Real Training. Real Practice. Real Results.

Network Administration

Prerequisites

It is not required that students have specific expertise with regards to network administration, however, a four year degree from an accredited university is preferred.

Program Goals

The Network Administration Certificate program is designed to prepare students for a career managing and maintaining computer networks. Successful graduates will gain the necessary skills to design, organize, install and troubleshoot networks utilizing Microsoft Windows Server 2008 operating systems, the Microsoft Exchange email messaging system, Cisco technologies, Linux networking technologies and automation tools such as Windows PowerShell. The student will also be trained to design and maintain a local area network (LAN). This program introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, participants will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

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Professional Objectives

The objective of the program is to teach the student the planning, implementation, maintenance and management of a computer network. During the course of the program, the student will be able to:

- Apply knowledge of hardware concepts, standards, software tools, equipment and best practices to properly administer the computer network.
- Design, develop and implement security policies to protect the IT resources.
- Develop management procedures for effective application of network technologies to business needs.
- Incorporate customer service and tech support skills for effective network administration.
- Ensure appropriate ethical considerations are used during network administration activities.
- Evaluate troubleshooting techniques while repairing network hardware and software problems.
- Support networks by performing periodical computer hardening to keep data secure.

Core Courses

- ISA 1001 Certified Secure Computer User | 16 hours
- NET 1002 Introduction to Networking | 40 hours
- ISA 1002 Introduction to Cyber Security | 48 hours
- ISA 1003 ITIL Foundation | 24 hours
- CLO 1001 Introduction to Cloud Computing | 40 hours
- NET 1003 Introduction to Routing and Switching | 40 hours
- ISA 1011 Introduction to Network Security | 40 hours
- NET 1006 Introduction to Linux | 40 hours
- **Total Program Clock Hours | 288**

Learning Outcomes

Upon completion of this program, the graduate will be able to:

- Design effective network models by considering aspects like cabling, topology and computer infrastructure.
- Configure router interface parameters for Ethernet, WAN facilities, frame relay, ISDN and ATM.
- Interconnect switches to VLANs using trunks and configure LAN switches to supply local connectivity to servers.
- Implement best practices for IPS, VPN and firewall technologies to keep the network secure.
- Deploy and maintain perimeter security in networks along with threat control for layer 2 attacks.
- Use Linux architecture, including GNU and UNIX commands, for configuring workstation and network.
- Monitor and administer network security to determine the necessary incident response and disaster recovery plan.

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