

# INFORMATION TECHNOLOGY - CYBERSECURITY, ASSOCIATE OF APPLIED BUSINESS



Students will prepare for careers dealing with networking and system administration fundamentals, with the primary focus being defensive strategies to securing networks and systems. Skills acquired will assist students in preparing to take nationally and internationally recognized industry certification exams.

**Program contact:** Learn more

## Related Degrees and Certificates

- Cybersecurity Post-Degree Professional Certificate

## Program Admission Requirements

- High School Diploma/GED.
- ENG-0995 Applied College Literacies or appropriate score on English Placement Test.
- MATH-0955 Beginning Algebra with "C" or higher or qualified Math Placement.

## Program Learning Outcomes

This program is designed to prepare students to demonstrate the following learning outcomes:

- Take continuous, pro-active measures to intimately know and understand the complete physical and logical structure of your network so that during normal operations and monitoring, security issues can be quickly identified, isolated and resolved, including measures to prevent future occurrences.
- Apply fundamental concepts of operating systems, business applications, networking, security, backup and recovery procedures to troubleshoot, maintain, and support hardware and software to ensure efficient and effective business operations.
- Apply principles of security to install, configure, maintain, and secure business operations.
- Explain what a risk assessment is, what types of assessments there are and how it can impact an organization. Also Explain drivers to information security policy/standard development, security governance, compliance to external regulation and internal policies and standards.
- Identify common industry security frameworks and explain why these exist. (NIST, Cyber Security Framework, CYBER, COBIT, ISO27001, etc.)

- Apply analytical, critical and creative thinking and problem solving/troubleshooting techniques to reduce risk in business operations.
- Communicate effectively utilizing verbal, written and presentation skills in person, on the phone, and via the Internet with diverse audiences to provide high level customer service to internal and external constituents at all levels in the organization.
- Work independently and effectively within a team to meet the needs of the organization.
- Operate within diverse business cultures with professionalism, integrity and accountability.
- Adapt to change within their profession by demonstrating a commitment to continuous learning and the flexibility to deal with different requirements from different clients with a wide range of personality styles and prior computer knowledge.
- Plan, organize, and prioritize tasks in order to meet project deadlines.
- Understand and apply legal, privacy, and ethical concepts; recognize and assess legal, privacy, and ethical issues; and demonstrate ethical, privacy, and legal behavior.

## Suggested Semester Sequence

Summer Start		Credit Hours
IT-1025	Information Technology Concepts for Programmers	3
MATH-1190	Algebraic and Quantitative Reasoning (or higher Approved Ohio Transfer 36 Mathematics course) <sup>1</sup>	3
Select one of the following:		3
ENG-1010	College Composition I	
ENG-101H	Honors College Composition I	
<b>Credit Hours</b>		<b>9</b>
First Semester		
BADM-1020	Introduction to Business	3
IT-1050	Programming Logic	3
IT-2740	Fundamentals of Client Operating Systems and Hardware for Cybersecurity	4
ITNT-2300	Networking Fundamentals	3
Select one of the following:		3
COMM-1010	Fundamentals of Speech Communication	
COMM-101H	Honors Speech Communication	
<b>Credit Hours</b>		<b>16</b>
Second Semester		
BADM-1070	Introduction to Project Management	3
ITNT-2320	Network Administration I	3
ITNT-2370	Network Security Fundamentals	3
ITNT-2380	Linux Administration	3
<b>Credit Hours</b>		<b>12</b>
Third Semester		
EET-1303	Cisco I <sup>2</sup>	3
EET-2303	Cisco II <sup>2</sup>	3
IT-2750	Scripting Fundamentals for Cybersecurity	3
Natural Science (lecture)		3
Select one of the following:		3
BADM-2010	Business Communications	

BADM-201H	Honors Business Communications	
<b>Credit Hours</b>		<b>15</b>
<b>Fourth Semester</b>		
BADM-1050	Professional Success Strategies	3
IT-2710	Advanced Topics in Network Security	3
Select one of the following:		3
PHIL-2020	Ethics	
PHIL-202H	Honors Ethics	
Select one of the following:		1-3
IT-2830	Cooperative Field Experience	
IT-2xxx	2000-level ITNT elective course	
<b>Credit Hours</b>		<b>10-12</b>
<b>Total Credit Hours</b>		<b>62-64</b>

<sup>1</sup> [MATH-1100 Mathematical Explorations or MATH-1240 Contemporary Mathematics taken prior to Fall 2024 will be accepted to meet mathematics requirement for this program.](#)

<sup>2</sup> Consecutive Eight Week Course.

## ELECTIVES

Code	Title	Credit Hours
IT-2720	Ethical Hacking and Systems Defense	3
IT-2730	Intrusion Detection/Prevention Systems Fundamentals	3
IT-2760	Introduction to Digital Forensics	3

MATH-1140, MATH-1141, MATH-1200, MATH-1270, and MATH-1280 can no longer count towards fulfilling the college-level mathematics requirement. These courses were re-classified as developmental mathematics by the state of Ohio in 2016. Tri-C established a 5-year transitioning window for students who had completed these courses prior to 2016 to apply them towards meeting graduation requirements, which expired in Summer 2021. It is highly recommended to see a counselor to determine the appropriate math required for your current major.