

Cybersecurity, A.A.S

Visit the Information Systems and Technology Department page (<https://www.uvu.edu/ist/>) for more information on the program and access to advising.

Program Description

The AAS program in Cybersecurity is tailored for individuals entering the cybersecurity field or those aiming to enhance their technical knowledge for immediate entry into the workforce. The curriculum strikes a balance between theoretical understanding and practical competency, covering key topics such as information systems fundamentals, programming, system administration, data communication, cloud computing, and defensive and offensive security operations. Strong emphasis is placed on industry certifications, with students encouraged to pursue CompTIA Linux+, CompTIA A+, CompTIA Network+, CompTIA Cloud+, and CompTIA Security+. The program culminates in a Cybersecurity Capstone, providing students with a hands-on opportunity to apply their skills. Students earning this degree will be well-prepared for entry-level roles, and the inclusion of industry-recognized certifications enhances their competitiveness in the dynamic cybersecurity job market. The program also offers a flexible pathway for seamless progression toward a bachelor's degree, supporting further academic and career advancement.

Program Requirements

Code	Title	Credit Hours
Total Credit Hours		60
General Education Requirements		12 Credits
ENGL 1010 or ENGL 1005	Introduction to Academic Writing Foundations of Academic Writing	3
Complete one of the following:		3
MATH 1090	College Algebra for Business (3)	
MATH 1050	College Algebra (4)	
MATH 1055	College Algebra with Preliminaries (5)	
Distribution Courses:		
Social/Behavioral Science Distribution ¹		3
Personal, Professional, and Civic Growth		3
Discipline Core Requirements		21 Credits
INFO 1120	Information Systems and Technology Fundamentals	3
INFO 1200	Computer Programming I for IS IT	3
IT 1510	Introduction to System Administration--Linux/UNIX	3
IT 1600	Computer Architecture and Systems Software	3
INFO 2410	Database Fundamentals	3
IT 2530	Introduction to System Administration--Windows Client	3
IT 2600 or CS 2600	Data Communication Fundamentals Computer Networks I	3
Cybersecurity Core Requirements		15 Credits
CYBR 2650	Cloud Computing and Security	3
CYBR 2700	Information Security Fundamentals	3
CYBR 2750	Scripting for Cybersecurity	3
CYBR 2800	Computer Forensic Fundamentals	3
Complete one of the following:		3
CYBR 2850	Cybersecurity Project (undefined)	
CYBR 2810R	Internship (undefined)	
CYBR 2900R	Current Topics in Cybersecurity (undefined)	
Discipline Elective Requirements		12 Credits
Complete 12 credit hours from the following:		12
CJ 1330	Criminal Law (3)	

CS 2420	Introduction to Algorithms and Data Structures (3)
INFO 2200	Computer Programming II for IS IT (undefined)
INFO 2420	Web Application Design (3)
INFO 2500	Applied Artificial Intelligence Concepts in Organizations (3)
NSS 2010	Introduction to National Security (3)
IT 1200	Scripting for Administrators (3)
IT 2400	Voice and Data Cabling Fundamentals (3)

Graduation Requirements

1. Completion of a minimum of 60 semester credits.
2. Overall grade point average 2.0 or above with a minimum of 2.5 GPA in all discipline core, major core, and elective courses with no grade lower than a "C-."
3. Residency hours: Minimum of 33 credit hours through course attendance at UVU.
4. Completion of GE and specified departmental requirements.
5. Students are responsible for completing all prerequisite courses.

Graduation Plan

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in Wolverine Track (<http://www.uvu.edu/wolverinetrack/>).

First Year

Semester 1		Credit Hours
ENGL 1010 or ENGL 1005	Introduction to Academic Writing or Foundations of Academic Writing	3
Social/Behavior Science		3
MATH 1090	College Algebra for Business	3
INFO 1120	Information Systems and Technology Fundamentals	3
IT 1510	Introduction to System Administration--Linux/UNIX	3
Credit Hours		15
Semester 2		
Personal, Professional, and Civic Growth		3
INFO 1200	Computer Programming I for IS IT	3
IT 1600	Computer Architecture and Systems Software	3
IT 2600 or CS 2600	Data Communication Fundamentals or Computer Networks I	3
Discipline Elective		3
Credit Hours		15
Second Year		
Semester 3		
INFO 2410	Database Fundamentals	3
IT 2530	Introduction to System Administration--Windows Client	3
CYBR 2700	Information Security Fundamentals	3
Discipline Elective		3
Discipline Elective		3
Credit Hours		15
Semester 4		
CYBR 2650	Cloud Computing and Security	3
CYBR 2750	Scripting for Cybersecurity	3
CYBR 2800	Computer Forensic Fundamentals	3
CYBR 2850	Cybersecurity Project	3
Discipline Elective		3
Credit Hours		15
Total Credit Hours		60

Program Learning Outcomes

1. Analyze a broadly defined security problem and apply principles of cybersecurity to the design and implementation of solutions.
2. Apply security principles and practices to maintain operations in the presence of risks and threats.

3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in cybersecurity practice based on legal and ethical principles.
5. Function effectively as a member of a team engaged in cybersecurity activities.

Computer and information systems managers

- Total Positions 613,500
- Field Growth 17.4%
- Median Salary \$169,510
- Average Openings 54.7

Information security analysts

- Total Positions 180,700
- Field Growth 32.7%
- Median Salary \$120,360
- Average Openings 17.3

Computer network support specialists

- Total Positions 166,700
- Field Growth 7.3%
- Median Salary \$71,530
- Average Openings 12.1

Database administrators

- Total Positions 80,500
- Field Growth 8.2%
- Median Salary \$101,510
- Average Openings 5.3

Database architects

- Total Positions 61,400
- Field Growth 10.8%
- Median Salary \$134,700
- Average Openings 4.2

Network and computer systems administrators

- Total Positions 335,400
- Field Growth -2.6%
- Median Salary \$95,360
- Average Openings 16.4