



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						
ESET 1140: Applied Technical Intermediate Algebra	5	C-		F, S, D	Minimum score of ALEKS 30 or equivalent	
ESET 1181: Introduction to Cyber-Physical Systems	3	C-		F, D		
ESET 1182: Information Technology Fundamentals	3	C-				
Total	11					
Semester Two						
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
Total	7					
Semester Three						
GE Objective 1: ENGL 1101 Writing and Rhetoric I OR ENGL 1102 Writing and Rhetoric II	3	D-	GE	F, S, Su	Appropriate placement score	
GE Objective 5: PHYS 1101/L Elements of Physics and Lab (recommended) OR CHEM 1100 Concepts of Chemistry OR CHEM 1111/L General Chemistry I and Lab OR CHEM 1112/L General Chemistry II and Lab OR PHYS 1100 Essentials of Physics OR PHYS 1111/1113 General Physics I and Lab OR PHYS 1112/1114 General Physics II and Lab	4-5	D-	GE	F, S	Appropriate placement score	
ESET 1162: Industrial Safety and Regulations	2	C-		F, S, D		
Total	9-10					
Semester Four						
GE Objective 3: MGT 2216 Business Statistics (recommended) OR MATH 1143 Precalculus I Algebra OR MATH 1147 Precalculus OR MATH 1153 Statistical Reasoning OR MATH 1160 Survey of Calculus OR MATH 1170 Calculus I	3-5	D-	GE		Appropriate placement score	
ESET 1120: Introduction to Energy Systems	2	C-		F, S, D		ESET 1120L
ESET 1120L: Introduction to Energy Systems Lab	1	C-		F, S, D		ESET 1120
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	ESET 1122
Total	10-12					
Semester Five						
ESET 2205: Fundamentals of Control Logic	3	C-		F, S, D	Instructor approval	
ESET 2282: Introduction to Networking	3	C-		F		
INFO 4411: Intermediate Information Assurance	3	C-		D	INFO 1150 or CS 1137 or INFO 3310	
Total	9					
Semester Six						
Ge Objective 2: COMM 1101 Fundamentals of Oral Comm	3	D-	GE	F, S		
GE Objective 6: Any	3	D-	GE			
CYBR 4486: Network Security for Industrial Environments	3	C-		S, D	ESET 2282 and CYBR 3383 OR instructor approval	
Total	9					
Semester Seven						
CYBR 3383: Security Design for Cyber-Physical Systems	3	C-		F, D	ESET 1181, 2223, 2227, 2282, or instructor approval	ESET 1181, 2223, 2227, 2282, or instructor approval
CYBR 3384: Risk Management for Cyber-Physical Systems	3	C-		F, D	ESET 1181, 2223, 2227, 2282, 3383, or instructor approval	ESET 1181, 2223, 2227, 2282, 3383, or instructor approval
ESET 2242: Practical Process Measurements and Control	2	C-		F, D	ESET 1122 or instructor approval	
Total	8					
Semester Eight						
CYBR 4481: Defending Critical Infrastructure and Cyber Physical Systems	3	C-		S, D	ESET 2282, CYBR 3383, 3384, or instructor approval	
CYBR 4487: Professional Development and Certification	3	C-		S, D	CYBR 3383, 3384, 4486, 4481	CYBR 3383, 3384, 4486, 4481
Total	6					

*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.)

2025-2026 Major Requirements	CR	GENERAL EDUCATION OBJECTIVES Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9	15 cr. min
MAJOR REQUIREMENTS	53	1. Written English ENGL 1101 (recommended)	3
CYBR 3383: Security Design for Cyber-Physical Systems	3		
CYBR 3384: Risk Management for Cyber-Physical Systems	3	2. Spoken English COMM 1101	3
CYBR 4481: Defending Critical Infrastructure and Cyber Physical Systems	3	3. Mathematics MGT 2216 (recommended)	3-5
CYBR 4486: Network Security for Industrial Environments	3	4. Humanities, Fine Arts, Foreign Lang.	
CYBR 4487: Professional Development and Certification	3		
ESET 1120: Introduction to Energy Systems	2	5. Natural Sciences	
ESET 1120L: Introduction to Energy Systems Laboratory	1	PHYS 1101/L: Elements of Physics and Lab (recommended)	4-5
ESET 1121: Basic Electricity and Electronics	4		
ESET 1121L: Basic Electricity and Electronics Laboratory	3		
ESET 1122: Electrical Systems and Motor Control Theory	3	6. Behavioral and Social Science	
ESET 1122L: Electrical Systems and Motor Control Theory Lab	1	Any	3
ESET 1140: Applied Technical Intermediate Algebra	5		
ESET 1162: Industrial Safety and Regulations	2	One Course from EITHER Objective 7 OR 8	
ESET 1181: Introduction to Cyber-Physical Systems	3	7. Critical Thinking	
ESET 1182: Information Technology Fundamentals	3	8. Information Literacy	
ESET 2205: Fundamentals of Control Logic	3	9. Cultural Diversity	
ESET 2242: Practical Process Measurements and Control	2		
ESET 2282: Introduction to Networking	3	General Education Elective to reach 36 cr. min.	
INFO 4411: Intermediate Information Assurance	3		
		Total GE	16-19
ENGL 1101: Writing and Rhetoric I OR ENGL 1102: Writing and Rhetoric II (counted in GE Obj. 1)		Undergraduate Catalog and GE Objectives by Catalog Year http://coursecat.isu.edu/undergraduate/programs/	
MATH 1143: Precalculus I: Algebra OR MATH 1147: Precalculus OR MATH 1153: Statistical Reasoning OR MATH 1160: Survey of Calculus OR MATH 1170: Calculus I OR MGT 2216: Business Statistics (counted in GE Obj. 3)			
		MAP Credit Summary	CR
		Major	53
		General Education	16-19
		Upper Division Free Electives to reach 36 credits	0
		Free Electives to reach 120 credits	0
		TOTAL	69-72
CHEM 1100: Concepts of Chemistry OR CHEM 1111/L: General Chemistry I and Lab OR CHEM 1112/L: General Chemistry II and Lab OR PHYS 1100: Essentials of Physics OR PHYS 1101/L: Elements of Physics and Lab OR PHYS 1111/1113: General Physics I and Lab OR PHYS 1112/1114: General Physics II and Lab (counted in GE Obj. 5)			
		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:	GR 07/01/2025
		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	