

Computer Networking and Information Technology AS Major - Active

Department: Computer Networking & Information Technology

Approval: September 2016

Effective Semester: Spring 2017

The Associate of Science degree with a major in Computer Networking and Information Technology (CNIT) provides students with a solid foundation of skills, knowledge and hands on experience with the core areas of the field of Computer Networking and Information Technology as well as current trends and technologies used in the computer industry. The topics covered in this major include Computer Hardware, Computer Network Administration, Network Security and the basics of Internet and Web development, as well as an option in one of the following areas: Computer Technical Support, Internet and Web Development Techniques, Network Security, Wireless Networks, Cisco Networking, or Microsoft Windows Administration. This degree qualifies students for employment in entry-level network administration, computer technical support or web development positions.

Learning Outcomes

Upon completion of this program, students will be able to:

- Evaluate computer hardware components and design a functional computer system.
- Demonstrate the use of network devices, network operating systems and networking models and their related protocols.
- Develop and maintain a basic web site using web development industry standards.
- Explain the basics of network security systems.
- Demonstrate competency in one of the required optional areas (see program description).

Optional competency areas:

- Computer Technical Support: Troubleshoot and repair defective computer systems
- Internet and Web Development Techniques: Recognize and use appropriate web development technologies to promote or enhance the work environment
- Network Security: Develop strategies for network defense using firewalls, routers, switches, antivirus, anti-spyware tools, and hacking techniques
- Wireless Networks: Evaluate components to prepare and install wireless networks
- Cisco Networking: Configure and operate Cisco Local and Wide Area Networking hardware and software
- Microsoft Windows: Install and support a Microsoft Windows networking environment including Windows Server, SQL Server database and Windows Desktop edition

Assuming students start this AS with transfer-level math and English eligibility, the minimum time for completion is 4 semesters. Completion time will vary based on student preparation and number of units completed per semester.

Courses Required for the Major in Computer Networking and Information Technology AS

Course	Units
Core courses:	
CNIT 103 - Computer Hardware	3.00
CNIT 131 - Internet Basics and Beginning HTML	3.00

CNIT 120 - Network Security	3.00
Total:	9.00
Choose one of the following network courses:	
CNIT 106 - Introduction to Networks	3.00
CNIT 201C - Introduction to Cisco Networks	3.00
Total:	3.00
Choose one of the following options	
OPTION 1: Computer Technical Support	
CNIT 104 - Operating Systems Technologies	3.00
CNIT 105 - IT Customer Support	3.00
CNIT 401 - Windows 10 Technical Support	3.00
CNIT 103L - Computer Hardware Lab	1.00
or	
CNIT 105L - Computer Technical Support	1.00
OPTION 2: Internet and Web Development Techniques	
CNIT 132 - Intermediate HTML and CSS	3.00
CNIT 133 - JavaScript, jQuery, AJAX	3.00
CNIT 134 - Server Side Technologies for the Web	3.00
OPTION 3: Network Security	
CNIT 121 - Computer Forensics	3.00
CNIT 122 - Firewalls	3.00
CNIT 123 - Ethical Hacking & Network Defense	3.00
OPTION 4: Wireless Networks	
CNIT 107 - Wireless LANs	3.00
CNIT 113 - Technology of Smartphones & Mobile Devices	3.00
CNIT 108 - Wireless Networks, Advanced	3.00
OPTION 5: Cisco Networking	
CNIT 202C - Routing and Switching Essentials	3.00
CNIT 203C - Scaling Networks	3.00
CNIT 204C - Connecting Networks	3.00
OPTION 6: Microsoft Windows	
CNIT 411 - Administering Windows Server	3.00
CNIT 412 - Configuring Advanced Windows Server	3.00
CNIT 401 - Windows 10 Technical Support	3.00
or	
CNIT 415 - SQL Server Administration	3.00
Total:	9.00 - 10.00
Total:	21.00 - 22.00

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