



Cybersecurity A.A.S.

Career Community: Computer Technology and Networking

Curriculum Code: 1832

Effective: Fall 2024 – Summer 2029

Description

This program is designed to provide the knowledge and skills needed to analyze security vulnerabilities, create a comprehensive incident-response plan, and implement the equipment, policies and procedures that protect a network and its related resources from unauthorized intrusion, information damage, or theft. Behaving ethically, writing policies and procedures, security operating systems, installing, and administering contemporary intrusion detection systems, and firewalls, implementing network defenses and countermeasures, responding to intrusions, and utilizing system-wide, multi-layered, compliance-based approaches are emphasized. Students completing this curriculum may also be eligible to apply for certificates of completion in Cybersecurity Foundations Certificate (1833). Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

Milestone

In addition to the required General Education courses in Math and English, completion of CITN 280 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in these courses is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in these courses.

Additional Information

To be awarded this degree, students must earn a minimum grade of 2.0 in each course.

Contact Information

For further information, including career options, course substitutions and waivers, etc., contact the Computer Information Technologies Program in the West Campus Building, Room M103, telephone number 517-267-6406 or Student Services West Campus, West Campus Building, Room M016, telephone number 517-267-5452.

General Education – Applied Degrees, Recommended Courses

(For the full list of options, see [General Education](#))

- English Composition or Applied English – *Select one*
ENGL 127, Business Writing, 3 credits / 3 billing hours

- English Composition (second course)/Communication or Applied Communication – *Select one*
 CITS 110, Help Desk Support Specialist, 3 credits / 3 billing hours
 COMM 110, Communication in the Workplace, 3 credits / 3 billing hours
 COMM 120, Dynamics of Communication, 3 credits / 3 billing hours
 COMM 130, Fundamentals Public Speaking, 3 credits / 3 billing hours
- Humanities and Fine Arts or Social Sciences or Applied Social Sciences – *Select one*
 MGMT 234, Diversity in the Workplace, 3 credits / 3 billing hours
- Mathematics or Applied Mathematics – *Select one*
 STAT 170, Introduction to Statistics, 4 credits / 4 billing hours
- Natural Sciences Lab or Applied Science and Technology Lab – *Select one*
 ISCI 131, Integrated Physical Science, 4 credits / 6 billing hours

Program of Study Required Courses

Course Code	Course Title	Credit / Billing Hours
CITC 282	Ethical Hacking	3 / 3
CITC 285	System Defense	3 / 3
CITC 287	Cybersecurity Incident Response	3 / 3
CITC 290	Cybersecurity Risk Management	4 / 4
CITF 140	Information Technology Ethics	3 / 3
CITF 240	IT Project Management	3 / 3
CITN 230	Linux Operating System	3 / 3
CITN 250	Microsoft Network Server	3 / 3
CITN 280	IT Security Foundations	3 / 3
CITO 100	Cloud Foundations with AWS	3 / 3
CITP 110	Intro to Programming – Python	4 / 4
CITS 125	Computer Support: A+ Cert Prep	6 / 6
CITS 225	Networking for PC Technicians	3 / 3

Program of Study Required Courses, Limited Choice – *Select one*

Course Code	Course Title	Credit / Billing Hours
CITI 100	AI Foundations	3 / 3
CITN 222	Wireless Networking & Security	3 / 3
CITO 120	Cloud Architecting with AWS	3 / 3
CITS 285	IT Professional Internship	3 / 3

Additional Credits

After completing the course and credit requirements as noted on this pathway, students who fall short of the 60-credit minimum required for an Associate Degree may select any course(s) needed to reach 60 credits, except those courses noted in number 7 in the [Institutional Requirements for Associate Degrees](#). Students are encouraged to use Degree Works and meet with an Advisor to ensure all requirements are met and for course recommendations.

Minimum Total Credit Hours

64 credits / 66 billing hours

Recommended Course Sequence

Semester I
Gen Ed – English Composition or Applied English
Gen Ed – Mathematics or Applied Mathematics
CITP 110
CITS 125

Semester II
Gen Ed – English Composition (second course)/Communication or Applied Communication
CITF 140
CITN 250
CITO 100
CITS 225

Semester III
Gen Ed - Natural Sciences Lab or Applied Science and Technology Lab
CITF 240
CITN 230
CITN 280 – Milestone course
Limited Choice

Semester IV
Gen Ed - Humanities and Fine Arts or Social Sciences or Applied Social Sciences
CITC 282
CITC 285
CITC 287
CITC 290

LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree title changes, and make course changes as needed, without prior notice.