Idaho State University

Catalog Year 2025-2026
ITC, Industrial Cybersecurity 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 One						
CYBR 3383: Security Design for Cyber-Physical Systems	3	C-		F, D	ESET 1181, 2223, 2227, and 2282, or instructor permission	ESET 1181, 2223, 2227, and 2282, or instructor permission
CYBR 3384: Risk Management for Cyber-Physical Systems	3	C-		F, S	ESET 1181, 2223, 2227, 2282, and CYBR 3383, or instructor approval	ESET 1181, 2223, 2227, 2282, and CYBR 3383, or instructor approval
ESET 1162: Industrial Safety and Regulations	2	C-		F, S, D		
ESET 1182: Information Technology Fundamentals	3	C-		F, S	Minimum score of ALEKS 30 or equivalent	
ESET 2205: Fundamentals of Control Logic	3	C-		F, S, D	Instructor approval	
ESET 2282: Introduction to Networking	3	C-		F		
Total	17					
Semester Two						
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, 4486, 4481	CYBR 3384, 4486, 4481
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 2242: Practical Process Measurements and Control **OR** ESET 2222: Process Control Theory AND ESET 2226: Process Control Devices Laboratory	2 3 1	C-		F, D F, S, D	ESET 1122 or instructor approval ESET 1101/L, 1102/L, 1140, or instructor approval	
INFO 4411: Intermediate Information Assurance	3	C-		D	INFO 1150 or INFO 3310 or CS 1137 or instructor approval	
Total	17-19					

*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
MAJOR REQUIREMENTS	**34-36**
CYBR 3383: Security Design for Cyber-Physical Systems	3
CYBR 3384: Risk Management for Cyber-Physical Systems	3
CYBR 4481: Defending Critical Infrastructure and Cyber Physical Systems	3
CYBR 4486: Network Security for Industrial Environments	3
CYBR 4487: Professional Development and Certification	3
ESET 1120: Introduction to Energy Systems	2
ESET 1120L: Introduction to Energy Systems Laboratory	1
ESET 1162: Industrial Safety and Regulations	2
ESET 1182: Information Technology Fundamentals	3
ESET 2205: Fundamentals of Control Logic	3
ESET 2242: Practical Process Measurement and Control **OR** ESET 2222: Process Control Theory AND ESET 2226: Process Control Devices Laboratory	2-4
ESET 2282: Introduction to Networking	3
INFO 4411: Intermediate Information Assurance	3

GENERAL EDUCATION OBJECTIVES Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9	**0 cr. min**
1. Written English	
2. Spoken English	
3. Mathematics	
4. Humanities, Fine Arts, Foreign Lang.	
5. Natural Sciences	
6. Behavioral and Social Science	
One Course from EITHER Objective 7 OR 8	
7. Critical Thinking	
8. Information Literacy	
9. Cultural Diversity	
General Education Elective to reach 36 cr. min.	
Total GE	**0**

Undergraduate Catalog and GE Objectives by Catalog Year
http://coursecat.isu.edu/undergraduate/programs/

MAP Credit Summary	**CR**
Major	34-36
General Education	0
Upper Division Free Electives to reach 36 credits	0
Free Electives to reach 120 credits	0
TOTAL	34-36

Graduation Requirement Minimum Credit Checklist	**Confirmed**
Minimum 36 cr. General Education Objectives (15 cr. AAS)	
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)	

Advising Notes

MAP Completion Status (for internal use only)

	Date
CAA or COT:	GR 06/27/2025

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

Form Revised 2.14.2023