



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		
GE Objective 2: COMM 1101 Fundamentals of Oral Communication	3	C-	GE	F, S		
ESET 1100: Engineering Technology Orientation	1	C-		F, S, D		
ESET 1100L: Intro to an Industrial Environment Lab	1	C-		F, S, D	Minimum score of 30 on ALEKS or equivalent	
ESET 1140: Applied Technical Intermediate Algebra (Recommended) OR MATH 1147: Precalculus	5	C-		F, S, D	Appropriate placement score	
ESET 1152: Nuclear Careers and Information	1	C-		F, S		
ESET 1153: Radiological Control Fundamentals	3	C-		F, D		
Total	17					
Semester Two						
GE Objective 1: ENGL 1102: Writing and Rhetoric II	3	C-	GE	F, S, Su	ENGL 1101 or ENGL 1101P	
GE Objective 3: MATH 1143 or 1147 or 1153 or 1160 or 1170 or MGT 2216	3-5	C-	GE		Appropriate placement score	
ESET 1121: Basic Electricity and Electronics	4	C-		F, S		ESET 1121L
ESET 1121L: Basic Electricity and Electronics Laboratory	3	C-		F, S		ESET 1121
ESET 1130: Initial Operator Training and Student Operations	4	C-		S, D	MATH 1143 OR ALEKS score of 60 or equivalent	
Total	17-19					
Semester Three						
GE Objective 5: CHEM 1101 or CHEM 1111/L	3-5	C-	GE	F, S	Appropriate placement score	
ESET 1122: Electrical Systems and Motor Control Theory	3	C-		F, S, D	ESET 1121/L or instructor permission	ESET 1122L
ESET 1122L: Electrical Systems and Motor Control Theory Lab	1	C-		F, S, D	ESET 1121/L or permission	ESET 1122
ESET 2220: Thermal Cycles and Heat Transfer	2	C-		F, D		
ESET 2239: Pumps, Valves, and Fluid Flow	5	C-		F, D	ESET 1127/L or ESET 1130 or ESET 1151/L	ESET 2239/L
ESET 2239L: Pumps, Valves, and Fluid Flow Lab	4	C-		F, D	ESET 1127/L or ESET 1130 or ESET 1151/L	ESET 2239
Total	18-20					
Semester Four						
GE Objective 4: TGE 1257 Applied Ethics in Technology	3	C-	GE	D		
GE Objective 5: PHYS 1101 Elements of Physics	3	C-	GE	F, S		PHYS 1101L
GE Objective 5: PHYS 1101L Elements of Physics Lab	1	C-	GE	F, S		PHYS 1101
GE Objective 6: TGE 1150 (Recommended)	3	C-	GE	D		
ESET 1152: Nuclear Careers and Information	1	C-		F, S	2 credits required for graduation (take 2 times, 1 credit each 1 st and 4 th Semester)	
ESET 2221: Nuclear Steam Supply Systems	2	C-		S, D	ESET 1102 or 1122 or 2220 or permission	
ESET 2249: Reactor Plant Materials	3	C-		S, D	CHEM 1101 or 1111, ESET 2239, AND ESET 1151 or 1130, or permission	
ESET 2260: Nuclear Instrumentation	2	C-		S, D	ESET 1130	
Total	18					
Semester Five						
ESET 2242: Practical Process Measurements and Control	2	C-		F, D	ESET 1122 or permission	
ESET 2248: Power Plant Documentation and Procedures	2	C-		F, D	ESET 1100L AND ESET 1151 or 1130, or permission	
ESET 2251: Reactor Theory Safety and Design	4	C-		F, D	ESET 1130, 2221, 2239, 2248, 2249, 2261, or permission	
ESET 2279: Conduct of Operations	4	C-		F, S, D	ESET 1151/L or ESET 1130 or permission	
ESET 2280: Capstone and Case Studies in Nuclear Engineering Technology	2	C-		F, S, D	ESET 1151/L or ESET 1130, ESET 1153, 2220, and 2249; or permission	ESET 2248, 2279
Total	14					

*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		GENERAL EDUCATION OBJECTIVES		25 cr. Min
		CR	Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9	
MAJOR REQUIREMENTS		59	1. Written English (6 cr. min) ENGL 1101	3
ESET 1100: Engineering Technology Orientation	1		ENGL 1102	3
ESET 1100L: Introduction to an Industrial Environment Lab	1		2. Spoken English (3 cr. min) COMM 1101	3
ESET 1121: Basic Electricity and Electronics	4		3. Mathematics MATH 1143, 1147, 1153, 1160, 1170, or MGT 2216	3-5
ESET 1121L: Basic Electricity and Electronics Lab	3		4. Humanities, Fine Arts, Foreign Lang. (1 courses; 3 cr. min)	
ESET 1122: Electrical Systems and Motor Control Theory	3		TGE 1257	3
ESET 1122L: Electrical Systems and Motor Control Theory Laboratory	1			
ESET 1130: Initial Operator Training and Student Operations	4		5. Natural Sciences (2 lectures-different course prefixes, 1 lab; 7 cr. min)	
ESET 1140: Applied Technical Intermediate Algebra	5		PHYS 1101/L	4
ESET 1152: Nuclear Careers and Information	2		CHEM 1101 or CHEM 1111/L	3-5
ESET 1153: Radiological Control Fundamentals	3			
ESET 2220: Thermal Cycles and Heat Transfer	2		6. Behavioral and Social Science (1 course; 3 cr. min)	
ESET 2221: Nuclear Steam Supply Systems	2		TGE 1150 (Recommended)	3
ESET 2239: Pumps, Valves, and Fluid Flow	5			
ESET 2239L: Pumps, Valves, and Fluid Flow Lab	4		One Course from EITHER Objective 7 OR 8	
ESET 2242: Practical Process Measurement and Control	2		7. Critical Thinking	
ESET 2248: Power Plant Documentation and Procedures	2		8. Information Literacy	
ESET 2249: Reactor Plant Materials	3		9. Cultural Diversity	
ESET 2251: Reactor Theory Safety and Design	4			
ESET 2260: Nuclear Instrumentation	2		General Education Elective to reach 36 cr. min. (if necessary)	
ESET 2279: Conduct of Operations	4			
ESET 2280: Capstone and Case Studies in Nuclear Engineering Tech	2		Total GE	25-29
		Undergraduate Catalog and GE Objectives by Catalog Year http://coursecat.isu.edu/undergraduate/programs/		
		MAP Credit Summary		CR
		Major		59
		General Education		25-29
		Upper Division Free Electives to reach 36 credits		0
		Free Electives to reach 120 credits		0
		TOTAL		84-88
		Graduation Requirement Minimum Credit Checklist		Confirmed
		Minimum 36 cr. General Education Objectives (15 cr. AAS)		X
		Minimum 15 cr. Upper Division in Major (0 cr. Associate)		X
		Minimum 36 cr. Upper Division Overall (0 cr. Associate)		X
		Minimum of 120 cr. Total (60 cr. Associate)		X
Advising Notes		MAP Completion Status (for internal use only)		
				<i>Date</i>
		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		