Bridge to Careers in Information Technology: Security

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: Security* online course is aimed at helping learners develop an understanding of the industry-specific competencies needed for careers in security, 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 information technology industry:

- Network Systems: network security system architects, network security engineers, and general network security positions
- Information Support Services: information security support analysts, information security analysts, and general security analyst positions
- Web and Digital Communications: Internet security specialists, security solutions architects, and cloud security specialists
- Programming and Software Development: security coders, and application, data and host security specialists

Learning Outcomes

While taking this course, students will learn to:

- Discuss major events in information security through the years
- Recognize the difference between cyber-criminals and cyber-terrorists
- Understand methods of preventing or mitigating hardware- and software-based attacks
- Discuss the importance of buffer overflow and SQL injection protection
- Discuss methods for conducting network vulnerability assessments
- Distinguish between risk, detection, deterrence, and mitigation
- Discuss how changing requirements affect encryption technology
- Describe the elements of a business continuity plan
- Describe how a disaster recovery plan is developed as part of a business continuity plan
- Identify standards organizations and regulatory agencies that affect computer 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: Security* 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 individual 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: Security*

When you order *Bridge to Careers in Information Technology: Security*, 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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