

**LANSING COMMUNITY COLLEGE**

**Computer, Engineering/Manufacturing Industrial Technologies**

**Curriculum Code: 1453  
(Effective Fall 2018 –  
Summer 2023)**

**Computer Networking and Cybersecurity A.B. Pathway**

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.

**For More Information**

Contact the Computer Information Technologies Program in the West Campus Building, Room M103, telephone number (517) 267-6406 or Academic Advising Department, Gannon Building – StarZone, telephone number (517) 483-1904.

<b>Semester I</b>	<b>Course Title</b>	<b>Prerequisites</b>	<b>Credit/Billing Hours</b>
<b>Math Core Area - <i>Select 1</i></b>			
STAT 170	Introduction to Statistics	(Minimum 2.0 in MATH 105 or MATH 106 or above or Math Level 5) and Reading Level 5 and Writing Level 4	4 / 4
<b>Program of Study Requirements</b>			
CITF 110	Intro Computer Info Systems	Reading Level 4 and Writing Level 4	3 / 3
CITF 140	Information Technology Ethics	Reading Level 5 and Writing Level 6	3 / 3
CITN 120	Networking Concepts	Reading Level 4 and Writing Level 4	3 / 3
CITS 125	Computer Support: A+ Cert Prep	Reading Level 5 and Writing Level 4 and Math Level 3	6 / 6
<b>Credits</b>			<b>19 / 19</b>

Semester II	Course Title	Prerequisites	Credit/Billing Hours
<b>Writing Core Area - <i>Select 1</i></b>			
ENGL 127	Business Writing	Reading Level 5 and Writing Level 6 or (Reading Level 4 and Writing Level 4 and ENGL 099 concurrently)	3 / 3
<b>Program of Study Requirements</b>			
CITF 120	Operating Systems Concepts	Reading Level 5	3 / 3
CITN 220 <i>(1<sup>st</sup> 8 weeks)</i>	Introduction to Networks	Minimum 2.0 in CITS 125 and Reading Level 5 and Writing Level 6 and Math Level 4	3 / 3
CITN 225 <i>(2<sup>nd</sup> 8 weeks)</i>	Routing & Switching Essentials	Minimum 2.0 in (CITN 220 within 2 years or concurrently) and Reading Level 5 and Writing Level 6 and Math Level 4	3 / 3
CITN 250	Microsoft Network Server	Minimum 2.0 in (CITF 120 or CITS 125) and Reading Level 5 and Writing Level 6 and Math Level 3	3 / 3
CITP 110	Intro to Programming-Python	Reading Level 5 and Math Level 4	4 / 4
<b>Credits</b>			<b>19 / 19</b>
Semester III	Course Title	Prerequisites	Credit/Billing Hours
<b>Science Core Area - <i>Select 1</i></b>			
ISCI 131	Integrated Physical Science	Reading Level 5 and Writing Level 6 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	4 / 6
<b>Program of Study Requirements</b>			
CITF 240	IT Project Management	Minimum 2.0 in (CITF 110 or CITS 125) and Reading Level 4 and Writing Level 4	3 / 3
CITN 230	Linux/UNIX Operating System	Minimum 2.0 in ((CITF 120 or CITS 125) and (CITN 220 or CITS 225)) and Reading Level 5 and Writing Level 6 and Math Level 3	3 / 3

**Additional Computer Courses - *Select 1 or 2***

*6 credits are required from these electives. 1 or 2 classes can be taken this semester. If a student chooses to take 2, this requirement is fulfilled and no additional electives will need to be take in Semester IV.*

CITN 222	Wireless Networking & Security	Minimum 2.0 in CITS 125 and Reading Level 5 and Writing Level 6 and Math Level 4	3 / 3
CITN 240 <i>(1<sup>st</sup> 8 weeks)</i>	Scaling Networks	Minimum 2.0 in (CITN 225 within 2 years) and Reading Level 5 and Writing Level 6 and Math Level 4	3 / 3
CITN 244	Securing Networking Devices	Minimum 2.0 in CITN 225 and Reading Level 5 and Writing Level 6 and Math Level 4	3 / 3
CITN 245 <i>(2<sup>nd</sup> 8 weeks)</i>	Connecting Networks	Minimum 2.0 in (CITN 240 within 2 years or concurrently) and Reading Level 5 and Writing Level 6 and Math Level 4	3 / 3
CITN 253	Networking with Windows Server	Minimum 2.0 in CITN 250 and Reading Level 5 and Writing Level 6 and Math Level 3	3 / 3
CITS 285	IT Professional Internship	Department Approval	3 / 3
<b>Credits</b>			<b>13-16 / 15-18</b>
<b>Semester IV</b>	<b>Course Title</b>	<b>Prerequisites</b>	<b>Credit/Billing Hours</b>
<b>Communication Core Area - <i>Select 1</i></b>			
COMM 110	Oral Comm in the Workplace	Reading Level 5 and Writing Level 6 or (Reading Level 4 and Writing Level 4 and ENGL 099 concurrently)	3 / 3
COMM 120	Dynamics of Communication	Reading Level 5 and Writing Level 6	3 / 3
COMM 130	Fund of Public Speaking	Reading Level 5 and Writing Level 6	3 / 3
<b>Global Perspectives and Diversity Core Area - <i>Select 1</i></b>			
MGMT 234	Diversity in the Workplace	Reading Level 5 and Writing Level 6	3 / 3

<b>Program of Study Requirements</b>			
BUSN 118	Introduction to Business	Reading Level 5 or (Reading Level 4 and ENGL 099 concurrently) and Writing Level 4	3 / 3
CITN 280	IT Security Foundations	Minimum 2.0 in (CITN 220 or CITS 225) and Reading Level 5 and Writing Level 6 and Math Level 3	3 / 3
<b>Additional Computer Courses - <i>Select 0 or 1</i></b> <i>(Courses may not be duplicated – If 2 electives are taken in Semester III, no additional electives are required here)</i>			
CITN 222	Wireless Networking & Security	Minimum 2.0 in CITS 125 and Reading Level 5 and Writing Level 6 and Math Level 4	3 / 3
CITN 240 <i>(1<sup>st</sup> 8 weeks)</i>	Scaling Networks	Minimum 2.0 in (CITN 225 within 2 years) and Reading Level 5 and Writing Level 6 and Math Level 4	3 / 3
CITN 244	Securing Networking Devices	Minimum 2.0 in CITN 225 and Reading Level 5 and Writing Level 6 and Math Level 4	3 / 3
CITN 245 <i>(2<sup>nd</sup> 8 weeks)</i>	Connecting Networks	Minimum 2.0 in (CITN 240 within 2 years or concurrently) and Reading Level 5 and Writing Level 6 and Math Level 4	3 / 3
CITN 253	Networking with Windows Server	Minimum 2.0 in CITN 250 and Reading Level 5 and Writing Level 6 and Math Level 3	3 / 3
CITN 256	Identity with Windows Server	Minimum 2.0 in CITN 253 and Reading Level 5 and Writing Level 6 and Math Level 3	3 / 3
CITS 285	IT Professional Internship	Department Approval	3 / 3
<b>Credits</b>			<b>12-15 / 12-15</b>
<b>Total Credits</b>			<b>66 / 68</b>