

# Information Technology

## Network Systems Development (CCNA)

### Associate in Applied Science



#### Program Description:

The Cisco Networking Academy at Mountwest Community & Technical College offers Cisco Certified Network Associate (CCNA) training that prepares individuals to install, configure, and operate LAN, WAN, and dial access services for enterprise organizations with networks from 100 to more than 500 nodes. Concepts laboratory exercises focus on IP, Ethernet based LANs, Frame Relay and Serial WANs, interior routing protocols such as RIP and IGRP and exterior protocols such as BGP. The Cisco Networking Academy Program is a comprehensive-learning program that provides students with the IT skills essential in a global economy. The Networking Academy delivers web-based content, online assessment, student performance tracking, hands-on labs, instructor support, and preparation for the CCNA industry-standard certifications.

#### Career Outlook:

The U.S. Department of Labor states that Network Systems and Data Communications Analysts will see an increase in employment growth of 53.36% between 2008 and 2018. The computer systems design and related services industry is expected to be one of the top-ten fastest growing industries in the U.S. economy, projected to add more than 115,800 jobs between 2008 and 2018. Professionals and specialists will see the best prospects for employment because they have the higher level skills necessary to stay abreast of rapid changes in technology. ([http://www.bls.gov/emp/ep\\_table\\_103.htm](http://www.bls.gov/emp/ep_table_103.htm)).

#### Salary Forecast:

In a 2006-2007 Salary Survey conducted by TCP Magazine (<http://tcpmag.com/salariesurveys/>), CCNA's reported average annual salaries of \$47,070 for individuals with at least three years of experience. The U.S. Department of Labor listed the Huntington, WV - Ashland, KY Metropolitan Area average annual wage for Network Systems and Data Communications Analysts at \$48,940 ([http://stats.bls.gov/oes/current/oes\\_26580.htm#b15-0000](http://stats.bls.gov/oes/current/oes_26580.htm#b15-0000))

#### Program Admission Requirements:

The college adheres to an open admission policy which means applicants with a high school diploma or a GED are eligible for admission. Applicants with neither a high school diploma nor a GED may be admitted on a conditional basis.

#### Career Description:

The U.S. Department of Labor states that Network Systems and Data Communications Analysts analyze, design, test, and evaluate network systems, such as local area networks (LAN), wide area networks (WAN), Internet, intranet, and other data communications systems; perform network modeling, analysis, and planning; research and recommend network and data communications hardware and software. This includes telecommunications specialists who deal with the interfacing of computer and communications equipment. Analysts may supervise computer programmers. (<http://stats.bls.gov/oes/current/oes151081.htm>).

#### Contact Information:

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**Major Code – CI20 • Concentration Code – CI25 Network Systems Development (CCNA)**

<b>FIRST YEAR</b>	
<p><b>Fall Semester<sup>1</sup></b></p> <p>ENL 111 Written Communication ..... 3</p> <p>IT 101/102 Fundamentals of Computers<sup>1</sup> (EDGE) ..... 3</p> <p>IT 120 Network Operating Systems ..... 4</p> <p>IT 131 Introduction to Networking (EDGE) ..... 4</p> <p>MAT Approved Math Elective * ..... 3</p> <p><b>TOTAL CREDITS..... 17</b></p>	<p><b>Spring Semester</b></p> <p>COM 112 Oral Communication ..... 3</p> <p>IT 141 Networking Systems II<sup>2</sup> (EDGE) ..... 4</p> <p>IT 221 Advanced Operating Systems<sup>3</sup> ..... 3</p> <p>SS 210 Fundamentals of Sociology ..... 3</p> <p>Approved IT Elective ..... 3</p> <p><b>TOTAL CREDITS ..... 16</b></p>
<b>SECOND YEAR</b>	
<p><b>Fall Semester</b></p> <p>ENL 231 Technical Report Writing<sup>6</sup> ..... 3</p> <p>IT 224 Fundamentals of Network Security ..... 3</p> <p>IT 231 Networking Systems III<sup>4</sup> (EDGE) ..... 4</p> <p>IT 270 Computer Essentials and Applications ..... 4</p> <p>Approved Math/Science Elective ..... 3</p> <p><b>TOTAL CREDITS..... 17</b></p>	<p><b>Spring Semester</b></p> <p>IT 225 Fundamentals of Wireless LANs<sup>7</sup> ..... 4</p> <p>IT 241 Networking Systems<sup>5</sup> (EDGE) ..... 4</p> <p>IT 277 Management Information Systems<sup>9</sup> ..... 3</p> <p>IT 299 Information Technology Internship<sup>8</sup> ..... 3</p> <p><b>TOTAL CREDITS ..... 14</b></p>
<b>HOURS REQUIRED FOR GRADUATION: 64</b>	

**Employment Opportunities:**

- Network administrator
- Network engineer
- Systems support technician
- Network designer
- Network security systems designer

**Earn A Degree Graduate Early (EDGE):**

This program provides students the opportunity to receive credit for their high school EDGE courses.

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1. Students are expected to have basic knowledge of computers including operating systems such as Windows 2003 or XP and Microsoft Office 2003 or XP before entering this program. The student must register for IT 101 during his or her first semester or successfully pass a challenge exam for IT 101.

2. IT 141 has a prerequisite or co-requisite of IT 131.

3. IT 221 has a prerequisite of IT 120 or IT 131.

4. IT 231 has a prerequisite of IT 141 and a co-requisite of IT 241.

5. IT 241 has a prerequisite or co-requisite of IT 231.

6. ENL 231 has a prerequisite ENL 111 or COM 111.

7. IT 225 has a prerequisite of IT 141.

8. Permission of Program Coordinator is required in order to enroll in IT 299.

9. IT 277 to be taken in last semester or permission.