Catalog Year 2024-2025	*(For internal use only)*	
AAS, Industrial Cybersecurity Engineering Technology	☒	*No change*
	☐	*UCC proposal*

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 1162: Industrial Safety and Regulation	2	C-		F, S, D		
ESET 1121: Basic Electricity and Electronics	4	C-		S, F	Minimum score of 30 on ALEKS or equivalent	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		
ESET 1181: Introduction to Cyber-Physical Systems	3	C-		F, D		
ESET 1182: Information Technology Fundamentals	3	C-		F, D		
Total	20					
Semester Two						
GE Objective 3: MGT 2216 **OR** MATH 1143 **OR** 1147 **OR** 1153 **OR** 1160 **OR** 1170	3-5	C-	GE			
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 permission	ESET 1122L
ESET 1122L: Electrical Systems and Motor Control Laboratory **(Recommended)**	1	C-		F, S, D	ESET 1121/L, or instructor permission	ESET 1122
GE Objective 5: PHYS 1101/L **(Recommended)**, **OR** PHYS 1100, **OR** PHYS 1111 **AND** 1113, **OR** PHYS 1112 **AND** 1114, **OR** CHEM 1100, **OR** CHEM 1111/L, **OR** CHEM 1112/L	4-5	C-	GE			
Total	14-17					
Semester Three						
GE Objective 1: ENGL 1101, Writing & Rhetoric I **OR** ENGL 1102: Writing & Rhetoric II	3	C-	GE	F, S, Su		
ESET 2205: Fundamentals of Control Logic **(Recommended)**	3	C-		F, S, D	Permission of instructor	
ESET 2242: Practical Process Measurements and Control **(Recommended)**	2	C-		F, D	ESET 1122 or instructor permission	
ESET 2282: Introduction to Networking	3	C-		F		
CYBR 3383: Security Design for Cyber-Physical Systems	3	C-		F, D	Pre- or Co-Req: ESET 1181, 2282, 2223, 2227, or instructor approval	Pre- or Co-Req: ESET 1181, 2282, 2223, 2227, or instructor approval
CYBR 3384: Risk Management for Cyber-Physical Systems	3	C-		F, D	Pre- or Co-Req: ESET 1181, 2282, 2223, 2227, CYBR 3383 or instructor approval	Pre- or Co-Req: ESET 1181, 2282, 2223, 2227, CYBR 3383, or instructor approval
Total	17					
Semester Four						
GE Objective 2: COMM 1101 Fundamentals of Oral Communication	3	C-	GE	F, S		
GE Objective 6: ECON 2201 **(Recommended)**	3	C-	GE	F, S, Su		
CYBR 4481: Defending Critical Infrastructure & 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 permission	
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.)

2024-2025 Major Requirements	CR	GENERAL EDUCATION OBJECTIVES Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9		36 cr. min
MAJOR REQUIREMENTS	**53**	1. Written English (6 cr. min) ENGL 1101 **OR** 1102		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 Intermediate Algebra	5	3. Mathematics MATH 1143, 1147, 1153, 1160, 1170, or MGT 2216		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			
ESET 2282: Introduction to Networking	3	5. Natural Sciences		
CYBR 3383: Security Design for Cyber-Physical Systems	3	PHYS 1101/L **(Recommended)**; OR PHYS 1111 **AND** PHYS 1113;		4-5
CYBR 3384: Risk Management for Cyber-Physical Systems	3	**OR** PHYS 1112 **AND** PHYS 1114; **OR** CHEM 1100; **OR** CHEM		
CYBR 4481: Defending Critical Infrastructure and Cyber Physical Systems	3	1111/L; **OR** CHEM 1112/L		
		6. Behavioral and Social Science		
CYBR 4486: Network Security for Industrial Environments	3	ECON 2201 **(Recommended)**		3
CYBR 4487: Professional Development and Certification	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 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 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	*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	
		OAA or COT:	EA 06/18/24	
		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**		

Form Revised 6.16.2021