



A Major Academic Plan (MAP) is one way to complete a degree in a set number of semesters. The *example* below is only one strategy. Actual plans for individual students will vary based on advisor recommendations and academic needs. Official Program Requirements including Major, General Education, Electives, and university requirements (see pg.2) are based on Catalog Year.

Course Subject and Title	Cr.	Min. Grade	*GE, UU or UM	**Sem. Offered	Prerequisite	Co-Requisite
Semester One						
GE Objective 1: ENGL 1101 Writing and Rhetoric I	3	C-	GE	F, S, Su	Appropriate placement score	
ESET 1100: Engineering Technology Orientation AND ESET 1100L: Intro to an Industrial Environment Lab OR ESET 1162: Industrial Safety and Regulations	2	C-		F, S, D	Minimum score of 30 on ALEKS or equivalent	
ESET 1118: Industrial Maintenance Mechanic I	2	C-				ESET 1118L
ESET 1118L: Industrial Maintenance Mechanic Lab I	1	C-		F, D		ESET 1118
ESET 1123: Mechanical Power Transmission I	2	C-		F, D		ESET 1123L
ESET 1123L: Mechanical Power Transmission Lab I	2	C-		F, D		ESET 1123
ESET 1140: Applied Technical Intermediate Algebra	5	C-		F, S, D		
Total	17					
Semester Two						
TGE 1159: Internship Strategies	1	C-		D		
ESET 1119: Industrial Maintenance Mechanic II	2	C-		S, D	ESET 1118	ESET 1119L
ESET 1119L: Industrial Maintenance Mechanic Lab II	1	C-		S, D		ESET 1119
ESET 1121: Basic Electricity and Electronics	4	C-		F, S		ESET 1121L
ESET 1121L: Basic Electricity and Electronics Lab	3	C-		F, S		ESET 1121
ESET 1125: Introduction to Structural Welding	1	C-		S, D		
ESET 1126: Introduction to Mechanical Drafting and CAD	1	C-		S, D		
ESET 1127: Mechanical Power Transmission II	2	C-		S, D	ESET 1123/L	ESET 1127L
ESET 1127L: Mechanical Power Transmission Lab II	2	C-		S, D		ESET 1127
Total	17					
Semester Three						
GE Objective 2: COMM 1101 Fundamentals of Oral Comm	3	C-	GE	F, S		
GE Objective 5: CHEM 1100 OR PHYS 1101/L	4	C-	GE	F, S		
GE Objective 3: MATH 1143 OR 1147 OR 1153 OR 1160 OR 1170 OR MGT 2216	3-5	C-	GE		Appropriate placement score	
ESET 1122: Electrical Systems and Motor Control Theory	3	C-		F, S, D	ESET 1121/L	ESET 1122L
ESET 1122L: Electrical Systems and Motor Control Theory Lab I	1	C-		F, S, D		ESET 1122
ESET 1117: Intro to Industrial Thermal Systems AND ESET 1117L: Intro to Industrial Thermal Systems Lab OR ESET 2220: Thermal Cycles and Heat Transfer	2-3	C-		F, D		
Total	16-19					
Semester Four						
GE Objective 6: TGE 1257 Applied Ethics in Technology (Recommended)	3	C-	GE	D		
ESET 2244: Rotating Equipment and Millwright Maintenance	4	C-		S, D	ESET 1127	ESET 2244L
ESET 2244L: Rotating Equipment and Millwright Maintenance Lab	3	C-		S, D	ESET 1127	ESET 2244
ESET 2245: Industrial Thermal Systems	2	C-		F, D	ESET 1117 OR ESET 2220	ESET 2245L
ESET 2245L: Industrial Thermal Systems Lab	1	C-		F		ESET 2245
ESET 2246: Materials and Metallurgy	2	C-		F, D		
Total	15					
Semester Five						
ESET 2239: Pumps, Valves, and Fluid Flow	5	C-		F, D	ESET 1127/L OR 1151/L OR 1130	ESET 2239L
ESET 2239L: Pumps, Valves, and Fluid Flow Lab	4	C-		F, D	ESET 1127/L OR 1151/L OR 1130	ESET 2239
ESET 2242: Practical Process Measurements and Control	2	C-		F, D	ESET 1122 or instructor permission	
ESET 2243: Hydraulic and Pneumatic Power	2	C-		S, D		ESET 2243L
ESET 2243L: Hydraulic and Pneumatic Power Lab	2	C-		S, D		ESET 2243
Total	15					

*GE=General Education Objective, UU=Upper Division University, UM= Upper Division Major

**See Course Schedule section of Course Policies page in the e-catalog (or input F, S, Su, etc.)

2024-2025 Major Requirements	CR	GENERAL EDUCATION OBJECTIVES Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9		15 cr. min
MAJOR REQUIREMENTS	64-65	1. Written English	ENGL 1101	3
ESET 1100: Engineering Technology Orientation AND ESET 1100L: Introduction to an Industrial Environment Lab OR ESET 1162: Industrial Safety and Regulations	2	2. Spoken English	COMM 1101	3
		3. Mathematics	MATH 1143, 1147, 1153, 1160, 1170 or MGT 2216	3-5
ESET 1117: Introduction to Industrial Thermal Systems AND ESET 1117L: Introduction to Industrial Thermal Systems Lab OR ESET 2220: Thermal Cycles and Heat Transfer	2-3	4. Humanities, Fine Arts, Foreign Lang.		
ESET 1118: Industrial Maintenance Mechanic I	2	5. Natural Sciences		
ESET 1118L: Industrial Maintenance Mechanic Lab I	1	CHEM 1100 OR PHYS 1101/L		4
ESET 1119: Industrial Maintenance Mechanic II	2			
ESET 1119L: Industrial Maintenance Mechanic Lab II	1			
ESET 1121: Basic Electricity and Electronics	4	6. Behavioral and Social Science		
ESET 1121L: Basic Electricity and Electronics Lab	3	TGE 1257 (Recommended)		3
ESET 1122: Electrical Systems and Motor Control Theory	3			
ESET 1122L: Electrical Systems and Motor Control Theory Lab	1	One Course from EITHER Objective 7 OR 8		
ESET 1123: Mechanical Power Transmission I	2	7. Critical Thinking		
ESET 1123L: Mechanical Power Transmission Lab I	2	8. Information Literacy		
ESET 1125: Introduction to Structural Welding	1	9. Cultural Diversity		
ESET 1126: Introduction to Mechanical Drafting and Computer Aided Design	1			
ESET 1127: Mechanical Power Transmission II	2	General Education Elective to reach 36 cr. min.		
ESET 1127L: Mechanical Power Transmission Lab II	2	Total GE		16-18
ESET 1140: Applied Technical Intermediate Algebra	5	Undergraduate Catalog and GE Objectives by Catalog Year		
ESET 2239: Pumps, Valves, and Fluid Flow	5			
ESET 2239L: Pumps, Valves, and Fluid Flow Lab	4			
ESET 2242: Practical Process Measurements and Control	2			
ESET 2243: Hydraulic and Pneumatic Power	2			
ESET 2243L: Hydraulic and Pneumatic Power Lab	2	MAP Credit Summary		CR
ESET 2244: Rotating Equipment and Millwright Maintenance	4	Major		64-65
ESET 2244L: Rotating Equipment and Millwright Maintenance Lab	3	General Education		16-18
		Upper Division Free Electives to reach 36 credits		0
ESET 2245: Industrial Thermal Systems	2	Free Electives to reach 120 credits		0
ESET 2245L: Industrial Thermal Systems Lab	1	TOTAL		80-83
ESET 2246: Materials and Metallurgy	2			
TGE 1159: Internship Strategies	1			
ENGL 1101 OR ENGL 1102 (Counted in GE Obj. 1)				
MATH 1143 OR 1147 OR 1153 OR 1160 OR 1170 (Counted in GE Obj. 3)		Graduation Requirement Minimum Credit Checklist		Confirmed
CHEM 1100 OR PHYS 1101/L (Counted in GE Obj. 5)		Minimum 36 cr. General Education Objectives (15 cr. AAS)		X
		Minimum 15 cr. Upper Division in Major (0 cr. Associate)		
		Minimum 36 cr. Upper Division Overall (0 cr. Associate)		
		Minimum of 120 cr. Total (60 cr. Associate)		X
Advising Notes		MAP Completion Status (for internal use only)		
			Date	
		CAA or COT:	EA 6/18/2024	
		Complete College American Momentum Year		
		Math and English course in first year-Specific GE MATH course identified		
		9 credits in the Major area in first year		
		15 credits each semester (or 30 in academic year)		
		Milestone courses		