

CYBERSECURITY, ASSOCIATE IN APPLIED SCIENCE



COMPUTER AND INFORMATION TECHNOLOGY

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		3	
BPC270	A+ Exam Prep: Operating System Configuration and Support		
MST150++	Any Microsoft Windows course ¹		
CIS105	Survey of Computer Information Systems	3	
CIS111	Ethics in Information Technology	3	
or ITS120	Legal, Ethical and Regulatory Issues		
CIS126DL	Linux Operating System	3	
or CIS126RH	Red Hat System Administration I		
CIS156	Python Programming: Level I	3	
Select one of the following:		3-4	
CIS190	Introduction to Networking		
CNT140AB	Introduction to Networks ²		
Select one of the following:		3-6	
CIS271DB & CIS272DB	Information Security Essentials and Information Security Principles ³		
CIS270	Essentials of Network and Information Security		
ITS110	Information Security Fundamentals ⁴		

FYE101	Introduction to College, Career and Personal Success	1-3	
or FYE103	Exploration of College, Career and Personal Success		
ITS240	Ethical Hacking and Network Defense	3	

Restricted Electives

Students must complete 12-18 credits from the following list of courses. Courses cannot be repeated for credit.

Courses that are required for a specialization in Cyber Operations, Linux System Administration, Microsoft System Administration, Cisco Network Administration and Security, Cyber Engineering, and/or Critical Infrastructure are noted.

Specialization I: Cyber Operations (17 Credits)

BPC170	A+ Exam Prep: Computer Hardware Configuration and Support		
CIS238DL	Linux System Administration		
or CIS238RH	Red Hat System Administration II		
CIS290AC	Computer Information Systems Internship		
or CIS298AC	Special Projects		
ITS291	Computer Forensics Foundations		
ITS292	Advanced Computer Forensics		

Specialization II: Linux System Administration (15 Credits)

CIS238DL	Linux System Administration		
or CIS238RH	Red Hat System Administration II		
CIS239DL	Linux Shell Scripting		
CIS240DL	Linux Network Administration		
CIS271DL	Linux Security		
or CIS271RH	Red Hat System Administration IV		
CIS275DL	Linux Capstone		

Specialization III: Cloud System Administration (15-16 Credits)

BPC274	Advanced Server Computer Maintenance: Server+ Prep	_____
CIS121AH	Microsoft PowerShell/ Command Line Operations	_____
CIS239DL	Linux Shell Scripting	_____
MST160	Azure Administrator	_____
CLD110	Amazon Web Services Cloud Foundations	_____
MST260	Microsoft Azure Cloud Development and Operations	_____
CLD120	Amazon Web Services Cloud Architect Associate	_____
<i>Specialization IV: Cisco Network Administration and Security (12 Credits)</i>		
CNT150AB	Switching, Routing, and Wireless Essentials	_____
CNT160AB	Enterprise Networking, Security, and Automation	_____
CNT202	Cisco Secure Firewall Appliance Configuration	_____
or CNT205	Cisco Certified Network Associate Security	_____
<i>Specialization V: Cyber Engineering (18 Credits)</i>		
CIS162++	Any C Programming: Level I course ⁵	_____
CIS227	Assembly Language	_____
CIS238DL	Linux System Administration	_____
or CIS238RH	Red Hat System Administration II	_____
CIS250	Management of Information Systems	_____
CIS262++	Any C Programming: Level II course	_____
Select one of the following: _____		

CIS119DO	Introduction to Oracle: SQL	_____
CIS276++	Any SQL Database course	_____
<i>Specialization VI: Critical Infrastructure (16 Credits)</i>		
CIS143	Introduction to Critical Infrastructure Protection	_____
CIS201	Introduction to Operational Technology	_____
CIS202	Introduction to Smart Grid Security	_____
CIS203	Principles of the Risk Management Framework	_____
CNT150AB	Switching, Routing, and Wireless Essentials	_____
General Electives		
Select additional courses 100-level or higher to complete a minimum of 61-semester credits. It is recommended to select from the restricted elective options. ⁶	0-3	_____
General Education		
Core		
<i>First-Year Composition</i>		
ENG101	First-Year Composition	3
or ENG107	First-Year Composition for ESL	_____
ENG102	First-Year Composition	3
or ENG108	First-Year Composition for ESL	_____
<i>Oral Communication</i>		
Select one of the following:	3	_____
COM100	Introduction to Human Communication ⁷	_____
COM110	Interpersonal Communication	_____
COM225	Public Speaking	_____
COM230	Small Group Communication	_____
<i>Critical Reading</i>		
Select one of the following:	0-3	_____
CRE101	College Critical Reading and Critical Thinking	_____
Or equivalent as indicated by assessment _____		
<i>Mathematics</i>		

Any approved general education course(s) in the Mathematics area	3-6	_____
Distribution		
<i>Humanities, Arts and Design</i>		
Any approved general education course(s) from the Humanities, Arts and Design area	3	_____
<i>Social and Behavioral Sciences</i>		
Any approved general education course(s) in the Social and Behavioral Sciences area	3	_____
<i>Natural Sciences</i>		
Any approved general education course(s) in the Natural Sciences area	4	_____

- ¹ MST150++ required for Microsoft System Administration specialization and Critical Infrastructure specialization
- ² CNT140AB Introduction to Networks required for Cisco Network Administration and Security specialization and Critical Infrastructure specialization
- ³ CIS271DB Information Security Essentials **and** CIS272DB Information Security Principles required for Critical Infrastructure specialization
- ⁴ ITS110 Information Security Fundamentals required for Cyber Operations specialization
- ⁵ Students intending to transfer to U of A South should take CIS162 C Programming I
- ⁶ Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.
- ⁷ COM100 Introduction to Human Communication required for students intending to transfer to ASU West to earn a Bachelor of Science in Applied Computing (Cybersecurity).