

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		
ESET 1140: Applied Technical Intermediate Algebra (Recommended) OR MATH 1147: Precalculus	5	C-		F, S, D		
ESET 1152: Nuclear Careers and Information	1	C-		F, S	Minimum ALEKS score of 30 or equivalent	
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, or placement score	
GE Objective 3: MATH 1143 or 1147 or 1153 or 1160 or 1170 or MGT 2216	3-5	C-	GE	F, S, Su	Appropriate placement score	
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 1151: Nuclear Industry Fundamental Concepts	3	C-		S, D		ESET 1151L
ESET 1151L: Nuclear Industry Fundamental Concepts Lab	1	C-		S, D		ESET 1151
Total	17-19					
Semester Three						
GE Objective 5: CHEM 1101 OR CHEM 1111/L	3-5	C-	GE	F,S,Su	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	1	C-		F, S, D	ESET 1121/L or instructor 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, 1151/L, OR 1130	ESET 2239L
ESET 2239L: Pumps, Valves, and Fluid Flow Lab	4	C-		F, D	ESET 1127/L, 1151/L, OR 1130	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 AND PHYS 1101L: Elements of Physics Lab	4	C-	GE	F, S	MATH 1108 or equivalent	
GE Objective 6: TGE 1150 (Recommended)	3	C-	GE	F, S, Su		
ESET 1152: Nuclear Careers and Information	1	C-		F, S, D	2 credits required for graduation (take 2 times)	
ESET 2221: Nuclear Steam Supply Systems	2	C-		S, D	ESET 1102, 1122, 2220, or permission	
ESET 2249: Reactor Plant Materials	3	C-		S, D	CHEM 1101 or 1111, ESET 2239, AND 1151 or 1130, or permission	
ESET 2250: Radiation Detection and Protection	2	C-		F, S, D	ESET 1151/L, 1153	
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 1100 AND ESET 1151 or 1130 or permission	
ESET 2261: Glovebox and Manipulator Operations Lab	4	C-		F, D	ESET 1153 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 1130, 1153, 2220, 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 0140: Applied Technical Intermediate Algebra	5		5. Natural Sciences (2 lectures-different course prefixes, 1 lab; 7 cr. min)	
ESET 1151: Nuclear Industry Fundamental Concepts	3		PHYS 1101/L	4
ESET 1151L: Nuclear Industry Fundamental Concepts Lab	1		CHEM 1101 or CHEM 1111/L	3-5
ESET 1152: Nuclear Careers and Information	2			
ESET 1153: Radiological Control Fundamentals	3		6. Behavioral and Social Science (1 course; 3 cr. min)	
ESET 2220: Thermal Cycles and Heat Transfer	2		TGE 1150 (Recommended)	3
ESET 2221: Nuclear Steam Supply Systems	2			
ESET 2239: Pumps, Valves, and Fluid Flow	5		One Course from EITHER Objective 7 OR 8	
ESET 2239L: Pumps, Valves, and Fluid Flow Lab	4		7. Critical Thinking	
ESET 2242: Practical Process Measurements and Control	2		8. Information Literacy	
ESET 2248: Power Plant Documentation and Procedures	2		9. Cultural Diversity	
ESET 2249: Reactor Plant Materials	3			
ESET 2250: Radiation Detection and Protection	2		General Education Elective to reach 36 cr. min. (if necessary)	
ESET 2261: Glovebox and Manipulator Operations Lab	4			
ESET 2279: Conduct of Operations	4		Total GE	25-29
ESET 2280: Capstone and Case Studies in Nuclear Engineering Tech	2		Undergraduate Catalog and GE Objectives by Catalog Year http://coursecat.isu.edu/undergraduate/programs/	
			MAP Credit Summary	CR
			Major	59
			General Education	25-28
			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)		
			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		