



Cybersecurity Advanced C.C.

Career Community: Computer Technology and Networking

Curriculum Code: 1845

Effective: Fall 2025– Summer 2030

Purpose of the Major

This Certificate of Completion (C.C.) is tailored for working professionals in the IT industry who possess a relevant IT degree or have accrued two years of on-the-job experience. Its primary objective is to equip students with advanced knowledge and skills essential for practical applications in the field of Cybersecurity.

Within this program, students delve into fundamental concepts related to security vulnerability analysis, the creation of comprehensive incident response plans, and the implementation of equipment, policies, and procedures aimed at safeguarding networks and their associated resources from unauthorized intrusion, information compromise, or theft. The curriculum also places a strong emphasis on ethical behavior, policy and procedure development, security operating systems, as well as the installation and administration of modern intrusion detection systems and firewalls. In addition, students are trained in the implementation of network defenses and countermeasures, responding effectively to intrusions, and employing system-wide, multi-layered, compliance-based approaches.

The Cybersecurity Advanced C.C. focuses on preparing students for internationally recognized IT certifications and meeting the substantial demands of the business, industry, and government sectors.

Milestone

Completion of CITC 282 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in this course 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 this course.

Additional Information

This Cybersecurity Advanced C.C. is intended for students who have completed Cybersecurity Foundations C.C. (1833), Cybersecurity A.A.S. (1832), or another comparable degree. For detailed admissions requirements, contact the Computer Information Technology Program at 517-267-6406 for assistance.

To be awarded the certificate, a student must earn a minimum grade of 2.0 in each course.

Students may petition, on a course-by-course basis with proper documentation, to waive prerequisite(s) based on equivalent experience or course(s) taken elsewhere. Contact a Computer Information Technology program advisor if you have questions or would like to submit a petition.

Contact Information

For further information, including career options, course substitutions and waivers, etc., contact the Computer Information Technologies Program, West Campus, Room M103, telephone number 517-267-6406 or Student Services West Campus, West Campus Building, Room M106, telephone number 517-267-5452 or the Academic Advising Department, Gannon Building – Star Zone, telephone number 517-483-1904

Major 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 Respons	3 / 3
CITC 290	Cybersecurity Risk Management	4 / 4

Major Required Courses, Limited Choice – *Select 1 course*

Course Code	Course Title	Credit / Billing Hours
CITI 120	Data Analysis with Python	3 / 3
CITO 120	Cloud Architecting with AWS	3 / 3

Minimum Total Credit Hours

16 credits / 16 billing hours

Recommended Course Sequence

Semester I
CITC 282
Limited Choice
Semester II
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 titles, and make course changes as needed, without prior notice. The College also reserves the right to discontinue programs when warranted.