpSu]	Prereq: C or better in CS 130 or CS 1300 and CS 141 or CS 1400.	3	
	CS 2600 Systems Programming [F]	Prereq: C or better in CS 128, CS 141, CS 1280 or CS 1400.	3	Major Electives	Select from Curriculum Sheet	3	
	Major Electives	Select from Curriculum Sheet	3	STA 2260 Probability and Statistics for Computer Scientists and Engineers [FSpSu]	Prereq: MAT 116, MAT 1150, MAT 132, or MAT 1310.	3	
	PHY 1510 Introduction to Newtonian Mechanics (B1) [FSp]	Prereq: C- or better in MAT 114, MAT 1140, MAT 1140C, MAT 115, MAT 116 or MAT 1150. Coreq: PHY 1510L.	3	GE Area D2: U.S. Constitution and California Government [FSp]		3	
	PHY 1510L Newtonian Mechanics Laboratory (B3) [FSp]	Coreq: PHY 1510.	1	GE Area C1: Visual and Performing Arts [FSp]		3	
	Semester Total Units		14	Semester Total Units		15	

	Fall		Units	Spring		Units	Comments
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Year 3	CS 3310 Design and Analysis of Algorithms [FSp]	Prereq: CS major, C or better in CS 241 or CS 2400, and STA 326 or STA 2260.	4	CS 3010 Numerical Methods [FSpSu]	Prereq: CS major, C or better in CS 241 or CS 2400, and MAT 116 or MAT 1150.	3	<i>Graduation Writing Test must be taken before completion of 75 units.</i>
	CS 3110 Formal Languages and Automata [FSp]	Prereq: CS major, and C or better in CS 241 or CS 2400.	3	CS 3650 Computer Architecture [FSp]	Prereq: CS major, and C or better in CS 264 or CS 2640.	4	
	GE Area C2: Literature, Modern Languages, Philosophy and Civilization [FSp]		3	CS 3560 Object-Oriented Design and Programming [FSpSu]	Prereq: CS major, and C or better in CS 241 or CS 2400.	3	
	GE Area D1: U.S. History American Ideals [FSp]		3	GE Area C1 or GE Area C2 [FSp]	Prereq: Select either C1: Visual and Performing Arts or C2: Literature, Modern Languages, Philosophy and Civilization course	3	
	GE Area D3: Social Sciences: Principles, Methodologies, Value Systems, and Ethics [FSp]		3	GE Area C3: Arts and Humanities Synthesis [FSp]		3	
	<i>Take the Graduation Writing Test</i>						
Semester Total Units			16	Semester Total Units		16	

Year 4	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
	CS 4080 Concepts of Programming Languages [FSp]	Prereq: CS major; C or better in CS 311 or CS 3110; and CS 264 or CS 2640.	3	CS 4310 Operating Systems [FSp]	Prereq: C or better in CS 365 or CS 3650 and STA 326 or STA 2260.	3	
CS 4630 Undergraduate Seminar [FSp]	Prereq: CS major and senior standing.	1	CS 4800 Software Engineering [FSp]	Prereq: CS major, and C or better in CS 241 or CS 2400.	3		
Major Electives	Select from Curriculum Sheet	3	Major Electives	Select from Curriculum Sheet	3		
Major Electives	Select from Curriculum Sheet	3	Major Electives	Select from Curriculum Sheet	2		
Major Electives	Recommendation: CS 4610 or CS 4620 or CS 4410	1	Major Electives	Recommendation: CS 4610 or CS 4620 or CS 4410	1		
CS 3750 Computers and Society (B5, D4) [FSp]	Prereq: Junior or senior standing; and Lower division GE requirements in Area A, at least two sub-areas in Area B, and at least two sub-areas in Area D.	3	Upper Division Synthesis GE [FSp]	GE areas: B5 or D4	3		
<i>File an application to graduate</i>							
Semester Total Units		14	Semester Total Units		15		
					Total Units	120	