COMPUTER INFORMATION TECHNOLOGY - INFRASTRUCTURE AND SECURITY, ASSOCIATE IN APPLIED SCIENCE DEGREE

NMC Code 125

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 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:

Foundation:

- Certiport Information Technology Specialist

Networking:

- CompTIA Network+® Certification
- Cisco Certified Network Associate (CCNA)

Operating Systems:

- CompTIA Linux+ ® Certification

Cloud Computing:

- CompTIA Cloud+ ® Certification

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.*

Requirements
Major Requirements

Course	Title	Credits
General Education Requirements		
ENG 111	English Composition	4
ENG 220	Technical Writing [3]	3-4
or ENG 112	English Composition	
PHL 105	Critical Thinking [3]	3
or PHL 202	Contemporary Ethical Dilemmas	
Math Competency [2]		
Any Group 1 Science course with a lab		4
Any Group 1 Social Sciences course [5]		3
Occupational Specialty Courses		
CIT 110	Programming Logic and Design	3
CIT 112	Scripting and Automation [1]	3
CIT 160	Cisco Internetworking I	3
CIT 161	Cisco Internetworking II	3
CIT 213	Networking Technologies [1]	4
CIT 215	Windows Server Environment	3
CIT 240	Network Security Management [1]	3
CIT 243	Cloud Technologies	3
CIT 246	Windows Server Infrastructure	3
CIT 247	Enterprise Solutions	3
CIT 256	Linux Administration	3
CIT 260	Cisco Internetworking III	3
CIT 263	Security ASMT. and Compliance	3
CIT 264	Security Analytics & Assurance	3
CIT 266	Advanced Enterprise Security	3
CIT 290	CIT Internship [4]	3
Total Credits		**66-67**

[1] Certiport Information Technology Specialist certification exam included.

[2] Placement into MTH 121 (https://catalog.nmc.edu/archives/2021-2022/search/?P=MTH%20121) College Algebra or higher or completion of MTH 111 (https://catalog.nmc.edu/archives/2021-2022/search/?P=MTH%20111) Intermediate Algebra – the four credits of MTH 111 (https://catalog.nmc.edu/archives/2021-2022/search/?P=MTH%20111) 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 (https://catalog.nmc.edu/archives/2021-2022/search/?P=ECO%20201) Principles of Macroeconomics recommended.

Course Sequence Guide

Course	Title	Credits
Year 1		
Fall		
CIT 110	Programming Logic and Design	3
CIT 112	Scripting and Automation [1]	3
CIT 160	Cisco Internetworking I	3
CIT 161	Cisco Internetworking II	3
CIT 213	Networking Technologies [1]	4

Math Competency [2]		
Credits		**16**
Spring		
CIT 215	Windows Server Environment	3
CIT 256	Linux Administration	3
CIT 240	Network Security Management [1]	3
CIT 260	Cisco Internetworking III	3
ENG 111	English Composition	4
Credits		**16**
Summer		

PHL 105
  or PHL 202
	Critical Thinking [3]
	  or Contemporary Ethical Dilemmas
		3

Credits		**3**
Year 2		
Fall		
CIT 246	Windows Server Infrastructure	3
CIT 263	Security ASMT. and Compliance	3
CIT 264	Security Analytics & Assurance	3

ENG 112
  or ENG 220
	English Composition [3]
	  or Technical Writing
		4

Any Group 1 Social Sciences course [5]		3
Credits		**16**
Spring		
CIT 243	Cloud Technologies	3
CIT 247	Enterprise Solutions	3
CIT 266	Advanced Enterprise Security	3
Any Group 1 Science course with lab		4
Credits		**13**
Summer		
CIT 290	CIT Internship [4]	3
Credits		**3**
Total Credits		**67**

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