Health Information Networking

Opportunity

Healthcare providers are rapidly adopting electronic health records (EHRs) for patients and implementing digital systems for healthcare services. These changes are expected to improve overall patient care and quality of service and significantly streamline healthcare management with far-reaching consequences.

Jobs in healthcare information and communications technology (ICT) are expected to be in high demand as more healthcare organizations make the transition to digital health records. Skilled workers will be needed to create and maintain integrated healthcare networks.

In response to this growing demand, the Cisco Networking Academy® program now offers a course to promote skills development in the field of healthcare ICT and networking.

Solution

The Networking Academy™ Health Information Networking course complements our core Cisco CCNA® curriculum and is designed for students seeking entry-level ICT careers in the healthcare industry. It provides an introduction to networking in the healthcare environment and equips students with the networking knowledge and skills to design, implement, monitor, and troubleshoot networks that support EHR systems in small to medium-sized healthcare environments (Figure 1).
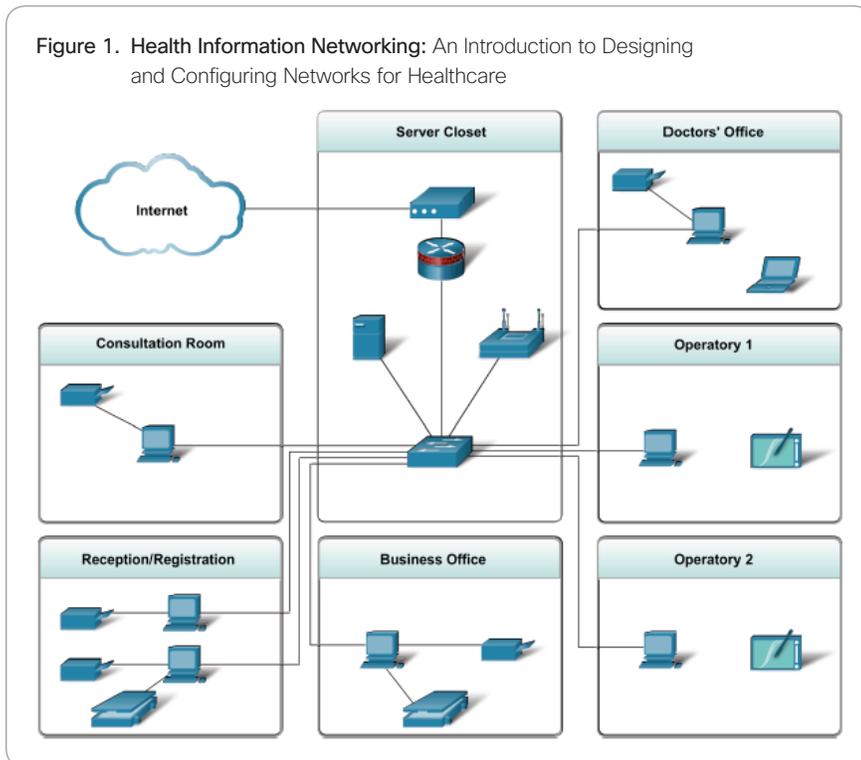
Who Should Enroll	Prerequisites
• Students who hope to expand their networking skills with healthcare ICT and networking skills • Students who want to prepare for entry-level specialized ICT careers in the healthcare industry	• Basic PC and Internet navigation skills • Students should meet the following criteria or demonstrate equivalent networking knowledge and experience: » **Completed the first two Cisco CCNA® Routing and Switching courses:** Introduction to Networks, and Routing and Switching Essentials

Course Description

Health Information Networking equips students with knowledge that can be applied toward entry-level specialist careers in healthcare ICT and networking. The course aims to develop an in-depth understanding of the skills needed to specialize in healthcare network implementations.

Healthcare systems and regulations vary by country and region. The Health Information Networking course contains some content that is specific to the U.S. healthcare system. This content is clearly labeled in the course. Academies offering this course to students outside the United States can supplement or replace this U.S.-specific content with locally relevant healthcare information.

Various hands-on labs throughout the course help students gain practical experience, including procedural and troubleshooting labs, skills integration challenges, and model building. Most chapters also include Cisco® Packet Tracer skills integration challenges.

Learning Environment

Health Information Networking can be delivered as an extension to the CCNA curricula, as an independent curriculum, or integrated into a broader course of study, such as technology or continuing education programs. The curriculum can be offered in an in-person or a blended distance learning (BDL) environment.

Figure 1. Health Information Networking: An Introduction to Designing and Configuring Networks for Healthcare

Course Outline

No.	Chapter Title	Goal
1	Healthcare in the United States	Provide basic knowledge about healthcare in the United States
2	Electronic Health Records (EHRs)	Help students prepare for a typical implementation of an electronic health records system; including adjusting the medical practice workflow
3	Designing Healthcare Networks	Describe how information technology is used in healthcare
4	Designing the Medical Group LAN	Describe the factors and processes that go into designing a network for a medical group
5	Designing and Implementing WAN Services	Explain how to implement WAN services for a medical group and its branches
6	Securing a Healthcare Information Network	Describe the unique requirements and solutions for protecting healthcare information and networks
7	Supporting the Medical Group Network	Explain how to support, maintain, and troubleshoot a medical group network
8	Putting It All Together	Reinforce the concepts learned in this course through a culminating activity

Upon completion of the Health Information Networking course, students will be able to perform the following tasks:

· Explain the protocols, safety procedures, and privacy considerations for working in a healthcare environment

· Explain how the use of healthcare ICT applications affects network design

· Describe the purpose, function, and main components of an EHR system

· Identify the requirements for implementing an EHR system

· Describe the workflow of a medical practice and how that workflow must be adjusted for implementation of an EHR system

· Describe security and design considerations when implementing or connecting to a data center

· Integrate wireless security and design considerations into a medical group network

· Prototype a small to medium-sized healthcare IT network design prior to implementation

· Build and maintain a network to support an EHR system in a small to medium-sized healthcare environment

· Enable remote access and WAN services in a medical group network

· Implement WAN services and secure the network edge for an EHR system

· Troubleshoot, remotely monitor, and manage a small to medium-sized medical group network

Careers

Health Information Networking helps students prepare for entry-level specialized ICT careers in the healthcare industry, including health information network administrator and network technician careers in physicians' offices and hospitals, or with other healthcare service providers.

Cisco Networking Academy

In partnership with schools and organizations around the world, the Cisco Networking Academy program delivers a comprehensive learning experience to help students develop ICT skills for entry-level career opportunities, continuing education, and globally recognized career certifications. The courses also help students build 21st century skills such as collaboration and problem solving by encouraging practical application of knowledge through hands-on activities and network simulations.

Networking Academy teaches ICT skills to students from virtually every socioeconomic background and region of the world. Students gain the skills needed to pursue networking careers in a variety of industries such as technology, healthcare, and financial services. Students also gain access to a global support group, career developments tools, and social networking resources to help them become architects of the human network.

For More Information

To learn more about Cisco Networking Academy, visit cisco.netacad.com.

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