



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-		F, S, Su	Appropriate placement score	
ESET 1121: Basic Electricity and Electronics	4	C-		S, F		ESET 1121L
ESET 1121L: Basic Electricity and Electronics Lab	3	C-		S, F		ESET 1121
ESET 1140: Applied Technical Intermediate Algebra	5	C-		F, S, D	Minimum ALEKS score of 30 or equivalent	
ESET 1162: Industrial Safety and Regulations	2	C-		F, S, D		
ESET 1181: Introduction to Cyber-Physical Systems	3	C-		F, D		
Total	20					
Semester Two						
GE Objective 3: MATH 1143, 1147, 1153, 1160, 1170, or MGT 2216	3	C-	GE	F, S		
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 or instructor approval	ESET 1122L
ESET 1122L: Electrical Systems and Motor Control Theory Lab	1	C-		F, S, D	ESET 1121/L or instructor approval	ESET 1122
ESET 1182: Information Technology Fundamentals	3	C-		F, S		
PHYS 1101: Elements of Physics	3	C-	GE	F, S	MATH 1108 or equivalent	PHYS 1101L
PHYS 1101L: Elements of Physics Lab	1	C-	GE	F, S		PHYS 1101
Total	17					
Semester Three						
GE Objective 6: TGE 1150 Applied Social Sciences in the Workplace (Recommended)	3	C-	GE	D		
ESET 2205: Fundamentals of Control Logic	3	C-		F, S, D	Instructor approval	
ESET 2242: Practical Process Measurements and Control	2	C-		F, D	ESET 1122 or instructor approval	
ESET 2282: Introduction to Networking	3	C-		F		
CYBR 3383: Security Design for Cyber-Physical Systems	3	C-		F, D	ESET 1181, 2223, 2227, or instructor approval	ESET 2282
CYBR 3384: Risk Management for Cyber-Physical Systems	3	C-		F, D	ESET 1181, 2223, 2227	ESET 2282, CYBR 3383
Total	17					
Semester Four						
GE Objective 2: COMM 1101 Fundamentals of Oral Comm	3	C-	GE	F, S		
CYBR 4481: Defending Critical Infrastructure and Cyber Physical Systems	3	C-		S, D	ESET 2282, CYBR 3383, 3384, or instructor approval	
CYBR 4486: Network Security for Industrial Environments	3	C-		S, D	ESET 2282, CYBR 3383, or instructor approval	
CYBR 4487: Professional Development and Certification	3	C-		S, D	CYBR 3383, 3384	CYBR 4486, 4481
INFO 4411: Intermediate Information Assurance	3	C-		D	INFO 1150 or CS 1337 or INFO 3310 or instructor approval	
Total	15					

*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	16 cr. min
MAJOR REQUIREMENTS	53		1. Written English (6 cr. min) ENGL 1101	3
ESET 1121: Basic Electricity and Electronics	4			
ESET 1121L: Basic Electricity and Electronics Lab	3		2. Spoken English (3 cr. min) COMM 1101	3
ESET 1140: Applied Technical Immediate Algebra	5		3. Mathematics (3 cr. min)	3-5
ESET 1162: Industrial Safety and Regulations	2		4. Humanities, Fine Arts, Foreign Lang.	
ESET 1181: Introduction to Cyber-Physical Systems	3			
ESET 1182: Information Technology Fundamentals	3		5. Natural Sciences (1 lecture, 1 lab; 4 cr. Min)	
ESET 2282: Introduction to Networking	3		PHYS 1101: Elements of Physics (Recommended)	3
CYBR 3383: Security Design for Cyber-Security Systems	3		PHYS 1101L: Elements of Physics Lab (Recommended)	1
CYBR 3384: Risk Management for Cyber-Security Systems	3			
CYBR 4481: Defending Critical Infrastructure and Cyber Physical Systems	3			
CYBR 4486: Network Security for Industrial Environments	3		6. Behavioral and Social Science (1 course – 3 cr. Min)	
CYBR 4487: Professional Development and Certification	3		TGE 1150: Applied Social Sciences in the Workplace (Recommended)	3
INFO 4411: Intermediate Information Assurance	3		One Course from EITHER Objective 7 OR 8 (1course; 3 cr. Min)	
			7. Critical Thinking	
Choose a minimum of 12 credits from the following:	12		8. Information Literacy	
ESET 1120: Introduction to Energy Systems	2		9. Cultural Diversity (1 course; 3 cr. Min)	
ESET 1120L: Introduction to Energy Systems Lab	1			
ESET 1122: Electrical Systems and Motor Control Theory	3		General Education Elective to reach 36 cr. Min. (if necessary)	
ESET 1122L: Electrical Systems and Moto Control Theory Lab	1			
ESET 2205: Fundamentals of Control Logic	3		Total GE	16-19
ESET 2220: Thermal Cycles and Heat Transfer	2		Undergraduate Catalog and GE Objectives by Catalog Year	
ESET 2221: Nuclear Steam Supply Systems	2		http://coursecat.isu.edu/undergraduate/programs/	
ESET 2222: Process Control Theory	3			
ESET 2226: Process Control Devices Lab	1			
ESET 2242: Practical Process Measurements and Control	2			
ESET 2251: Reactor Theory Safety and Design	4		MAP Credit Summary	CR
ESET 2292: Electrical Engineering Technology I	8		Major	53
ESET 2292L: Electrical Engineering Technology I Lab	5		General Education	16-19
INST 2281: Electrical Automation Theory	8		Upper Division Free Electives to reach 36 credits	0
INST 2282: Electrical Automation Lab	5		Free Electives to reach 120 credits	0
			TOTAL	69-72
			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)	
			Minimum 36 cr. Upper Division Overall (0 cr. Associate)	
			Minimum of 120 cr. Total (60 cr. Associate)	X
Advising Notes			MAP Completion Status (for internal use only)	
			Date	
			CAA or COT:	PJ 6/1/2023
			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	