



Computer Networking and Cybersecurity A.B.

Curriculum Code: 1453

Effective: Fall 2020 – Summer 2025

Description

Networking technology binds computers and connects people with information, and information security seeks to protect this information. Students learn to design, create, and administer efficient information technology networks of data, voice, image, and video communications. Students learn to provide the technical management and support to keep systems running 24/7, and to safeguard the data they control. This degree focuses on technical competencies, as well as communication with users, management, and project planning skills. Students will be prepared to earn several industry-respected certifications. Students completing this curriculum may also be eligible to apply for certificates of completion in Cisco Certified Network Associate Certification Preparation (CCNA) (1469) and in Information Technology Foundations (0766). Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

Contact Information

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 Degree, Recommended Choices

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

- English Composition – *Select one*
ENGL 127, Business Writing, 3 credits / 3 billing hours
- English Composition (second course)/Communications or Applied Communications – *Select one*
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
BUSN 118	Introduction to Business	3 / 3
CITF 110	Intro Computer Info Systems	3 / 3
CITF 140	Information Technology Ethics	3 / 3
CITF 240	IT Project Management	3 / 3
CITN 120	Networking Concepts	3 / 3
CITN 220	Introduction to Networks	3 / 3
CITN 225	Switch Route Wireless Essentials	3 / 3
CITN 230	Linux/UNIX Operating System	3 / 3
CITN 240	Ent Networking Sec Automation	3 / 3
CITN 250	Microsoft Network Server	3 / 3
CITN 280	IT Security Foundations	3 / 3
CITP 110	Intro to Programming-Python	4 / 4
CITS 125	Computer Support: A+ Cert Prep	6 / 6

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

Course Code	Course Title	Credit / Billing Hours
CITD 250	Database Concepts	3 / 3
CITF 120	Operating Systems Concepts	3 / 3
CITN 115	IoT & Automation Fundamentals	5 / 6
CITN 222	Wireless Networking & Security	3 / 3
CITN 244	Securing Networking Devices	3 / 3
CITN 253	Networking with Windows Server	3 / 3
CITN 256	Identity with Windows Server	3 / 3
CITS 230	Computer Virtualization	3 / 3
CITS 285	IT Professional Internship	3 / 3

Total Credit Hours

66-68 credits /68-71 billing hours

Recommended Course Sequence

Semester I	Semester II
Gen Ed – Mathematics or Applied Mathematics	Gen Ed - English Composition
CITF 110	CITN 220 (First 8 weeks)
CITF 140	CITN 225 (Second 8 weeks)
CITN 120	CITN 250
CITS 125	CITP 110

Semester III	Semester IV
Gen Ed - Natural Sciences Lab or Applied Science and Technology CITF 240 CITN 230 CITN 240 Limited Choice	Gen Ed – English Composition (Second Course)/ Communications or Applied Communications Gen Ed - Humanities and Fine Arts or Social Sciences or Applied Social Sciences BUSN 118 CITN 280 Limited Choice