As more organizations become globally connected, the need for individuals with knowledge in infrastructure and specifically cybersecurity is at an all time high. This program provides students with comprehensive knowledge and technical skills in scripting and automation, Local Area Networking, internetwork routing and switching, operating systems, cloud computing, and cybersecurity.

Successful associate degree graduates are qualified for positions as network administrators, system administrators, infrastructure support specialists, and cybersecurity specialists. Students considering transfer should see an advisor.

This degree program is designed to prepare students for the following internationally recognized certifications:

**Scripting and Automation:**
- Certiport Information Technology Specialist - Python

**Networking:**
- Certiport Information Technology Specialist - Networking
- CompTIA Network+® Certification
- Cisco Certified Network Associate (CCNA)

**Operating Systems:**
- CompTIA Server+® Certification
- CompTIA Linux+® Certification
- Microsoft - AZ-800 Certification

**Cloud Computing:**
- Certiport Information Technology Specialist - Cloud Computing
- CompTIA Cloud+® Certification

**Cybersecurity:**
- Certiport Information Technology Specialist - Network Security
- Certiport Information Technology Specialist - Cybersecurity
- CompTIA Security+® Certification
- CompTIA PentTest+® Certification
- CompTIA CySA+® Certification
- CompTIA CASP+® Certification

**Program Note**
- This program requires a minimum of 60 credits. *Courses tested out or waived must be replaced with approved program electives.*
# Course Sequence Guide

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>Year 1</strong></td>
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<tr>
<td><strong>Fall</strong></td>
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<tr>
<td>CIT 135</td>
<td>Introduction to Programming Using Python 1</td>
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<tr>
<td>CIT 112</td>
<td>Scripting and Automation</td>
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<tr>
<td>CIT 160</td>
<td>Cisco Internetworking I</td>
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<td>CIT 161</td>
<td>Cisco Internetworking II</td>
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<td>CIT 213</td>
<td>Networking Technologies 1</td>
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<tr>
<td>Math Competency 2</td>
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<tr>
<td>CIT 215</td>
<td>Server Technologies</td>
<td>3</td>
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<tr>
<td>CIT 240</td>
<td>Network Security Management 1</td>
<td>3</td>
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<tr>
<td>CIT 256</td>
<td>Linux Administration</td>
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<td>CIT 260</td>
<td>Cisco Internetworking III</td>
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<td>ENG 111</td>
<td>English Composition</td>
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<td><strong>Summer</strong></td>
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<tr>
<td>PHL 105</td>
<td>Critical Thinking 3</td>
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<tr>
<td>or PHL 202</td>
<td>Contemporary Ethical Dilemmas</td>
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<td>CIT 243</td>
<td>Cloud Technologies 1</td>
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<td>CIT 247</td>
<td>Windows Identity &amp; Policy</td>
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<tr>
<td>CIT 263</td>
<td>Cybersecurity Penetration Testing</td>
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<tr>
<td>CIT 264</td>
<td>Cybersecurity Analytics and Threat Analysis</td>
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<tr>
<td>ENG 112</td>
<td>English Composition 3</td>
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<tr>
<td>or ENG 220</td>
<td>Technical Writing</td>
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<td>CIT 249</td>
<td>Hybrid Cloud Technologies</td>
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<td>CIT 266</td>
<td>Advanced Enterprise Security 1</td>
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<td>Any Group 1 Science course with lab</td>
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<td><strong>Total Credits</strong></td>
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</table>

1. Certiport Information Technology Specialist certification exam included.
2. Placement into MTH 121 College Algebra or higher or completion of MTH 111 Intermediate Algebra – the four credits of MTH 111 Intermediate Algebra do not count toward total CIT program credits.
3. Students should take ENG 112 and PHL 202 if they plan to pursue the Ferris State University (FSU) CIT degree.

4. Students planning to take the internship class require department approval and are required to have a GPA of 3.0 in their CIT classes. It is also recommended that students have 20 credits in CIT classes and an overall GPA of 2.0. While a 3.0 GPA in CIT classes is required for this internship, an alternative, campus-based internship opportunity is available for students who do not meet this requirement.

5. ECO 201 Principles of Macroeconomics recommended.