

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-Requirement
<b>Semester One</b>						
TGE 0159: Internship Strategies	1	D-		F, S		
ESET 0140: Applied Technical Intermediate Algebra	5	C-		F, D		C- in MATH 0025, a Math ACT score of 18 or higher, an SAT score of 460 or higher, an ALEKS score of 30 or higher, or 35 on the Algebra section (MAPL 2).
ESET 0100: Engineering Technology Orientation	1	C-		F, S, D		ESET 0100L
ESET 0100L: Engineering Technology Orientation Laboratory	1	C-		F, S, D		ESET 0100
ESET 0121: Basic Electricity and Electronics	4	C-		F, D		ESET 0121L
ESET 0121L: Basic Electricity and Electronics Lab	3	C-		F, D		ESET 0121
ESET 0123: Mechanical Power Transmission	2	C-		S, D	Permission of instructor	ESET 0123L
ESET 0123L: Mechanical Power Transmission Lab	1	C-		S, D	Permission of instructor	ESET 0123
ESET 0125: Introduction to Structural Welding	1	C-		F, D		
<b>Total</b>	<b>19</b>					
<b>Semester Two</b>						
GE Objective 5: PHYS 1101/L or CHEM 1100	4	D-	GE	F, S		
GE Objective 2: COMM 1101	3	D-	GE	F, S		
GE Objective 3: MATH 1153 or MATH 1160 or MATH 1170	3-4	D-	GE	F, S, Su		
ESET 0122: Electrical Systems and Motor Control Theory	3	C-		S, D	ESET 0121, 0121L	ESET 0122L
ESET 0122L: Electrical Systems and Motor Control Lab	1	C-		S, D	ESET 0121, 0121L	ESET 0122
ESET 0127: Mechanical Power Transmission II	2	C-		S, D	ESET 0121, 0121L, 0123, 0123L, 0140, or permission	ESET 0127L
ESET 0127L: Mechanical Power Transmission II Lab	2	C-		S, D	ESET 0121, 0121L	ESET 0127
ESET 0126: Intro to Mechanical Drafting and Computer Aided Design	1	C-		S, D		
<b>Total</b>	<b>19-20</b>					
<b>Semester Three</b>						
GE Objective 6: Social & Behavioral Ways of Knowing	3	D-	GE	F, S		
ESET 0220: Thermal Cycles and Heat Transfer	2	C-		F, D	ESET 0102 or 0122, or permission	
ESET 0239: Pumps, Valves, and Fluid Flow	5	C-		F, D	ESET 0127, 0127L	ESET 0239L
ESET 0239L: Pumps, Valves, and Fluid Flow Lab	4	C-		F, D	ESET 0127, 0127L	ESET 0239
ESET 0242: Practical Process Measurements and Control	2	C-		F, D	ESET 0122 or permission	
ESET 0245: Fundamentals of Heat Exchangers	2	C-		S, D	ESET 0140 or MATH 1108 or permission	
<b>Total</b>	<b>18</b>					
<b>Semester Four</b>						
GE Objective 1: ENGL 1101 English Composition	3	D-	GE	F, S		
ESET 0221: Boiler Reactor and Turbine Principles	2	C-		S, D	ESET 0102 or 0122, or permission	
ESET 0243: Hydraulic and Pneumatic Power	2	C-		S, D	ESET 0127, 0127L	ESET 0243L
ESET 0243L: Hydraulic and Pneumatic Power Laboratory	2	C-		S, D	ESET 0127, 0127L	ESET 0243
ESET 0244: Rotating Equipment and Millwright Maintenance	4	C-		S, D	ESET 0127	ESET 0244L
ESET 0244L: Rotating Equipment and Millwright Maintenance Laboratory	3	C-		S, D	ESET 0127	ESET 0244
ESET 0246: Materials and Metallurgy	2	C-		S, D		
<b>Total</b>	<b>18</b>					

\*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.)

2021-2022 Major Requirements		CR	GENERAL EDUCATION OBJECTIVES Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9	16 cr. min
<b>MAJOR REQUIREMENTS</b>		<b>58</b>	1. Written English (6 cr. min) ENGL 1101	3
ESET 0100: Engineering Technology Orientation		1		
ESET 0100L: Engineering Technology Orientation Laboratory		1	2. Spoken English (3 cr. min) COMM 1101	3
ESET 0121: Basic Electricity and Electronics		4	3. Mathematics (3 cr. min) Recommended by Dept	
ESET 0121L: Basic Electricity and Electronics Laboratory		3	4. Humanities, Fine Arts, Foreign Lang.	
ESET 0122: Electrical Systems and Motor Control Theory		3		
ESET 0122L: Electrical Systems and Motor Control Laboratory		1		
ESET 0123: Mechanical Power Transmission		2	5. Natural Sciences (1 lectures, 1 lab; 4 cr. min)	
ESET 0123L: Mechanical Power Transmission Laboratory		1	PHYS 1101/L	4
ESET 0125: Introduction to Structural Welding		1		
ESET 0126: Intro to Mechanical Drafting and Computer Aided Design		1		
ESET 0127: Mechanical Power Transmission		2	6. Behavioral and Social Science (1 course; 3 cr. min)	
ESET 0127L: Mechanical Power Transmission Laboratory		2		3
ESET 0140: Applied Technical Intermediate Algebra		5		
ESET 0220: Thermal Cycles and Heat Transfer		2	One Course from EITHER Objective 7 OR 8	
ESET 0221: Boiler Reactor and Turbine Principles		2	7. Critical Thinking	
ESET 0239: Pumps, Valves, and Fluid Flow		5	8. Information Literacy	
ESET 0239L: Pumps, Valves, and Fluid Flow Lab		4	9. Cultural Diversity	
ESET 0242: Process Measurements for Mechanical Engineering		2		
ESET 0243: Fluid and Pneumatic Power		2	General Education Elective to reach 36 cr. min. (if necessary)	
ESET 0243L: Fluid and Pneumatic Power Laboratory		2		3
ESET 0244: Rotating Equipment Maintenance		4	<b>Total GE</b>	<b>16</b>
ESET 0244L: Rotating Equipment Maintenance Laboratory		3	Undergraduate Catalog and GE Objectives by <a href="http://coursecat.isu.edu/undergraduate/programs/">Catalog Year</a>	
ESET 0245: Fundamentals of Heat Exchangers		2	<a href="http://coursecat.isu.edu/undergraduate/programs/">http://coursecat.isu.edu/undergraduate/programs/</a>	
ESET 0246: Materials and Metallurgy		2		
TGE 0159: Internship Strategies		1		
MATH 1153, MATH 1160, or MATH 1170 (counted in GE Obj. 3)			<b>MAP Credit Summary</b>	<b>CR</b>
PHYS 1101/L (counted in GE Obj. 5)			Major	58
			General Education	16
			Upper Division Free Electives to reach 36 credits	0
			Free Electives to reach 120 credits	0
			<b>TOTAL</b>	<b>74</b>
			<b>Graduation Requirement Minimum Credit Checklist</b>	<b>Confirmed</b>
			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
<b>Advising Notes</b>		<b>MAP Completion Status (for internal use only)</b>		
			Date	
		CAA or COT:	TIM 10/21/2019	
		<b>Complete College American Momentum Year</b>		
		<b>Math and English course in first year-Specific GE MATH course identified 9 credits in the Major area in first year</b>		
		<b>15 credits each semester (or 30 in academic year)</b>		
		<b>Milestone courses</b>		