

B.S. in Cyber Intelligence and Security

At the **Prescott Campus**, the Bachelor of Science in Cyber Intelligence and Security is housed in the Department of Cyber Intelligence and Security in the College of Business, Security and Intelligence. The program focuses on cybersecurity and the analysis of threats related to the increasing reliance on technology. Instruction is provided by faculty with experience in government, academia, and computer science. The program includes coursework and activities conducted in the Cyber Intelligence Security Center and the Cyber Gym Makerspace. Students should be aware that many courses have prerequisites and/or corequisites, and some courses are offered only during the fall or spring semester. The Prescott Campus is designated through 2029 by the National Security Agency and the Department of Homeland Security as a National Center of Academic Excellence in Cyber Defense (CAE-CD), with the Bachelor of Science in Cyber Intelligence and Security as the CAE-CD program of study. The Bachelor of Science in Cyber Intelligence and Security is accredited by the Computing Accreditation Commission of ABET under the General Criteria and Program Criteria for Cybersecurity and Similarly Named Computing Programs.

Program-Level Student Learning Outcomes

Students will:

- Have an ability to analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- Have an ability to design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Have an ability to communicate effectively in a variety of professional contexts.
- Have an ability to recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- Have an ability to function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- Have an ability to apply security principles and practices to maintain operations in the presence of risks and threats.

Prescott Program Requirements

General Education Requirements	36
Core Requirements	39
Support Courses	39
Electives	6
Total Credits	120

Program Details

The Bachelor of Science in Cyber Intelligence and Security program requires successful completion of a minimum of 120 credit hours. The program may be completed in eight semesters, or four years, assuming appropriate background and full-time enrollment. Students pursuing this undergraduate degree must earn a minimum cumulative grade point average (CGPA) of 2.00 for all work completed at the University. Students must complete a senior capstone experience through a thesis, capstone project, or cooperative education/internship option. In addition, a minimum of 80 percent of the program core must be completed in residence or transferred from institutions approved by the Department Chair. The courses necessary to earn this degree are listed below.

Students should be aware that many courses have prerequisites and/or corequisites. Students are encouraged to follow the recommended

course sequence and are responsible for ensuring that all prerequisite and degree requirements are met prior to enrollment in advanced coursework.

General Education Requirements

Communication	9
COMM 122	English Composition
COMM 219	Speech
COMM 223	Intelligence Communication
Humanities - Lower Level	3
Social Sciences - Lower Level	3
Humanities/Social Sciences - Lower or Upper Level	3
Humanities/Social Sciences - Upper Level	3
Computer Science/Information Technology	3
CPSC 118	Fundamentals of Computer Programming
Mathematics	6
MATH 111	Pre-calculus for Aviation
MATH 112	Applied Calculus for Aviation
Physical/Life Sciences	6
Total Credits	36

Core Requirements

CISE 120	Introduction to Cyber Security Majors	3
CISE 201	Introduction to Linux, Unix, Windows, and Scripting	3
CISE 311	Securing Computer Networks	3
CISE 320	Ethical Hacker - Pen Testing	3
CISE 330	Software Security	3
CISE 340	Database System Security	3
CISE 350	Mobile and Cloud Computing Security	3
CISE 360	Cyber Threat Intelligence Majors	3
CISE 410	Malware Analysis	3
CISE 450	Computer Forensics II	3
CISE 460	Big Data Analytics and Machine Learning	3
CISE 480	Emerging Topics in Cybersecurity	3
CISE 490	Cyber Capstone Project	3
or CISE 492	Senior Thesis	
or COIN 497	Co-Operative Education	
Total Credits		39

Support Courses

Program

CPSC 213	Introduction to Computer Networks	3
CPSC 222	Introduction to Discrete Structures	3
CPSC 223	Scientific Programming in C	3
CPSC 303	Cryptography and Network Security	3
CPSC 304	Introduction to Computer Forensics	3
CPSC 315	Data Structures and Analysis of Algorithms	3
CPSC 420	Operating Systems	3
MATH 314	Applied Linear Algebra and Statistics	3
Total Credits		24

Business

ACCT 329	Forensic Accounting and Fraud Examination	3
MGMT 201	Principles of Management	3
Total Credits		6

Global Security and Intelligence Studies

GSIS 185	Risk Intelligence and Management	3
GSIS 210	Security Fundamentals	3

GSIS 315	Intelligence Fundamentals	3
Total Credits		9

Electives

Open Electives	6
Total Credits	6

Suggested Plan of Study

Year One

Requirements	Credits
GSIS 185 - Risk Intelligence and Management	3
CISE 120 - Introduction to Cyber Security Majors	3
COMM 122 - English Composition	3
CPSC 118 - Fundamentals of Computer Programming	3
MATH 111 - Pre-calculus for Aviation	3
Semester Hours	15

Requirements	Credits
GSIS 210 - Security Fundamentals	3
MATH 112 - Applied Calculus for Aviation	3
CPSC 223 - Scientific Programming in C	3
CISE 201 - Introduction to Linux, Unix, Windows, and Scripting	3
Social Sciences - Lower Level	3
Semester Hours	15

Total Credits

Total Hours for All Requirements: 30

Year Two

Requirements	Credits
COMM 223 - Intelligence Communication	3
Humanities - Lower Level	3
CPSC 222 - Introduction to Discrete Structures	3
CPSC 315 - Data Structures and Analysis of Algorithms	3
CPSC 213 - Introduction to Computer Networks	3
Semester Hours	15

Requirements	Credits
MGMT 201 - Principles of Management	3
MATH 314 - Applied Linear Algebra and Statistics	3
CPSC 303 - Cryptography and Network Security	3
CISE 311 - Securing Computer Networks	3
Physical/Life Sciences	3
Semester Hours	15

Total Credits

Total Hours for All Requirements: 30

Year Three

Requirements	Credits
Humanities/Social Sciences - Lower or Upper Level	3
CPSC 304 - Introduction to Computer Forensics	3
CISE 320 - Ethical Hacker - Pen Testing	3
CISE 330 - Software Security	3
COMM 219 - Speech	3
Semester Hours	15

Requirements	Credits
Physical/Life Sciences	3
CISE 450 - Computer Forensics II	3
CISE 340 - Database System Security	3
CISE 350 - Mobile and Cloud Computing Security	3
GSIS 315 - Studies in Global Intelligence	3
Semester Hours	15

Total Credits

Total Hours for All Requirements: 30

Year Four

Requirements	Credits
ACCT 329 - Forensic Accounting and Fraud Examination	3
CPSC 420 - Operating Systems	3
CISE 460 - Big Data Analytics and Machine Learning	3
CISE 360 - Cyber Threat Intelligence Majors	3
Open Elective	3
Semester Hours	15

Requirements	Credits
Humanities/Social Sciences - Upper Level	3
CISE 410 - Malware Analysis	3
CISE 480 - Emerging Topics in Cybersecurity	3
CISE 490 - Cyber Capstone Project	3
Open Elective	3
Semester Hours	15

Total Credits

Total Hours for All Requirements: 30