

Cybersecurity AAS

Associate of Applied Science Degree

Program Director: Cheryl Simpson

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The Cybersecurity Degree prepares students for a career as a system technician/system analyst with a focus on the skills required to understand and conceptualize, design, procure, and/or build secure information technology (IT) systems.

Upon completion of the Cybersecurity Degree, students will be able to successfully provide the support, administration, and maintenance necessary to ensure effective and efficient information technology (IT) system performance and security as an entry level or higher systems technician/system analyst.

Program prepares students for CompTia certifications, including A+, Network +, Security+, CySA+, Linux+.

Outcomes

Graduates are prepared to:

Securely Provision

- Conceptualize, design, procure, and/or builds secure information technology (IT) systems, with responsibility for aspects of system and/or network development.

Operate and Maintain

- Provides the support, administration, and maintenance necessary to ensure effective and efficient information technology (IT) system performance and security.

Oversee and Govern

- Provides leadership, management, direction, or development and advocacy so an organization may effectively conduct cybersecurity work.

Protect and Defend

- Identifies, analyzes, and mitigate threats to internal information technology (IT) systems and/or networks.

Analyze

- Performs highly-specialized review and evaluation of incoming cybersecurity information to determine its usefulness for intelligence.

Collect and Operate

- Provides specialized denial and deception operations and collection of cybersecurity information that may be used to develop intelligence.

Investigate

- Investigates cybersecurity events or crimes related to information technology (IT) systems, networks, and digital evidence.

Outcomes are based on the National Institute for Cybersecurity Education (NICE) (<https://niccs.cisa.gov/workforce-development/nice-framework/>) Outcomes

Estimated Cost

Estimated Resident Program Cost*

Tuition and Fees	\$8,056
Lab/Course Fees	\$1,070
Books/ Supplies	\$2,268
Total	\$11,394

* Fall 2024 MUS Student Health Insurance Premiums may be changing. Please check the Health Insurance website (<http://students.gfcmu.edu/insurance.html>) and/or Student Central for confirmed premium rates.

Program Requirements

Many students need preliminary math and writing courses before enrolling in the program requirements. These courses may increase the total number of program credits. Students should review their math and writing placement before planning out their full program schedules.

Course	Title	Credits	Grade/Sem
First Year			
Fall			
CSCI 100	Introduction to Programming *,+	3	_____
CSCI 105	Computer Fluency +	3	_____
ITS 280	Computer Repair and Maintenance *,+	4	_____
M 121	College Algebra **,+	3	_____
Choose one of the following:			
WRIT 101	College Writing I **,+	3	_____
WRIT 121	Introduction to Technical Writing **,+	3	_____
Credits		16	
Spring			
COMX 115	Introduction to Interpersonal Communication +	3	_____
ITS 164	Networking Fundamentals *,+	3	_____
ITS 210	Network Operating System - Desktop *,+	3	_____
ITS 218	Network Security *,+	3	_____
ITS 224	Introduction To Linux *,+	4	_____
Credits		16	
Second Year			
Fall			
ITS 215	Network Operating Systems - Directory /Infrastructure *,+	4	_____
ITS 245	Computer Forensics +	3	_____
ITS 271	Securing Desktop/Mobile Devices *,+	4	_____
ITS 279	Cloud Systems *,+	3	_____
Credits		14	
Spring			
BGEN 220	Business Ethics and Social Responsibility +	3	_____
ITS 222	Enterprise Security *,+	3	_____

ITS 274	Ethical Hacking and Network Defense *+.	3	_____
ITS 277	Software Assurance and File System Internals *+.	4	_____
Select one of the following:			
ITS 298	Internship *+.	3	_____
ITS 299	Capstone *+.	3	_____
Credits		16	
Total Credits		62	

Suggested Electives

This class is highly recommended in addition to standard cybersecurity curriculum.

Course	Title	Credits	Grade/Sem
ITS 289	Professional Certification	1	_____
ITS 291	Special Topics *	1-9	_____

Any CSCI Course not included in this program.

Any NTS Course not included in this program.

+ A grade of C- or above is required for graduation.

* Indicates prerequisites needed.

** Placement in course(s) is determined by placement assessment.