

Microsoft Certified System Engineer 2003 (MCSE)

700 hours

Course Overview/Description

The Microsoft Certified Systems Engineer Security course on Microsoft Windows® 2003 training certification ensures IT professionals the knowledge and skill to design, plan, and implement security on the Microsoft platform and as part of a secure computing environment. The MCSE: Security training and certification will allow IT professionals to demonstrate security-specific skills appropriate to the systems engineer, which includes designing, planning, and implementing security on Windows 2003 .Net Platform. In addition, this certification will allow individuals to show proficiency with Microsoft Internet Security. The MCSE credential is one of the most widely recognized technical certifications in the industry, a credential in high demand. By earning the premier MCSE credential, individuals are demonstrating that they have the skills necessary to lead organizations in the successful design, implementation, and administration of the most advanced Microsoft Windows platform and Microsoft server products.

Course Objectives

Upon successful completion of the following courses, the student should

- Identify the tasks involved in supporting Windows 2003 networks.
- Understand how networking concepts are implemented in Windows 2003.
- Configure Microsoft Windows 2003 Professional on stand-alone computers and on client computers that are part of a workgroup or domain.
- Install and configure Windows 2003 Server.
- Install, configure, manage and support a network infrastructure that uses Microsoft Windows 2003 server.
- Install, configure and administer the Microsoft Window 2003 Active Directory service.
- Gain the knowledge and skills necessary to design a Microsoft Windows 2003 directory services infrastructure.
- Understand the strategies needed to design the Active Directory structure of an organization, and then design the Active Directory structure to meet those needs.

- Gain skills needed to create a networking services infrastructure design that supports the required network applications.
- Learn network solution technologies: including DHCP, IP, OSPF, RIP, and IGMP.
- Gain the knowledge and skills needed to design a security framework for small, medium, and enterprise networks by using Microsoft Windows 2003 technologies.
- Be prepared to take Microsoft exams 70-290 - Managing and Maintaining a Microsoft Windows Server 2003 Environment, 70-291 - Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure, 70-293 - Planning and Maintaining a Microsoft Windows Server 2003 Network Infrastructure, 70-294 - Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure, 70-270 - Installing, Configuring, and Administering Microsoft Windows® XP Professional, 70-298 - Designing Security for a Microsoft Windows Server 2003 Network, 70-284 Implementing and Managing Microsoft Exchange Server 2003

Course Outline

I. Microsoft Windows XP Professional Administration and Maintenance

- A. Windows XP Installation
- B. Windows XP Installation Automated
- C. Hardware Configuration
- D. Disk Management
- E. File System Configuration and Management
- F. Troubleshooting and Disaster Recovery
- G. Desktop Configuration
- H. TCP/IP Addressing Configuration and Name Resolution
- I. Windows XP Configuration in Microsoft Network
- J. Remote User Management
- K. Mobile Computer Management
- L. System Resource and Performance Monitoring

II. Microsoft Windows Server 2003 Environment Management and Maintenance

- A. An Overview of Account and Resource Administration
- B. User and Computer Account Management
- C. Group Management
- D. Resource Access Management
- E. Printer Implementation

- F. Printer Management
- G. Object Access Management
- H. Group Policy Implementation
- I. Group Policy Management
- J. Administrative Templates and Audit Policy Implementation
- K. Server Administration Preparation
- L. Server Performance Monitoring Preparation
- M. Server Performance
- N. Device Driver
- O. Disk Management
- P. Data Storage Management
- Q. Disaster Recovery
- R. Software Maintenance Using the Software Update Service

III. Microsoft Windows Server 2003 Network Services Management

- A. Introducing the TCP/IP Protocol
- B. Assigning IP Addresses in a Multiple Subnet
- C. Configuring a Client IP Address
- D. Configuring a Client for Name Resolution
- E. Isolating Common Connectivity Issues
- F. Using Routing and Remote Access to Configure Routing
- G. Using Dynamic Host configuration Protocol to Allocate IP Addresses
- H. Managing and Monitoring Dynamic Host Configuration Protocol (DHCP)
- I. Name Resolution
- J. Host Name Resolution Using Domain Name System (DNS)
- K. Domain Name System (DNS) Management and Monitoring
- L. NetBIOS Name Resolution Using Windows Internet Name Service (WINS)
- M. Using IPsec and Certificates to Secure Network Traffic
- N. Network Access Configuration
- O. Network Access Management and Monitoring

IV. Microsoft Windows Server 2003 Network Services Planning and Maintenance

- A. Network Infrastructure Planning, Tools, and Documentation
- B. TCP/IP Physical and Logical Network Planning and Optimization
- C. Routing and Switching: Planning and Troubleshooting
- D. DHCP: Planning, Optimization and Troubleshooting
- E. Developing a DNS Strategy
- F. DNS Optimization and Troubleshooting
- G. WINS Planning and Optimization
- H. Effective IPsec Planning and Troubleshooting

- I. Network Access Planning
- J. Network Access Troubleshooting
- K. Network Infrastructure Planning

V. Microsoft Windows Server 2003 Active Directory Strategy and Implementation

- A. An Overview of Active Directory Infrastructure
- B. Active Directory Forest and Domain Implementation
- C. Organizational Unit Structure Implementation
- D. User, Group, and Computer Account Implementation
- E. Group Policy Implementation
- F. Using Group Policy to Deploy and Manage Software
- G. Managing Active Directory Replication via Sites
- H. Placing Domain Controllers
- I. Operations Masters Management
- J. Active Directory Maintenance

VI. Microsoft Exchange Server 2003 Administration and Maintenance

- A. Installation and Upgrading
- B. Configuration and Management
- C. Security
- D. Recipient Management
- E. Public Folder Management
- F. Address List Management
- G. Using Internet Protocols to Implement and Manage Client Access
- H. Client Configuration and Connectivity Management
- I. Routing Management
- J. Management of Mobile Devices
- K. Data Storage and Hardware Management
- L. Disaster Recovery
- M. Maintaining your Exchange Server 2003
- N. Migrating to Exchange 2003 from Exchange 5.5

VII. Microsoft Windows Server 2003 Network Security Design

- A. An Overview of Designing Security
- B. Developing a Network Security Plan
- C. Network Security Threat Identification
- D. Security Risk Analysis
- E. Developing a Security Design for Physical Resources
- F. Developing a Security Design for Computers
- G. Developing a Security Design for Accounts



- H. Developing a Security Design for Authentication
- I. Developing a Security Design for Data
- J. Developing a Security Design for Data Transmission
- K. Developing a Security Design for Network Perimeters
- L. Designing a Response Strategy for Security Incidents

Prerequisites/Audience

Students will need experience using DOS, experience in computer networking, familiarity with basic networking protocols, strong Windows 95/98/2000/03/XP Explorer interface skills, the ability to install and configure hardware, software and device drivers. Experience supporting end users in a network environment and experience supporting NT Workstation, NT Server or Novell NetWare are also recommended. Students should also have experience with networking protocols, including TCP/IP.

PC Requirements/Materials Included

This course is compatible with Windows Vista Operating System.

It is Highly Recommended that students have a high speed internet connection (DSL or Cable) -Programs are only compatible with Microsoft Operating System and Internet Explorer.

Following is the list of software that must be downloaded:

- Adobe Acrobat Reader version 5
- Excel Viewer
- Internet Explorer 6
- WindowsMedia Player 7.1 for WIN 98. WIN 2000 and WIN Me
- RealOne Player
- PowerPoint Viewer
- Word Viewer
- WinZip 8

Hardware requirements:

Minimum Monitor: 15" Super VGA Monitor (minimum) 17" is best
Minimum Processor: Pentium 300 or better
Network Adapter: 10 base T
Minimum RAM: At least 128MB
Minimum Hard Drive: At least 4 GB



Minimum CD Drive: CD-ROM drive (24x or greater)
Minimum Sound Card: 16 Bit
Minimum Video Adaptor: At least 8MB
Sound: Headsets (Microphone optional)
Minimum Screen Resolution: 800 x 600 true color (1024 x 768 is best)
Minimum Operating System: Windows 98 or Windows 2000 Professional
Internet Connection: Cable modem or ADSL

The materials included with this course are:

- Microsoft Curriculum textbooks
- Access to an online IT Library.

Instructor Bio

Chris Lobban brings his industry experience with an extensive assortment of hardware and software solutions. Before starting at Academy of Learning he had worked both in a Help Desk environment and as a Quality Assurance Analyst, where he had to deal with a wide array of different hardware requirements, operating systems, and computer programs every day. This broad experience base, added to his formal training as a Computer Networking and Technical Support Specialist from Seneca College, gives him the training and experience needed to provide support to his students. Chris has also certified his experience by earning the CompTIA A+ IT Technician, Network+, Server+ and Security+ credentials, as well as the Microsoft MCSE (Windows Server 2003), MCSA (Windows Server 2003) and MCDST (Windows XP) credentials.