



Catalog Year 2023-2024

BAS, Cyber Physical Systems
Engineering Technology

(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
Semester Five						
GE Objective 1: ENGL 1102 (Recommended)	3	C-	GE	F, S, Su		
GE Objective 3: MGT 2216: Business Statistics	3	C-	GE	F, S	ENGL 1101/P and MATH 1108, or MGT 1116	
ESET 1181: Intro to Cyber-Physical Systems	3	C-		F, D	Minimum score of 30 on ALEKS or equivalent	
ESET 2282: Introduction to Networking	3	C-		F		
CYBR 3383: Security Design for Cyber-Physical Systems	3	C-	UM	F, D		ESET 1181, 2282, 2223, 2227, or instructor approval
CYBR 3384: Risk Management for Cyber-Physical Systems	3	C-	UM	F, D		ESET 1181, 2282, 2223, 2227, 3383, or instructor approved
Total	18					
Semester Six						
ENGL 3307: Professional and Technical Writing	3	C-	UU	F, S	45 credits and ENGL 1102	
BA 3316: Introduction to Data Analytics	3	C-	UU	F, S	MGT 2216, 2217	
CYBR 4481: Defending Critical Infrastructure & Cyber Physical Systems	3	C-	UM	S, D		
CYBR 4486: Network Security for Industrial Environments	3	C-	UM	S, D	ESET 2282, 3383, or instructor approval	
CYBR 4487: Professional Development and Certification	3	C-	UM	S, D		
CYBR 4489: Capstone in Industrial Cybersecurity OR ESET 4497: Internship	3	C-	UM	D		
Total	18					
Semester Seven						
GE Objective 7 or 8: CS 1181 or INFO 1101	3	C-	GE	F, S		
GE Objective 4: Humanistic and Artistic Ways of Knowing	3	C-	GE			
GE Objective 6: ECON 2201 (Recommended)	3	C-	GE	F, S, Su		
INFO 4411: Intermediate Information Assurance	3	C-	UU	D		
MGT 2217: Advanced Business Statistics	3	C-		F, S	MGT 2216 and MATH 1108	
Total	15					
Semester Eight						
GE Objective 9: Cultural Diversity	3	C-	GE			
MGT 3312: Individual and Organizational Behavior	3	C-	UM	F, S	Junior standing and ENGL 1102	
GE Objective 5: PHYS 1100, OR 1101/L, OR PHYS 1111 AND PHYS 1113, OR PHYS 1112 AND 1114, OR CHEM 1100, OR CHEM 1111/L, OR CHEM 1112/L; AND GE Objective 5: Any not previously taken course	7-8	C-	GE			
MGT 3329: Operations and Supply Chain Management	3	C-	UU	F, S	MGT 2217, BA 3316	
MGT 4482: Project Management	3	C-	UU	D	MGT 2216 or MATH 1153 or higher	
Total	19-20					
*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	83 CR	GENERAL EDUCATION OBJECTIVES Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9		36 cr. min
MAJOR REQUIREMENTS				
Previously received ESTEC AAS Degree	38	1. Written English (6 cr. min)	ENGL 1101	3
			ENGL 1102	3
		2. Spoken English (3 cr. min)	COMM 1101	3
ESET 1181: Introduction to Cyber-Physical Systems	3	3. Mathematics (3 cr. min)	MGT 2216	3
ESET 2282: Introduction to Networking	3	4. Humanities, Fine Arts, Foreign Lang. (2 courses; 2 categories; 6 cr. min)		
CYBR 3383: Security Design for Cyber-Security Systems	3	Any		3
CYBR 3384: Risk Management for Cyber-Physical Systems	3	Any		3
CYBR 4481: Defending Critical Infrastructure and Cyber Physical Systems	3	5. Natural Sciences (2 lectures-different course prefixes, 1 lab; 7 cr. min)		
CYBR 4486: Network Security for Industrial Environments	3	PHYS 1100 OR 1101/L OR 1111 AND 1113 OR 1112 AND 1114		7-8
CYBR 4487: Professional Development and Certification	3	OR CHEM 1101 OR 1111/L; OR 1112 AND 1114		
CYBR 4489: Capstone in Industrial Cybersecurity OR ESET 4497: Internship	3	Any other Objective 5 course that completes the objective		
		6. Behavioral and Social Science (2 courses-different prefixes; 6 cr. min)		
BA 3316: Introduction to Data Analytics	3	Any		3
INFO 4411: Intermediate Information Assurance	3	ECON 2201 (Recommended)		3
ENGL 3307: Professional and Technical Writing	3	One Course from EITHER Objective 7 OR 8 (1 course; 3 cr. min)		
MGT 2217: Applied Business Statistics	3	7. Critical Thinking	INFO 1101	3
MGT 3312: Individual and Organizational Behavior	3	8. Information Literacy	CS 1181	
MGT 3329: Operations and Supply Chain Management	3	9. Cultural Diversity (1 course; 3 cr. min)		
MGT 4482: Project Management	3	Any		3
		General Education Elective to reach 36 cr. min. (if necessary)		
			Total GE	37-38
		Undergraduate Catalog and GE Objectives by Catalog Year http://coursecat.isu.edu/undergraduate/programs/		
		MAP Credit Summary		CR
		Major		47
		General Education		37-38
		Upper Division Free Electives to reach 36 credits		36
		Free Electives to reach 120 credits		0
		TOTAL		120-121
		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)		
			<i>Date</i>	
		OAA or COT:	PJ 6/30/23	
		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		