

# B.A.S. Cyber Physical Systems Engineering Technology

## Program Admissions Requirements

Code	Title	Credits
<b>Complete one of the following ESTEC AAS programs</b>		<b>38</b>
	Energy Systems Instrumentation Engineering Technology	
	Energy Systems Electrical Engineering Technology	
	Energy Systems Mechanical Engineering Technology	
	Energy Systems Nuclear Operations Technology	
	Industrial Cybersecurity Engineering Technology	
Total Credits		38

## General Education

The listing below includes program requirements that also fulfill General Education requirements.

Code	Title	Credits
Objective 1		6
Objective 2		3
Objective 3 - MGT 2216		3
Objective 4		6
Objective 5 - CHEM 1100, CHEM 1111 & CHEM 1111L, CHEM 1112 & CHEM 1112L, PHYS 1100, PHYS 1101 & PHYS 1101L, PHYS 1111 & PHYS 1113, PHYS 1112 & PHYS 1114 and any other Objective 5 course		7-8
Objective 6 - ECON 2201 Recommended		6
<b>Students must fulfill Objective 7 or Objective 8</b>		<b>3</b>
Objective 7 - CS 1181		
Objective 8- INFO 1101		
Objective 9		3
Total Credits		37-38

## Major Requirements

Code	Title	Credits
MGT 2216	Business Statistics	3
<b>Choose any Objective 5 course and one of the following:</b>		<b>7-8</b>
CHEM 1100	Concepts of Chemistry	
or CHEM 1111 & 1111L	General Chemistry I and General Chemistry I Lab	
or CHEM 1112 & 1112L	General Chemistry II and General Chemistry II Lab	
or PHYS 1100	Essentials of Physics	
or PHYS 1101 & 1101L	Elements of Physics and Elements of Physics Laboratory	
or PHYS 1111 & PHYS 1113	General Physics I and General Physics I Laboratory	
or PHYS 1112 & PHYS 1114	General Physics II and General Physics II Laboratory	
<b>Choose one of the following Objective 7 or 8 Courses:</b>		<b>3</b>
INFO 1101	Digital Information Literacy	

CS 1181	Computer Science and Programming I	
ESET 1181	Introduction to Cyber-Physical Systems	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 and Cyber Physical Systems	3
CYBR 4486	Network Security for Industrial Environments	3
CYBR 4487	Professional Development and Certification	3
CYBR 4489 or ESET 4497	Capstone in Industrial Cybersecurity Internship	3
BA 3316	Introduction to Data Analytics	3
INFO 4411	Intermediate Information Assurance	3
ENGL 3307	Professional and Technical Writing	3
MGT 2217	Applied Business Statistics	3
MGT 3312	Individual and Organizational Behavior	3
MGT 3329	Operations and Supply Chain Management	3
MGT 4482	Project Management	3
Total Credits		58-59

## Degree Totals

Code	Title	Credits
	Program Admission Requirements	38
	General Education	37-38
	Major Requirements (Required General Education credits removed.)	45
	Upper Division Free Electives	
	Free Electives	
Total Credits		120-121

ISU Degree Requirements (<http://coursecat.isu.edu/undergraduate/degree requirements/>)

ISU General Education (<http://coursecat.isu.edu/undergraduate/academicinformation/generaleducation/>)

Major Academic Plan (MAP)