



Computer Networking and Cybersecurity A.B.

Curriculum Code: 1453

Effective: Fall 2019 – Summer 2024

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 Core Courses, Recommended Choices

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

- Communication – *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, Fund of Public Speaking, 3 credits / 3 billing hours

- Global Perspective and Diversity – *Select one*
MGMT 234, Diversity in the Workplace, 3 credits / 3 billing hours

- Math – *Select one*
STAT 170, Introduction to Statistics, 4 credits / 4 billing hours

- Science – *Select one*
ISCI 131, Integrated Physical Science, 4 credits / 6 billing hours

- Writing – *Select one*
ENGL 127, Business Writing, 3 credits / 3 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 120	Operating Systems Concepts	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	Routing & Switching Essentials	3 / 3
CITN 230	Linux/UNIX Operating System	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
CITN 115	IoT & Automation Fundamentals	5 / 6
CITN 222	Wireless Networking & Security	3 / 3
CITN 240	Scaling Networks	3 / 3
CITN 244	Securing Networking Devices	3 / 3
CITN 245	Connecting Networks	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
Math Core	Writing Core
CITF 110	CITF 120
CITF 140	CITN 220 (First 8 weeks)
CITN 120	CITN 225 (Second 8 weeks)
CITS 125	CITN 250
	CITP 110

Semester III	Semester IV
Science Core CITF 240 CITN 230 Limited Choice	Communication Core Global Perspectives and Diversity Core BUSN 118 CITN 280 Limited Choice