

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 1121: Basic Electricity and Electronics	4	C-		F, S	Minimum score of ALEKS 30 or equivalent	ESET 1121L
ESET 1121L: Basic Electricity and Electronics Lab	3	C-		F, S		ESET 1121
ESET 1140: Applied Technical Intermediate Algebra	5	C-		F, S, D	Minimum score of ALEKS 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		
ESET 1182: Information Technology Fundamentals	3	C-				
Total	20					
Semester Two						
GE Objective 3: MGT 2216 Business Statistics OR MATH 1143 Precalculus I 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	
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		Appropriate placement score	
*ESET 1120: Introduction to Energy Systems (recommended)	2	C-		F, S, D		ESET 1120L
*ESET 1120L: Introduction to Energy Systems Lab (recommended)	1	C-		F, S, D		ESET 1120
*ESET 1122: Electrical Systems and Motor Control Theory (recommended)	3	C-		F, S, D	ESET 1121/L or instructor approval	ESET 1122L
*ESET 1122L: Electrical Systems and Motor Control Theory Lab (recommended)	1	C-		F, S, D	ESET 1121/L or instructor approval	ESET 1122
Total	14-17					
Semester Three						
GE Objective 1: ENGL 1101 Writing and Rhetoric I (recommended) OR ENGL 1102 Writing and Rhetoric II	3	D-	GE	F, S, Su	Appropriate placement score	
CYBR 3383: Security Design for Cyber-Physical Systems	3	C-		F, D	ESET 1181, 2223, 2227, 2282, 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, or instructor approval	ESET 1181 2223, 2227, 2282, or instructor approval
*ESET 2205: Fundamentals of Control Logic (recommended)	3	C-		F, S, D	Instructor approval	
*ESET 2242: Practical Process Measurements and Control (recommended)	2	C-		F, D	ESET 1122 or instructor approval	
ESET 2282: Introduction to Networking	3	C-		F		
Total	17					
Semester Four						
GE Objective 2: COMM 1101 Fundamentals of Oral Comm	3	D-	GE	F, S		
GE Objective 6: ECON 2201 Principles of Macroeconomics (recommended)	3	D-	GE	F, S, Su		
CYBR 4481: Defending Critical Infrastructure and Cyber Physical Systems	3	C-		S, D	CYBR 3383, 3384, ESET 2282, or instructor approval	
CYBR 4486: Network Security for Industrial Environments	3	C-		S, D	CYBR 3383, ESET 2282, or instructor approval	
CYBR 4487: Professional Development and Certification	3	C-		S, D	CYBR 3383, 3384, 4481, 4486	CYBR 3384, 4481, 4486
INFO 4411: Intermediate Information Assurance	3	C-		D	INFO 1150 or INFO 3310 or CS 1337 or instructor approval	
Total	18					
*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 or ENGL 1102	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 1121: Basic Electricity and Electronics	4		5. Natural Sciences	
ESET 1121L: Basic Electricity and Electronics Laboratory	3		PHYS 1101/L: Elements of Physics and Lab (recommended)	4-5
ESET 1140: Applied Technical Intermediate Algebra	5			
ESET 1162: Industrial Safety and Regulations	2			
ESET 1181: Introduction to Cyber-Physical Systems	3		6. Behavioral and Social Science	
ESET 1182: Information Technology Fundamentals	3		ECON 2201: Principles of Macroeconomics (recommended)	3
ESET 2282: Introduction to Networking	3			
INFO 4411: Intermediate Information Assurance	3		One Course from EITHER Objective 7 OR 8	
			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	
ESET 1120L: Introduction to Energy Systems Laboratory	1			
ESET 1122: Electrical Systems and Motor Control Theory	3		General Education Elective to reach 36 cr. min.	
ESET 1122L: Electrical Systems and Motor 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			
ESET 2222: Process Control Theory	3			
ESET 2226: Process Control Devices Laboratory	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 Laboratory	5		General Education	16-19
INST 2281: Electrical Automation Theory	8		Upper Division Free Electives to reach 36 credits	0
INST 2282: Electrical Automation Laboratory	5		Free Electives to reach 120 credits	0
			TOTAL	69-72
ENGL 1101 OR ENGL 1102 (counted in Gen Obj. 1)				
MATH 1143 OR MATH 1147 OR MATH 1153 OR MATH 1160 OR MATH 1170 OR MGT 2216 (counted in Gen Obj. 3)				
CHEM 1100 OR CHEM 1111/L OR CHEM 1112/L OR PHYS 1100 OR PHYS 1101/L OR PHYS 1111/1113 OR PHYS 1112/1114 (counted in Gen 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	