

Construction Engineering and Management, B.S.: 124 units 2021-2022 Academic Year

	Fall		Units	Spring		Units	Comments	
	Courses	Requirements/Comments		Courses	Requirements/Comments			
Year 1	CE 1101 Construction Drafting [FSp]	Prereq: BSCE, BSCET, BSCEM, or MSCE Major. Coreq: MAT 114 or MAT 1140, and CE 1101L or ETC 130L.	2	CE 1011 Surveying Engineering [FSp]	Prereq: C- or better in CE 1001, CE 1101, CE 127, or ETC 130; and BSCE, BSCET, BSCEM, or MSCE Major. Coreq: CE 1011L, CE 134L, or ETC 131L; and MAT 114, MAT 1140, MAT 130, or MAT 1300.	3	[] = Term Typically Offered F = Fall Sp = Spring Su = Summer e = even years o = odd years	
	CE 1101L Construction Drafting Laboratory [FSp]	Prereq: BSCE, BSCET, BSCEM, or MSCE Major. Coreq: MAT 114 or MAT 1140, and CE 1101L or ETC 130L.	1	CE 1011L Surveying Engineering Laboratory [FSp]	Prereq: C- or better in CE 1001L, CE 1101L, CE 127L, or ETC 130L; and BSCE, BSCET, BSCEM, or MSCE Major. Coreq: CE 1011, CE 134, or ETC 131; and MAT 114, MAT 1140, MAT 130, or MAT 1300.	1		
	GE Area E: Lifelong Learning and Self-Development [FSp]	Recommend EGR 1000/L	3	MAT 1150 Calculus II (B4) [FSpSu] (Success Marker)	Prereq: MAT 1140, MAT 115B, MAT 1140C, AP Calc AB ≥ 3 , or AP Calc BC ≥ 3 .	4		
	MAT 1140 Calculus I (B4) [FSp] (Success Marker)	Prereq: C or better in MAT 1050 and MAT 1060, MAT 1070, or appropriate score on MDTP or ALEKS placement test.	4	GE Area A1: Oral Communication [FSP]		3		
	GE Area F: Ethnic Studies [FSp]		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 A2: Written Communication [FSp]		3	PHY 1510L Newtonian Mechanics Laboratory (B3) [FSp]	Coreq: PHY 1510.	1		
	Total Units		16	Total Units		15		

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Year 2	Fall		Units	Spring		Units	Comments
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	CE 2041 Engineering Statics [FSpSu]	Prereq: C- or better in MAT 1150, MAT 115, or MAT 130; C or better in PHY 1510 or PHY 131; and C of better in PHY 1510L or PHY 131L.	3	CE 3101 Construction Engineering [FSpSu]	Prereq: CE 1101, CE 1001, CE 128L, or ETC 140L; CE 1101L, CE 1001L, CE 128L, or ETC 140L; MAT 1140, MAT 114, MAT 130, or MAT 1300; and BSCE, BSCET, BSCEM, or MSCE Major. Coreq: CE 3101L.	2	
MAT 2140 Calculus III [FSpSu]	Prereq: MAT 116, MAT 214, MAT 1150, or MAT 1150C.	4	CE 3101L Construction Engineering Laboratory [FSpSu]	Prereq: CE 1101, CE 1001, CE 128L, or ETC 140L; CE 1101L, CE 1001L, CE 128L, or ETC 140L; MAT 1140, MAT 114, MAT 130, or MAT 1300; and BSCE, BSCET, BSCEM, or MSCE Major. Coreq: CE 3101.	1		
PHY 1520 Introduction to Electromagnetism and Circuits [FSp]	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	CE 2051 Mechanics of Materials [FSpSu]	Prereq: C- or better in ME 214, ETT 210, CE 2041, ARO 2041, or ETM 2101.	3		
PHY 1520L Introductory Laboratory on Electromagnetism and Circuits [FSp]	Coreq: PHY 1520.	1	MAT 2240 Elementary Linear Algebra and Differential Equations [FSpSu]	Prereq: MAT 116, MAT 1150, or MAT 1150C.	3		
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.	3	GSC 3210 Engineering Geology I (B5) [FSp]	Prereq: Upper Division standing; and Lower division GE requirements in Areas A and B. Coreq: GSC 3210L.	2		
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	GSC 3210 Engineering Geology I (B5) [FSp]	Prereq: Upper Division standing; and Lower division GE requirements in Areas A and B. Coreq: GSC 3210L.	2		
		0	GE Area D1: U.S. History American Ideals [FSp]		3		
		0			0		
Semester Total Units		15	Semester Total Units		16		

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Year 3	CE 3401 Geotechnical Engineering [FSp]	Prereq: MAT 115, MAT 216, MAT 224, MAT 2240, MAT 131, or MAT 1310; C- or better in ME 218, ETT 220, ETM 2201, or CE 2051; and BSCE, BSCET, BSCEM, or MSCE Major. Coreq: CE 2061, ME311, or ETT 310; and CE 3401L or CE 327L.	3	CE 3501 Structural Analysis I [FSpSu]	Prereq: C- or better in ME 218, ETT 220, ETM 2201, or CE 2051; C- or better in MAT 115, MAT 1140, MAT 1140C, MAT 216, MAT 224, MAT 2240, MAT 131, or MAT 1310; and BSCE, BSCET, BSCEM, or MSCE Major.	3	<i>Graduation Writing Test must be taken before completion of 75 units.</i>
	CE 3401L Geotechnical Engineering Laboratory [FSp]	Prereq: MAT 115, MAT 216, MAT 224, MAT 2240, MAT 131, or MAT 1310; C- or better in ME 218, ETT 220, ETM 2201, or CE 2051; and BSCE, BSCET, BSCEM, or MSCE Major. Coreq: ETT 310, ME 311, or CE 2061; and CE 3401 or CE 326.	1	CE 3501L Structural Design Laboratory [FSpSu]	Prereq: C- or better in ME 218, ETT 220, ETM 2201, or CE 2051; C- or better in MAT 115, MAT 1140, MAT 1140C, MAT 216, MAT 224, MAT 2240, MAT 131, or MAT 1310; and BSCE, BSCET, BSCEM, or MSCE Major. Coreq: CE 304 or CE 3501.	1	
	CE 2061 Fluid Mechanics [FSp]	Prereq: C- or better in ME 214, ETT 210, CE 2041, ARO 2041, or ETM 2101.	3	CE 3140 Construction Estimating [FSp]	Prereq: CE 3101 or ETC 202; CE 3101L or ETC 230; and BSCE or BSCET or BSCEM or MSCE Major. Coreq: CE 3140L.	3	
	CE 3121 Building Systems [FSp]	Prereq: CE 3101 or ETC 202; CE 3101L or ETC 230; and BSCE or BSCET or BSCEM or MSCE Major.	2	CE 3140L Construction Estimating Laboratory [FSp]	Prereq: CE 3101 or ETC 202; CE 3101L or ETC 230; and BSCE, BSCET, BSCEM, or MSCE major. Coreq: CE 3140.	1	
	IME 3011 App. of Stats in Engineering [FSp]	Prereq: MAT 115, MAT 116, MAT 214, MAT 215, MAT 216, MAT 224, or MAT 1150.	2	GE Area D2: U.S. Constitution and California Government [FSp]		3	
	CE 2030 Civil Engineering Materials [FSp]	Prereq: C- or better in ME 218, ETT 220, or CE 2051; CHM 121 or CHM 1210; and BSCE, BSCET, BSCEM, or MSCE Major. Coreq: CE 221L or CE 2030L.	2	GE Area C1: Visual and Performing Arts [FSp]		3	
	CE 2030L Civil Engineering Materials Laboratory [FSp]	Prereq: C- or better in ME 218, ETT 220, or CE 2051; CHM 121L or CHM 1210L Coreq: CE 221 or CE 2030.	1	CE 3150 Construction Equipment and Safety [FSp]	Prereq: CE 3101 or ETC 202, CE 3101L or ETC 230, CE 1011 or CE 134, and CE 1011L or CE 134L.	3	
	GE Area C2: Literature, Modern Languages, Philosophy and Civilization [FSp]		3			0	
Semester Total Units		17	Semester Total Units		17		

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Year 4	EGR 4810 Project Design Principles and Applications (B5) [FSp]	Prereq: Lower division GE requirements in Areas A and B.	1	EGR 4820 Project Design Principles and Applications (B5) [SpSu]	Prereq: Lower division GE requirements in Areas A and B.	1	
	CE 4510 Structural Design - Reinforced Concrete [F]	Prereq: ETC 311, CE 304, or CE 3501; CE 305L or CE 3501L; and BSCE, BSCET, BSCEM, or MSCE Major.	3	EGR 4830 Project Design Principles and Applications (B5) [SpSu]	Prereq: Lower division GE requirements in Areas A and B.	1	
	CE 4120 Construction Scheduling [F]	Prereq: ETC 305, ETC 304, or CE 3140; and BSCE, BSCET, BSCEM, or MSCE Major. Coreq: CE 4120L.	2	CE 4140 Construction Project Management and Accounting [FSp]	Prereq: ETC 305, ETC 304, or CE 3140; and BSCE, BSCET, BSCEM, or MSCE Major.	3	
	CE 4130 Construction Contracts [F]	Prereq: ETC 305, ETC 304, or CE 3140; and BSCE, BSCET, BSCEM, or MSCE Major.	3	Major Electives [FSp]	Select from Curriculum Sheet	3	
	GE Area B2: Life Sciences [FSp]		2	IME 4020 Ethical Concepts in Technology and Applied Science (B5, C3) [FSpSu]	Prereq: Lower division GE requirements in Area A, at least two sub-areas in Area B, and at least two sub-areas in Area C.	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	EGR 4050 Role of Design Professionals In Society (D4) [FSpSu]	Prereq: Lower division GE requirements in Areas A and D, and sub-area B4.	3	
	<i>File an application to graduate</i>						
Semester Total Units			14	Semester Total Units		14	
				Total Units		124	

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