



**Catalog Year 2024-2025**

AAS, Industrial Cybersecurity Engineering, Technology Apprenticeship

(For internal use only)

- 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
<b>Semester One</b>						
ESET 1181: Introduction to Cyber-Physical Systems	3	C-		F, D	Minimum score of 30 on ALEKS	
ESET 1140: Applied Technical Intermediate Algebra <b>(Recommended); OR</b> MATH 1147: College Algebra and Trigonometry	5	C-		F,S,D		
ESET 1182: Information Technology Fundamentals	3	C-				
Total	11					
<b>Semester Two</b>						
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
Total	7					
<b>Semester Three</b>						
GE Obj. 1: ENGL 1101: <b>(Recommended) OR</b> ENGL 1102: Writing and Rhetoric II	3	C-	GE	F, S, Su		
GE Obj. 5: PHYS 1101/L: <b>(Recommended) OR</b> CHEM 1100 <b>OR</b> CHEM 1111/L <b>OR</b> CHEM 1112/L <b>OR</b> PHYS 1100 <b>OR</b> PHYS 1111 <b>AND</b> PHYS 1113 <b>OR</b> PHYS 1112 <b>AND</b> PHYS 1114	4-5	C-	GE			
ESET 1162: Industrial Safety and Regulations	2	C-		F, S, D		
Total	9-10					
<b>Semester Four</b>						
ESET 1120: Introduction to Energy Systems	2	C-		F, S, D		ESET 1120L
ESET 1120L: Introduction to Energy Systems Laboratory	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 Laboratory	1	C-		F, S, D	ESET 1121/L	ESET 1122
GE Obj. 3: MATH MGT 2216: <b>(Recommended) OR</b> MATH 1143 <b>OR</b> MATH 1147 <b>OR</b> MATH 1153 <b>OR</b> MATH 1160 <b>OR</b> MATH 1170	3-5	C-	GE			
Total	10-12					
<b>Semester Five</b>						
ESET 2205: Fundamentals of Control Logic	3	C-		F, S, D	Permission of instructor	
ESET 2282: Introduction to Networking	3	C-		F		
INFO 4411: Intermediate Information Assurance	3	C-		D	INFO 1150 or INFO 3310 or CS 1337 or permission	
Total	9					
<b>Semester Six</b>						
GE Obj. 2: COMM 1101: Fundamentals of Oral Comm	3	C-	GE	F, S		
GE Obj. 6: Social and Behavioral Ways of Knowing	3	C-	GE			
CYBR 4486: Network Security for Industrial Environments	3	C-		S, D	ESET 2282, CYBR 3383, or permission	
Total	9					
<b>Semester Seven</b>						
ESET 2242: Practical Process Measurement and Control	2	C-		F, D	ESET 1122 or permission	
CYBR 3383: Security Design for Cyber-Physical Systems	3	C-		F, D	ESET 1181, 2282, 2223, 2227, or permission	
CYBR 3384: Risk Management for Cyber-Physical Systems	3	C-		F, D	ESET 1181, 2282, 2223, 2227, or permission	CYBR 3383
Total	8					
<b>Semester Eight</b>						
CYBR 4481: Defending Critical Infrastructure and Cyber Physical System	3	C-		S, D	ESET 2282, CYBR 3383, 3384, or permission	
CYBR 4487: Professional Development and Certification	3	C-		S, D	CYBR 3383, 3384, 4486	CYBR 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.)

