



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
<b>Semester One</b>						
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 ( <b>Recommended</b> ); or MATH 1147: College Algebra and Trigonometry	5	C-		F, S, D	C- in MATH 0025, a Math ACT score of 18 or higher, an SAT score of 460 or higher, or an ALEKS score of 30 or higher	
ESET 1152: Nuclear Careers and Information	1	C-		F, S	2 credits required for graduation (take 2 times, 1 credit each 1 <sup>st</sup> and 4 <sup>th</sup> Semester)	
ESET 1153: Radiological Control Fundamentals	3	C-		F, D		
<b>Total</b>	<b>15-17</b>					
<b>Semester Two</b>						
GE Objective 1: ENGL 1102: Writing and Rhetoric II	3	C-	GE	F, S, Su	ENGL 1101 or ENGL 1101P	
GE Objective 3: MATH 1153 ( <b>Recommended</b> ) or 1160 or 1170 <b>*See Advisor*</b>	3-5	C-	GE	F, S, Su		
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 1151: Nuclear Industry Fundamental Concepts	3	C-		S, D		ESET 1151L
ESET 1151L: Nuclear Industry Fundamental Concepts Laboratory	1	C-		S, D		ESET 1151
<b>Total</b>	<b>17-18</b>					
<b>Semester Three</b>						
GE Objective 5: CHEM 1101 or CHEM 1111/L	3-5	C-	GE	F,S,Su		
ESET 1122: Electrical Systems and Motor Control	3	C-		F, S, D	ESET 1121, ESET 1121L	ESET 1122L
ESET 1122L: Electrical Systems and Motor Control Laboratory	1	C-		F, S, D	ESET 1121, ESET 1121L	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 2239L
ESET 2239L: Pumps, Valves, and Fluid Flow Lab	4	C-		F, D	ESET 1127/L; or ESET 1130; or ESET 1151/L	ESET 2239
<b>Total</b>	<b>18-20</b>					
<b>Semester Four</b>						
GE Objective 4: TGE 1257	3	C-	GE	F, S, D		
GE Objective 5: PHYS 1101/1101L	4	C-	GE	F, S		
GE Objective 6 TGE 1150 ( <b>Recommended</b> )	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, 1 credit each 1 <sup>st</sup> and 4 <sup>th</sup> Semester)	
ESET 2221: Nuclear Steam Supply Systems	2	C-		S, D	ESET 1102, ESET 1122, ESET 2220, or permission	
ESET 2249: Reactor Plant Materials	3	C-		S, D	CHEM 1101 or CHEM 1111, ESET 2239; and ESET 1151 or ESET 1130 or permission	
ESET 2250: Radiation Detection and Protection	2	C-		F, S, D	ESET 1151/L and ESET 1153	
<b>Total</b>	<b>18</b>					
<b>Semester Five</b>						
ESET 2242: Practical Process Measurements and Control	2	C-		F, D	ESET 1122 or permission of instructor	
ESET 2248: Power Plant Documentation and Procedures	2	C-		F, D	ESET 1100L and ESET 1130 or ESET 1151; 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, 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, 2249; or permission	ESET 2248, ESET 2279
<b>Total</b>	<b>14</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.)

2023-2024 Major Requirements	CR	GENERAL EDUCATION OBJECTIVES Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9	25 cr. Min
<b>MAJOR REQUIREMENTS</b>	<b>59</b>	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 (3 cr. min) ESET 1140 (recommended) or MATH 1147	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	<b>Total GE</b>	<b>25-29</b>
ESET 2280: Capstone and Case Studies in Nuclear Engineering Tech	2	Undergraduate Catalog and GE Objectives by <a href="http://coursecat.isu.edu/undergraduate/programs/">Catalog Year</a>	
		<a href="http://coursecat.isu.edu/undergraduate/programs/">http://coursecat.isu.edu/undergraduate/programs/</a>	
		<b>MAP Credit Summary</b>	<b>CR</b>
		Major	59
		General Education	25-28
		Upper Division Free Electives to reach 36 credits	0
		Free Electives to reach 120 credits	0
		<b>TOTAL</b>	<b>84-88</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>	
			<i>Date</i>
		CAA or COT:	PJ 06/01/2023
		<b>Complete College American Momentum Year</b>	
		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	