



Cybersecurity A.A.S.

Career Community: Computer Technology and Networking

Curriculum Code: 1832

Effective: Fall 2026 – Summer 2031

Purpose of the Major

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.

Major Required Courses – *A minimum grade of 2.0 is required for General Education courses.*

| <i>Course Code</i> | <i>Course Title</i> | <i>Credit / Billing Hours</i> |
|--------------------|---------------------------------|-------------------------------|
| ACAD 100 | First-Year Experience | 1 / 1 |
| 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 |

| <i>Course Code</i> | <i>Course Title</i> | <i>Credit / Billing Hours</i> |
|--|--|---|
| 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 110 or COMM 110 or COMM 120 or COMM 130 or COMM 200 or COMM 240 or COMM 260 or ENGL 122 or ENGL 132 | Helpdesk Support Specialist Communication in the Workplace Dynamics of Communication Fundamentals Public Speaking Small Group Communication Interpersonal Communication Nonverbal Communication Composition II Honors Composition II | 3 / 3 3 / 3 3 / 3 3 / 3 3 / 3 3 / 3 3 / 3 4 / 4 4 / 4 |
| CITS 125 | Computer Support: A+ Cert Prep | 6 / 6 |
| CITS 225 | Networking for PC Technicians | 3 / 3 |
| ENGL 121 or ENGL 124 or ENGL 127 or ENGL 131 | Composition I Technical Writing Business Writing Honors Composition I | 4 / 4 3 / 3 3 / 3 4 / 4 |
| MATH 120 or MATH 126 or MATH 141 or STAT 170 or STAT 215 | College Algebra Precalculus Calculus with Applications Introduction to Statistics Intro to Probability and Stats | 4 / 4 5 / 5 4 / 4 4 / 4 4 / 4 |

Notes:

ACAD 100 may be waived when students meet one of the following College-approved waiver criteria:

- Completion of 12 college-level credits with minimum grades of 2.0 shown on the LCC transcript (including transfer, if applicable), or
- Employment in the field of, or a field related to, the degree being sought, or
- For Health Careers students, successful completion of CHSE 100.

Students wishing to waive ACAD 100 should contact their advisor.

Students following specific articulation agreements with Eastern Michigan University in Cybersecurity choose STAT 170 or with Northwood University in Cybersecurity choose MATH

120. All other students considering future transfer should choose the highest MATH or STAT course into which they place to maximize options.

Major Required Courses, Limited Choice – Humanities and Fine Arts or Social Sciences or Applied Social Sciences - *Select one as recommended or select one from [LCC General Education Applied Degrees](#): Humanities and Fine Arts or Social Sciences or Applied Social Sciences. A minimum grade of 2.0 is required for General Education courses.*

| Course Code | Course Title | Credit / Billing Hours |
|-------------|-------------------------------|------------------------|
| ANTH 270 | Cultural Anthropology | 3 / 3 |
| ARTS 102 | 2D Design | 3 / 4 |
| ECON 201 | Principles of Economics-Micro | 4 / 4 |
| ECON 202 | Principles of Economics-Macro | 4 / 4 |
| GEOG 200 | World Regional Geography | 4 / 4 |
| MGMT 234 | Diversity in the Workplace | 3 / 3 |
| POLS 201 | Intro to Political Science | 3 / 3 |
| SOCL 120 | Introduction to Sociology | 4 / 4 |

Notes:

- Students considering future transfer, choose ANTH 270, GEOG 200, POLS 201, or SOCL 120.
- Students considering transfer to Eastern Michigan University in Cybersecurity, choose ANTH 270 or POLS 201.

Major Required Courses, Limited Choice – Natural Sciences or Applied Sciences and Technology Lab - *Select one lab course as recommended or select one from [LCC General Education Applied Degrees](#): Natural Sciences or Applied Sciences and Technology Lab. A minimum grade of 2.0 is required for General Education courses.*

| Course Code | Course Title | Credit / Billing Hours |
|-------------|-----------------------------|------------------------|
| BIOL 120 | Environmental Science | 4 / 6 |
| CHEM 135 | Chemistry in Society | 4 / 5 |
| GEOL 230 | Environmental Geology | 4 / 6 |
| ISCI 131 | Integrated Physical Science | 4 / 6 |
| PHYS 120 | The Art of Physics | 4 / 5 |

Notes:

- Students considering future transfer to Central Michigan University choose BIOL 120.
- Students considering future transfer to Eastern Michigan University in Cybersecurity choose ISCI 131.

Major Required Courses, Limited Choice – *Select one*

| Course Code | Course Title | Credit / Billing Hours |
|-------------|--------------------------------|------------------------|
| CITI 100 | AI Foundations | 3 / 3 |
| CITI 140 | Intro to Machine Learning | 3 / 3 |
| CITN 222 | Wireless Networking & Security | 3 / 3 |
| CITO 120 | Cloud Architecting with AWS | 3 / 3 |
| CITS 285 | IT Professional Internship | 3 / 3 |

General Education – Applied Degrees

- English Composition or Applied English
Major Required Courses meet this requirement
- English Composition (second course)/Communication or Applied Communication
Major Required Courses meet this requirement
- Humanities and Fine Arts or Social Sciences or Applied Social Sciences
Major Required Limited Choice Courses meet this requirement
- Mathematics or Applied Mathematics
Major Required Courses meet this requirement
- Natural Sciences Lab or Applied Science and Technology Lab
Major Required Limited Choice Courses meet this requirement

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 [Graduation 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 / 65 billing hours

Recommended Course Sequence

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| Semester I |
| ACAD 100 |
| CITP 110 |
| CITS 125 |
| ENGL 121 or ENGL 124 or ENGL 127 or ENGL 131 |
| MATH 120 or MATH 126 or MATH 141 or STAT 170 or STAT 215 |
| Semester II |
| CITF 140 |
| CITN 250 |
| CITO 100 |

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| Semester II |
| CITS 110 or COMM 110 or COMM 120 or COMM 130 or COMM 200 or COMM 240 or COMM 260 or ENGL 122 or ENGL 132 |
| CITS 225 |

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

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| Semester IV |
| CITC 282 |
| CITC 285 |
| CITC 287 |
| CITC 290 |
| Limited Choice - Humanities and Fine Arts or Social Sciences or Applied Social Sciences |

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.