Bridge to Careers in Information Technology: Networking

Course Overview

The information technology industry is continually seeking high-skilled workers in one or more specialized fields. The Workforce Access *Bridge to Careers in Information Technology: Networking* online course is aimed at helping learners develop an understanding of the industry-specific competencies needed for careers in networking, and to build the academic and workplace skills needed for success in postsecondary or career training. Students are introduced to the skills that are the foundation for careers in the following sectors of the networking industry:

- Network Systems: network architects, network systems administrators, network systems engineers, and other analysts or systems specialist jobs
- Information Support Services: network support, wireless network administrators and engineers, and information technology assistants
- Programming and Software Development: network programming, software engineers and developers, and system programmers

Learning Outcomes

While taking this course, students will learn to:

- Identify various network features
- Describe how the layers of the OSI and TCP/IP models function
- Explain the purpose of virtual networks
- Discuss the purpose and properties of routing and switching
- Describe the aspects of planning and implementing a basic home network
- Understand the installation and configuration of a wireless network
- Categorize standard connector types based on network media
- Identify the appropriate hardware and software tools to troubleshoot connectivity issues
- Discuss common network threats and vulnerabilities
- Recognize common security threats to wireless networks, and describe the methods of network access security
- Develop reading for information, locating information, and applied mathematics skills contexualized to the information technology industry

Modes of Course Delivery

The *Bridge to Careers in Information Technology: Networking* course can be used as a core curriculum or as a supplement to enhance regular instruction. Because of this flexibility, the course can be delivered in a self-paced or a customized mode. Custom mode allows instructors to assign lessons and assessments and set the pace for the course.

Pacing and Course Duration

Sample 10-week and 12-week pacing guides are provided in the Teacher Planning Guide. The pacing guides can be used as is or adapted to account for shorter or longer terms to suit individual needs. Each of the lessons requires approximately 40-50 minutes of study. Additional academic skill support lessons, discussion prompts, and writing activities can be used to enhance students' learning.

Assessments and Reporting

Assessments for the course include interactive formative assessments within each lesson, as well as scored pretests and posttests for each lesson. Teachers and students can generate reports to show progress and mastery of industry and academic knowledge of skills.

How to Access *Bridge to Careers in Information Technology: Networking*

When you order *Bridge to Careers in Information Technology: Networking*, you will access everything you need in the ConnectED Learning Management System, including the core lessons, academic skill support lessons, teacher planning guide, lesson plans, and other useful resources. For more information on this or other *Workforce Access* courses, please go to **www.workforceaccess.com**.

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