

INFORMATION SYSTEMS TECHNOLOGY: CYBERSECURITY

Award: Associate of Applied Science Degree

Major: Information Systems Technology

Specialization: Cybersecurity

Additional Program Information: <https://www.brcc.edu/academics/programs/ist/>

Potential Additional Funding Information: <https://www.brcc.edu/g3/>

The A.A.S. degree in Information Systems Technology with a specialization in Cybersecurity focuses on confidentiality, integrity, and availability of data. Graduates from this specialization can expect to find entry level jobs in computer security related fields.

Required Courses Curriculum

First Semester		Credit Hours
ENG 111	College Composition I	3
Select one of the following:		3
ITE 120	Principles of Information Systems	
ITE 152	Introduction to Digital Literacy and Computer Applications	
ITN 208	Protocols and Communications TCP/IP	4
SDV 101	Orientation to (IT Professions)	1
Select one of the following: ¹		3
MTH 111	Basic Technical Mathematics	
MTH 154	Quantitative Reasoning	
MTH 155	Statistical Reasoning	
MTH 161	Precalculus I	
ITN 107	Personal Computer Hardware and Troubleshooting	3
Credit Hours		17
Second Semester		
ENG 112	College Composition II	3
Select one of the following:		3
ITP 100	Software Design	
CSC 110	Principles of Computer Science	
ITD 110	Web Page Design I	3
ITE 160	Introduction to E-Commerce	3
ITN 106	Microcomputer Operating Systems	3
ITN 260	Network Security Basics	3
Credit Hours		18
Third Semester		
ITD 130	Database Fundamentals	3
ITN 103	Administration of Networked Services	3
ITN 262	Network Communication, Security and Authentication	3
ITN 257	Cloud Computing: Infrastructure and Services	3
Social and Behavioral Science (https://catalog.brcc.edu/programs-study/general-education-aas/#social)		3
Credit Hours		15
Fourth Semester		
ITN 263	Internet/Intranet Firewalls and E-Commerce Security	3
ITN 276	Computer Forensics I	3
ITP 296 or ITP 298	On-site Training in ITP or Seminar & Project	3
ITN 261	Network Attacks, Computer Crime & Hacking	3

Literature/Humanities/ Fine Arts Elective (https://catalog.brcc.edu/programs-study/general-education-aas/#literature)	3
Credit Hours	15
Total Credit Hours	65

¹ Any student planning to transfer should choose MTH 154 or MTH 161.

² The internship or capstone project should be completed in the last semester of the program.

Certificates

Cybersecurity and Networking Foundations

Award: Career Studies Certificate

Potential Additional Funding Information: <https://www.brcc.edu/g3/>

This curriculum is designed to provide students with fundamental knowledge and skills in computer networking, cyber threats, and how to secure hardware/software from vulnerabilities.

Code	Title	Credit Hours
ITN 106	Microcomputer Operating Systems	3
ITN 107	Personal Computer Hardware and Troubleshooting	3
ITN 208	Protocols and Communications TCP/IP	4
ITN 260	Network Security Basics	3
Select one of the following:		3
ITP 100	Software Design	
CSC 110	Principles of Computer Science	
SDV 101	Orientation to (IT Professions)	1
Total Credit Hours		17

Intermediate Cybersecurity

Award: Career Studies Certificate

Potential Additional Funding Information: <https://www.brcc.edu/g3/>

Purpose: To provide students with fundamental knowledge and skills in cyber-attacks, intrusion detection and prevention, network penetration testing, security auditor to determine and secure hardware/software vulnerabilities. Possible career positions are: IT auditor, security analyst, or security administrator.

The program emphasizes the importance of security and assists students in preparing for security environments in the information technology field. The Cybersecurity Career Studies Certificate provides students with basic knowledge and hard skills needed to enter the information technology security field. Courses in this certificate may be applied to the Associate in Applied Science Degree in Information Systems Technology.

Code	Title	Credit Hours
Select one of the following:		3
ITE 120	Principles of Information Systems	
ITE 152	Introduction to Digital Literacy and Computer Applications	
ITN 103	Administration of Networked Services	3
ITN 261	Network Attacks, Computer Crime & Hacking	3
ITN 262	Network Communication, Security and Authentication	3
ITN 263	Internet/Intranet Firewalls and E-Commerce Security	3
ITN 276	Computer Forensics I	3
Total Credit Hours		18

Cybersecurity

Award: Career Studies Certificate

Additional Program Information: <https://www.brcc.edu/academics/programs/ist/>

Purpose: To provide students with fundamental knowledge and skills in cyber-attacks, intrusion detection and prevention, network penetration testing, security auditor to determine and secure hardware/software vulnerabilities. Possible career positions are: IT auditor, security analyst, or security administrator.

The program emphasizes the importance of security and assists students in preparing for security environments in the information technology field. The Cybersecurity Career Studies Certificate provides students with basic knowledge and hard skills needed to enter the information technology security field. All courses in this certificate may be applied to the Associate in Applied Science Degree in Information Systems Technology.

Code	Title	Credit Hours
Select one of the following:		
CSC 110	Principles of Computer Science	3
ITP 100	Software Design	
ITN 103	Administration of Networked Services	3
ITN 106	Microcomputer Operating Systems	3
ITN 260	Network Security Basics	3
ITN 208	Protocols and Communications TCP/IP	4
ITN 261	Network Attacks, Computer Crime & Hacking	3
ITN 263	Internet/Intranet Firewalls and E-Commerce Security	3
SDV 101	Orientation to (IT Professions)	1
Total Credit Hours		23