

Major: Electromechanical Systems Engineering Technology, B.S.: 124 units
2018-2019 Academic Year

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
Year 1	ETE 1151 C/C++ Programming	Prereq: ESET or EMSET major; EGR 1000; EGR 1000L; and MAT 1060 or MAT 106. Coreq: ETE 1151L.	3	PHY 1210 Physics of Motion, Fluids, and Heat (B1)	Prereq: C- or better in MAT 106, MAT 1060, MAT 114, MAT 1140/MAT 1140A, or MAT 112. Coreq: PHY 1210L.	3	
	ETE 1151L C/C++ Programming Laboratory	Prereq: ESET or EMSET major; EGR 1000; EGR 1000L; and MAT 1060 or MAT 106. Coreq: ETE 1151.	1	PHY 1210L Physics of Motion, Fluids, and Heat Laboratory (B3)		1	
	MAT 1300 Technical Calculus I (B4)	Prereq: MAT 105 or MAT 1050 & MAT 106 or MAT 1060; MAT 1052 & MAT 106 or MAT 1060; MAT 105,M-T>=4,& M-A>=18;105,T>=6,&A>=14;1050,T>=4,& A>=18;1050,T>=6,& A>=14;1052,T>=4,&A>=18;1052,T>=6,& A>=14;106&A>=22;1060 & A>=22;A>=22&T>=4;A>=18&T>=6;105,A-Trig>=23	4	MAT 1310 Technical Calculus II	Prereq: MAT 116, MAT 1150 or MAT 1300.	4	
	EGR 1000 Engineering, Society, and You (E)		2	GE Area C1: Visual and Performing Arts		3	
	EGR 1000L Engineering, Society, and You Laboratory (E)		1	GE Area D1: U.S. History American Ideals		3	
	GE Area A2: Written Communication		3	GE Area C2b: Literature and Language Other than English		3	
			0			0	
			0			0	
	Total Units	14		Total Units	17		

Year 2	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
	ETM 2101 Applied Statics	Prereq: ETM Majors; and C- or better in MAT 1300 or MAT 130; PHY 1510 or PHY 121.	3	ETM 2111 Applied Dynamics	Prereq: ETM Majors; C- or better in MAT 1310 or MAT 131; and ETM 2101 or ETM 210.	3	
	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- o	3	ETM 2171 Material Science for Engineering Technology	Prereq: ETM Majors; CHM 1210 or CHM 121; and PHY 1510 or PHY 121.	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- o	1	ETE 2011 Electrical Networks	Prereq: EMSET major; MAT 1060 or MAT 106; PHY 1210 or PHY 123; and PHY 1210L or PHY 123L. Coreq: ETE 2011L.	3	
	PHY 1220 Physics of Electromagnetism, Circuits, and Light	Prereq: C- or better in PHY 122, PHY 122B, PHY 1210, or PHY 1210B. Coreq: PHY 1220L.	3	ETE 2011L Electrical Networks Laboratory	Prereq: EMSET major; MAT 1060 or MAT 106; PHY 1210 or PHY 123; and PHY 1210L or PHY 123L. Coreq: ETE 2011.	1	
	PHY 1220L Electromagnetism, Circuits, and Light Laboratory		1	GE Area A1: Oral Communication		3	
	GE Area C2a: Philosophy and Civilization		3	GE Area B2: Life Sciences		2	
	GE Area D2: U.S. Constitution and California Government		3			0	
			0			0	
Semester Total Units		17	Semester Total Units		15		

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
Year 3	ETM 3101 Applied Fluid Mechanics I	Prereq: ETM Majors; and C- or better in MAT 1310 or MAT 130; and C- or better ETM 2101 or ETT 210.	3	ETM 3081 Applied Heat Transfer	Prereq: ETM Majors; and C- or better in ETM 3101 or ETT 310.	3	<i>Graduation Writing Test must be taken before completion of 75 units.</i>
	ETE 3211 Electronic Systems	Prereq: Not open to ESET majors. EMSET major; MAT 1300 or MAT 130; and C- or better in ETE 2011 or ETT 201, and ETE 2011L or ETT 201L. Coreq: ETE 3211L.	3	ETM 3061 Applied Thermodynamics I	Prereq: ETM Majors; and C- or better in ETM 3101 or ETT 310.	3	
	ETE 3211L Electronic Systems Laboratory	Prereq: Not open to ESET majors. EMSET major; MAT 1300 or MAT 130; and C- or better in ETE 2011 or ETT 201, and ETE 2011L or ETT 201L. Coreq: ETE 3211.	1	ETM 3151 Machine Elements	Prereq: ETM Majors; C- or better in ETM 2111 or ETT 211; C- or better in ETM 2201/ETM 2201L or ETT 220/ETT 220L. Coreq: ETM 3151L.	3	
	ETM 2201 Strength of Materials	Prereq: ETM Majors; C- or better in MAT 1300 or MAT 130; C- or better in ETM 2101 or ETT 210; and C- or better in ETM 2171 or ETT 217. Coreq: ETM 2201L.	3	ETM 3151L Machine Elements Laboratory	Prereq: ETM Majors; C- or better in ETM 2111 or ETT 211; C- or better in ETM 2201/ETM 2201L. Coreq: ETM 3151.	1	
	ETM 2201L Strength of Materials Laboratory	Prereq: ETM Majors; C- or better in MAT 1300 or MAT 130; C- or better in ETM 2101 or ETT 210; and C- or better in ETM 2171 or ETT 217. Coreq: ETM 2201.	1	Major Elective	Select from Curriculum Sheet	3	
	Major Elective	Select from Curriculum Sheet	3	ETM 3301 Instrumentation and Control	Prereq: ETM Majors; and C- or better in ETE 3211 or ETT 321. Coreq: ETM 3301L.	3	
				ETM 3301L Instrumentation and Control Laboratory	Prereq: ETM Majors; and C- or better in ETE 3211 or ETT 321. Coreq: ETM 3301.	1	
<i>Take the Graduation Writing Test</i>							
Semester Total Units		14	Semester Total Units		17		

	Fall		Units	Spring		Units	Comments
	Courses	Requirements/Comments		Courses	Requirements/Comments		
Year 4	EGR 4810 Project Design Principles and Applications (B5)		1	EGR 4820 Project Design Principles and Applications (B5)		1	
	ETM 3341 Heating Ventilation and Air Conditioning I	Prereq: ETM Majors; and C- or better in ETM 3061 or ETM 306.	3	EGR 4830 Project Design Principles and Applications (B5)		1	
	ETE 4751L Introduction to Robotics Control and Applications Laboratory	Prereq: ESET major; ETE 3501 or ETE 350; ETE 3501L or ETE 350L; and C- or better in ETM 2121 or ETT 211. Coreq: ETE 4751.	1	IME 4020 Ethical Concepts in Technology and Applied Science (B5, C3)		3	
	ETE 4751 Introduction to Robotics Control and Application	Prereq: ESET major; ETE 3501 or ETE 350; ETE 3501L or ETE 350L; and C- or better in ETM 2121 or ETT 211. Coreq: ETE 4751L.	3	GE Area D4: Social Science Synthesis		3	
	ETM 3141L Thermal Fluids Laboratory	Prereq: ETM Majors; C- or better in ETM 3101 or ETT 310; and ETM 3061 or ETM 306.	1	Major Elective	Select from Curriculum Sheet	3	
	Major Elective	Select from Curriculum Sheet	4	ETM 3121 Applied Fluid Mechanics II	Prereq: ETM Majors; and C- or better in ETM 2111 or ETT 211; and C- or better in ETM 3061 or ETM 306.	3	
	GE Area D3: Social Sciences: Principles, Methodologies, Value Systems, and Ethics		3			0	
			0			0	
	<i>File an application to graduate</i>						
	Semester Total Units		16	Semester Total Units		14	
Total Units						124	