Idaho State University

Catalog Year 2023-2024
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						
ESET 1162: Industrial Safety and Regulation	2	C-		F, S, D		ESET 0100L
ESET 2205: Fundamentals of Control Logic	3	C-		F, S, D	Instructor Permission	
ESET 2282: Introduction to Networking	3	C-		F		
ESET 1182: Information Technology Fundamentals	3	C-		F, S, D	Minimum score of 30 on ALEKS or equivalent	
CYBR 3383: Security Design for Cyber-Physical Systems	3	C-		F, D		ESET 1181, 2282, 2223, 2227, or instructor permission
CYBR 3384: Risk Management for Cyber-Physical Systems	3	C-		F, D		ESET 1181, 2282, 2223, 2227, CYBR 3383, or instructor permission
Total	17					
Semester Two						
ESET 1120: Introduction to Energy Systems	2	C-		F, S, D		ESET 1120L
ESET 1120L: Introduction to Energy Systems Lab	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 **OR** 3 1	C-		F, D F, S, D	ESET 1122 or instructor permission; **OR** ESET 1101, 1101L, 1102, 1102L, 1140, or instructor permission	
CYBR 4481: Defending Critical Infrastructure & Cyber Physical Systems	3	C-		S, D	ESET 2282, CYBR 3383, CYBR 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 INFO 3310 or CS 1337 or instructor permission	
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.)

2023-2024 Major Requirements	CR
MAJOR REQUIREMENTS	**34-36**
ESET 1120: Introduction to Energy Systems	2
ESET 1120L: Introduction to Energy Systems Laboratory	1
ESET 1162: Industrial Safety and Regulation	2
ESET 1182: Information Technology Fundamentals	3
ESET 2242: Practical Process Measurements and Control **OR** ESET 2222: Process Control Theory **AND** ESET 2226: Process Control Devices Laboratory	2-4
ESET 2205: Fundamentals of Control Logic	3
ESET 2282: Introduction to Networking	3
CYBR 3383: Security Design for Cyber-Physical Systems	3
CYBR 3384: Risk Management for Cyber-Physical Systems	3
CYBR 4481: Defending Critical Infrastructure & Cyber Physical Systems	3
CYBR 4486: Network Security for Industrial Environments	3
CYBR 4487: Professional Development and Certification	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 (6 cr. min)	
2. Spoken English (3 cr. min)	
3. Mathematics (3 cr. min)	
4. Humanities, Fine Arts, Foreign Lang. **(2 courses; 2 categories; 6 cr. min)**	
5. Natural Sciences **(2 lectures-different course prefixes, 1 lab; 7 cr. min)**	
6. Behavioral and Social Science **(2 courses-different prefixes; 6 cr. min)**	
One Course from EITHER Objective 7 OR 8 **(1 course; 3 cr. min)**	
7. Critical Thinking	
8. Information Literacy	
9. Cultural Diversity **(1 course; 3 cr. min)**	
General Education Elective to reach 36 cr. min. **(if necessary)**	
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
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

Form Revised 6.16.2021