



## Microsoft Certification

### What Is Microsoft Certified Systems Engineer (MCSE)

Microsoft Certified Systems Engineer (or MCSE) is the best-known certification. As of 2006, the MCSE is available for two different products, Windows 2000 and Windows Server 2003, with different sets of exams. Some Windows 2000-level exams are considered applicable to the Windows Server 2003 track.

For both tracks, candidates must pass a design exam and elective exams (for Windows 2000, one design and two electives, for Windows 2003, one of each), for a total of seven exams. The topic of these exams include network security, computer network infrastructure, Active Directory, Microsoft Exchange, Microsoft SQL Server, and other topics of both general networking interest as well as specific Microsoft products. Complete course lasts 450 hours.

MCSE Certification Exam: Exa

### Exam 70-016 Designing and Implementing Desktop Applications with Microsoft Visual C++ 6.0

#### Preparation Tools and Resources

We make a wealth of preparation tools and resources available to you, including courses, books, practice tests, and Microsoft Web sites. When you are ready to prepare for this exam, here's where you should start.

Instructor-led Courses for This Exam

\* Course 1011: Mastering MFC Fundamentals Using Microsoft Visual C++

\* Course 1012: Mastering COM Development Using Microsoft Visual C++

70-016 Exam 70-08 1	Designing and Implementing Desktop Applications with Microsoft Visual C++ 6.0 Implementing and Supporting Microsoft Exchange Server 5.5
Exam 70-2 10 Exam 70-2 15	Installing, Configuring, and Administering Windows 2000 Professional Installing, Configuring, Administering Windows 2000 Server
Exam 70-2 17	Implementing and Administering a Windows 2000 Directory Services Infrastructure
Exam 70-2 18 Exam 70-223 Exam 70-296 Exam 70-305	Managing a Microsoft Windows 2000 Network Environment Installing, Configuring, and Administering Microsoft Clustering Services by Using Microsoft Windows 2000 Advanced Server Planning, Implementing, and Maintaining a Microsoft Windows Server 2003

	Environment for an MCSE Certified on Windows 2000 Exam Microsoft's Visual Studio .NET
Exam 70-306	Developing and Implementing Windows-based Applications with Microsoft Visual Basic .NET and Microsoft Visual Studio .NET exam
Exam 70-3 10	

\* Course 1015: Mastering MFC Development Using Microsoft Visual C++ **Exam 70-081  
Implementing and Supporting Microsoft Exchange Server 5.5**

To achieve MCSE (Microsoft Certified Systems Engineer) status, the certification candidate is required to take and pass four core exams, one core elective exam, and two elective exams. Implementing and Supporting Microsoft Exchange Server 5.5 exam (70- 081) is one of several elective exams offered as part of the MCSE certification process.

This certification exam measures the candidate's ability to implement, administer, and troubleshoot information systems that incorporate Microsoft Exchange Server version 5.5 or Exchange Server 5.5 with Service Pack 1. Before taking the exam, the candidate should be proficient in the following job skills:

- \* Planning
- \* Installation and Configuration
- \* Configuring and Managing Resource Access
- \* Monitoring and Optimization
- \* Troubleshooting

**Preparation Guide for Exam 70-215**

**Installing, Configuring, and Administering Microsoft Windows 2000 Server**

We make a wealth of preparation tools and resources available to you, including courses, books, practice tests, and Microsoft Web sites. When you are ready to prepare for this exam, here's where you should start.

Instructor-led Courses for This Exam

Course 1560: Updating Support Skills from Microsoft Windows NT 4.0 to Microsoft Windows 2000

Course 2151: Implementing and Administering Microsoft Windows 2000 Directory Services

Course 2152: Implementing Microsoft Windows 2000 Professional and Server

**Course 1560: Updating Support Skills from Microsoft Windows NT 4.0 to Microsoft Windows 2000**

Introduction

This course is to provide Microsoft Windows NT 4.0 support professionals with the knowledge and skills necessary to support Microsoft Windows 2000-based networks. This is a performance-based course, designed around the job-related tasks a support professional must perform using new or modified features in the Windows 2000 operating system.

**Student Materials**

The course materials are yours to keep.

You will be provided with the following software for use in the classroom:

Microsoft Windows 2000 Advanced Server

Module 1: Installing Microsoft Windows 2000

## Topics

The Windows 2000 platform

Preparing for installation

Installing Windows 2000 from a compact disc

Installing Windows 2000 over a network

Identifying solutions to setup problems

Automating installations by using the Windows 2000 Setup Manager Wizard

Automating installations by using disk duplication

Labs

Installing Windows 2000

Skills

Students will be able to:

Identify the operating systems that are included in the Microsoft Windows 2000 platform.

Identify the differences between Microsoft Windows NT operating systems and

Microsoft

Windows 2000 operating systems.

Prepare for an installation of Windows 2000.

Install Windows 2000 from a compact disc.

Describe how to install Windows 2000 over a network.

Troubleshoot setup failures and recommend likely solutions.

Describe how to automate installations of Windows 2000 by using the Windows 2000

Setup Manager Wizard.

Describe how to automate installations of Windows 2000 by using disk duplication.

Module 2: Implementing DNS in Windows 2000

Topics

Installing the DNS Server service

Configuring zones in Windows 2000

Testing the DNS Server service

Labs

Installing and configuring the DNS Server service

Skills

Students will be able to:

Install the DNS Server service.

Configure zones in Windows 2000.

Test the DNS Server service.

Module 3: Installing Active Directory

Topics

Introduction to Active Directory

Logical structure

Physical structure

Specific domain controller roles

Installing Active Directory

Verifying Active Directory installation

Managing single master operations

Using the domain administrator account

Labs

Installing Active Directory

## Skills

Students will be able to:

Describe the role of Active Directory in Windows 2000.

Describe the logical structure of Active Directory.

Describe the physical structure of Active Directory.

Describe the roles of global catalog servers and operations masters in Active Directory.

Install Active Directory.

Verify Active Directory installation.

Manage single master operations by transferring and seizing single master operations roles.

Describe guidelines for using the domain Administrator account.

## Module 4: Creating the Physical Structure of Active Directory

### Topics

Exploring the physical structure of Active Directory

Implementing the physical structure of Active Directory

Monitoring replication traffic

### Labs

Creating sites and subnets

### Skills

Students will be able to:

Describe the physical structure of Active Directory, including sites, site links, subnets, connection and server objects, replication within a site and between sites, and replication protocols..

Modify the physical structure by creating sites, subnets, site links, site link bridges, connection objects, and global catalog servers, and by moving server objects between sites.

Monitor replication traffic.

### Day 2

## Module 5: Administering Active Directory

### Topics

Creating and managing Active Directory objects

Managing groups

Controlling access to Active Directory objects

Adding object attributes to the global catalog

Delegating administrative control of Active Directory objects

### Labs

Creating organizational units and user accounts

Setting up groups

Examining Active Directory security and delegating control

### Skills

Students will be able to:

Create organizational units, user accounts, and computer accounts.

Create and modify groups.

Explain how to control access to objects in Active Directory by using permissions.

Add object attributes to the Global Catalog.

Delegate administrative control of objects in Active Directory to support security-enhanced

decentralized administration.

## Module 6: Upgrading a Network to Windows 2000

### Topics

Upgrade overview  
Upgrading client computer operating systems  
Upgrading member servers  
Establishing the forest root  
Upgrading primary domain controllers  
Upgrading backup domain controllers  
Switching from mixed mode to native mode  
Labs  
Upgrading your Windows NT 4.0 network to Windows 2000  
Skills

Students will be able to:

Describe the network upgrade process.  
Upgrade Windows client operating systems to Windows 2000.  
Upgrade members' servers to Windows 2000.  
Establish the forest root for the Windows 2000 Active Directory directory service.  
Upgrade domain controllers to Windows 2000.  
Switch a domain from mixed mode to native mode.

Day 3

Module 7: Deploying Windows 2000 Professional by Using Remote Installation Services

Topics

Examining Remote Installation Services  
Installing an RIS Server

Configuring remote installation options  
Deploying images by using RIS  
Creating an Remote Installation Preparation (RiPrep) image  
Comparing CD-based images and RiPrep images  
Identifying solutions to RIS problems  
Labs  
Deploying Windows 2000 Professional by Using Remote Installation Services  
Skills

Students will be able to:

Describe the remote installation process.  
Install and configure an RIS server.  
Modify RIS configurations.  
Deploy CD-based RIS images.  
Create RiPrep images.  
Compare CD-based and RiPrep images.  
Provide solutions to potential RIS problems.

Module 8: Using Group Policy to Manage Desktop Environments

Topics

Introduction to Group Policy  
Applying Group Policy  
Examining the Group Policy interface  
Configuring the registry by using Group Policy  
Assigning scripts by using Group Policy  
Redirecting folders by using Group Policy  
Guidelines for implementing Group Policy  
Labs

## Implementing Group Policy

Implementing administrative template and script policy

Implementing folder redirection policy

Skills

Students will be able to:

Explain the capabilities and structure of Group Policy, including Group Policy objects (GPOs), Group Policy containers (GPCs), and Group Policy templates (GPTs).

Apply Group Policy by creating a GPO, managing the access permissions of GPOs, and managing the inheritance of GPOs through the structure of the Active Directory directory service.

Configure Group Policy settings for administrative templates, scripts, and folder redirection.

Explain the guidelines for implementing Group Policy.

## Module 9: Using Group Policy to Manage Software

Topics

Examining software deployment

Exploring software management technologies

Examining the software life cycle

Deploying software

Upgrading software

Removing software

Managing software

Identifying solutions to software deployment problems

Labs

Publishing and assigning software

Upgrading and removing software

Skills

Students will be able to:

Explain how Software Installation and Maintenance technology makes software deployment more efficient.

Explain how the Windows 2000 Software Installation and Maintenance technology uses Group Policy and Windows Installer to manage software.

Explain the four phases of the software life cycle: preparation, deployment, maintenance, and removal.

Use Group Policy to deploy software.

Use Group Policy to upgrade software.

Use Group Policy to remove software.

Explain how to manage software by configuring deployment options, managing file extension associations, and assigning software categories.

Explain how to troubleshoot common problems with software deployment.

Day 4

## Module 10: Installing and Configuring Terminal Services

Topics

Introduction to Terminal Services

Planning the Terminal Services installation

Installing Terminal Services and Terminal Services client software

Configuring Terminal Services for clients

Establishing a Terminal session

Installing applications on a Terminal server

Labs

Installing Terminal Services

Installing an application

## Skills

Students will be able to:

- Describe the purpose and use of Terminal Services.
  - Plan a Terminal Services installation.
  - Install Terminal Services and Terminal Services client software.
  - Configure Terminal Services for a multiple session environment.
  - Establish a Terminal session
  - Install applications on a Terminal server.
- ### Module 11: Configuring Remote Access

#### Topics

- Exploring new protocols
- Configuring outbound connections
- Configuring inbound connections
- Examining remote access policies
- Examining remote access policy evaluation
- Creating a remote access policy
- Implementing demand-dial routing
- Implementing connection sharing
- Configuring Network Address Translation (NAT)

#### Labs

- Configuring a virtual private network (VPN) connection
- Creating a remote access policy and profile

#### Skills

Students will be able to:

- Describe the new protocols that Windows 2000 supports.
- Configure outbound connections in Windows 2000.
- Configure inbound connections in Windows 2000.
- Explain remote access policy and profile concepts.
- Evaluate remote access policies and profiles.
- Create and configure a remote access policy and profile.
- Install and configure demand-dial routing.
- Install and configure connection sharing.
- Install and configure NAT.

### Module 12: Securing Windows 2000

#### Topics

- Securing the logon process
- Helping protect desktops and services by using Group Policy
- Helping protect network traffic by using Internet Protocol Security (IPSec)
- Helping protect files by using Encrypting File System (EFS)

#### Labs

- Implementing security policy
- Implementing IPSec
- Encrypting files with EFS

#### Skills

Students will be able to:

- Help protect log on by using smart cards.
- Help protect workstations and services by using Group Policy.
- Help protect network traffic by using IPSec.
- Help protect data files by using EFS.

## Module 13: Supporting DHCP and WINS

### Topics

New DHCP functionality

Authorizing a DHCP server in Active Directory

Examining dynamic update of DNS name servers

Configuring DHCP scopes in Windows 2000

Examining options classes

Examining Automatic Private IP Addressing

New WINS functionality

### Labs

Supporting DHCP in Windows 2000

### Skills

Students will be able to:

Describe new DHCP functionality.

Authorize a DHCP server in the Active Directory directory service.

Explain dynamic update of DNS name servers.

Configure DHCP scopes in Windows 2000.

Explain the purpose and function of option classes.

Explain how Automatic Private IP Addressing works.

Describe new WINS functionality.

### Day 5

## Module 14: Managing File Resources

### Topics

Sharing and publishing file resources

Creating a Distributed file system (Dfs)

Exploring NTFS permissions

Managing disk quotas

### Labs

Publishing a folder in Active Directory

Creating a Dfs

Configuring disk quotas

### Skills

Students will be able to:

Share and publish file resources.

Create a distributed file system.

Explain how to use NTFS permissions.

Manage disk quotas.

## Module 15: Performing Disk Management

### Topics

Windows 2000 disk storage types

Using Disk Management

Creating dynamic volumes

Performing common disk management tasks

### Labs

Working with dynamic storage



## Skills

Students will be able to:

Define Windows 2000 disk storage types.

Explain how to use Disk Management.

Create dynamic volumes.

Explain how to perform common disk management tasks.

## Module 16: Implementing Disaster Protection

### Topics

Disaster protection features in Windows 2000

Using fault-tolerant volumes

Examining advanced startup options

Examining the Recovery Console

Using the Backup utility

### Labs

Implementing fault-tolerant volumes

Using the Backup utility to restore Active Directory

## Skills

Students will be able to:

Summarize the disaster-protection features in Windows 2000.

Create Windows 2000 fault-tolerant volumes.

Explain Windows 2000 advanced startup options.

Explain how to use the Windows 2000 Recovery Console.

Restore the Active Directory directory service using the Backup utility in Windows 2000.

## **Course 2152: Implementing and Administering Microsoft Windows 2000 Directory Services**

Syllabus and sample modules for Course 2152

### Introduction

This course provides students with the knowledge and skills necessary to install and configure Microsoft Windows 2000 Professional on stand-alone and client computers that are part of a workgroup or domain. In addition, this course provides the skills and knowledge necessary to install and configure Windows 2000 Server to create file, print, Web, and Terminal servers. It also provides students with the prerequisite knowledge and skills required for Course 2153—Implementing a Microsoft Windows 2000 Network Infrastructure.

### Student Materials

The course materials are yours to keep.

You will be provided with the following software for use in the classroom:

Microsoft Windows 2000 Advanced Server

Microsoft Windows 2000 Professional

### Course Outline

#### Day 1

Module 1: Installing or Upgrading to Windows 2000

#### Topics

Preparing for Installation

Installing Windows 2000 Professional from a Compact Disc

Installing Windows 2000 Advanced Server from a Compact Disc

Upgrading to Windows 2000 Professional

Upgrading to Windows 2000 Advanced Server

## Identifying Setup Errors

### Lab

#### Installing Windows 2000

#### Skills

Students will be able to:

Prepare for a Windows 2000 installation.

Install Windows 2000 Professional from a compact disc.

Install Windows 2000 Advanced Server from a compact disc.

Upgrade to Windows 2000 Professional.

Upgrade to Windows 2000 Advanced Server.

Identify setup errors.

## Module 2: Configuring the Windows 2000 Environment

### Topics

Configuring and Managing Hardware

Configuring Display Options

Configuring System Settings

Configuring the Desktop Environment

Configuring Internet Options for Client Computers

### Labs

Creating and Using Hardware Profiles

Modifying Startup and Recovery Options

Configuring Internet Options

### Skills

Students will be able to:

Configure and manage hardware.

Configure display options.

Configure system settings.

Configure the desktop environment.

Configure Internet options.

## Module 3: Connecting Windows 2000—based Clients to Networks

### Topics

Windows 2000 Connectivity

Connecting to a Microsoft Network

Connecting to a Novell NetWare Network

### Labs

Configuring and Testing IP Addresses

Installing and Configuring Gateway (and Client) Services for NetWare

### Skills

Students will be able to:

Describe connectivity in Windows 2000.

Connect to a Microsoft network.

Connect to a Novell NetWare network.

### Day 2

## Module 4: Creating and Managing User Accounts

Introduction to User Accounts

Guidelines for New User Accounts

Creating Local User Accounts  
Creating and Configuring Domain User Accounts  
Setting Properties for Domain User Accounts  
Customizing User Settings with User Profiles  
Best Practices

Labs

Creating Local User Accounts  
Creating and Modifying Domain User Accounts  
Skills

Students will be able to:

Describe the purpose of user accounts.  
Identify the guidelines for new user accounts.  
Create local user accounts.  
Create and configure domain user accounts.  
Set properties for domain user accounts.  
Customize user settings with user profiles.  
Identify best practices for creating and configuring user accounts.

Module 5: Managing Access to Resources by Using Groups

Topics

Introduction to Windows 2000 Groups  
Implementing Groups in a Workgroup  
Implementing Groups in a Domain

Best Practices

Lab

Creating a Global Group

Skills

Students will be able to:

Identify how groups function and their characteristics.  
Implement groups in a workgroup.  
Implement groups in a domain.  
Identify best practices for implementing groups.

Module 6: Managing Data by Using NTFS

Topics

Introduction to NTFS Permissions  
How Windows 2000 Applies NTFS Permissions  
Using NTFS Permissions  
Using Special NTFS Permissions  
Compressing Data on an NTFS Partition  
Configuring Disk Quotas on NTFS Partitions  
Securing Data by Using EFS

Labs

Using NTFS Permissions  
Configuring Disk Compression and Quotas  
Securing Files by Using EFS

Skills

Students will be able to:

Describe NTFS permissions.  
Explain how Windows 2000 applies NTFS permissions.  
Use NTFS permissions.

Grant special NTFS permissions.  
Compress data on an NTFS partition.  
Configure disk quotas on NTFS partitions.  
Help protect data by using Encrypting File System (EFS).

Day 3

Module 7: Providing Network Access to File Resources

Topics

Introduction to Shared Folders

Creating Shared Folders

Combining NTFS and Shared Folders Permissions

Using Administrative Shared Folders

Publishing a Shared Folder in Active Directory

Configuring Shared Folders by Using Dfs

Labs

Sharing and Securing Network Resources

Configuring Domain-based Dfs

Skills

Students will be able to:

Explain the purpose and use of shared folders.

Create shared folders.

Combine NTFS permissions and shared folder permissions.

Use administrative shared folders.

Publish a folder in the Active Directory directory service.

Configure shared folders by using Distributed file system (Dfs).

Module 8: Monitoring and Optimizing Performance in Windows 2000

Topics

Monitoring Event Logs

Using Task Manager to Monitor System Resources

Using System Monitor to Monitor System Performance

Using Alerts

Optimizing Performance

Labs

Using Task Manager and Event Viewer

Monitoring System Performance

Skills

Students will be able to:

Monitor event logs to monitor information about system operations.

Use Task Manager to monitor system resources.

Use System Monitor to monitor system performance.

Use alerts to notify a user or an administrator when certain system criteria are met or exceeded.

Identify counters to monitor for optimizing performance.

Module 9: Implementing Security in Windows 2000

Topics

Helping Protect Desktops and Services by Using Security Policies

Auditing Access to System Resources

Labs

## Configuring Windows 2000 Security Settings

### Configuring Auditing

#### Skills

Students will be able to:

Help protect desktops and services by using security policies.

Audit access to system resources.

#### Day 4

## Module 10: Configuring Printing

### Topics

Introduction to Windows 2000 Printing

Adding a Printer

Configuring a Network Printer

Configuring Internet Printing

### Labs

Installing Printers on a Print Server

Installing a Client Printer and Managing Printers

### Skills

Students will be able to:

Identify the requirements for setting up a network printer.

Add a shared printer on a print server and set up client computers to print.

Configure a network printer on a print server.

Configure Internet printing.

## Module 11: Configuring Windows 2000 for Mobile Computing

### Topics

Configuring Hardware for Mobile Computing

Configuring Power Management Options for Mobile Computing

Making Files Available for Offline Use

Connecting to Networks and Computers

Identifying Solutions to Mobile Computing Problems

### Labs

Configuring Power Management Options

Configuring Offline Files

### Skills

Students will be able to:

Configure hardware for mobile computing.

Configure power management options for mobile computing.

Make files available offline by configuring client computers and the server.

Connect to computers and networks remotely.

Identify solutions to mobile computing problems.

## Module 12: Configuring and Managing Disks

### Topics

Windows 2000 Disk Types

Creating Partitions on a Basic Disk

Creating Volumes on a Dynamic Disk

Performing Common Disk Management Tasks

Best Practices

### Labs

Working with Dynamic Disks  
Creating and Mounting a New Volume  
Skills

Students will be able to:

Describe disk types in Windows 2000.

Create partitions on a basic disk.

Create volumes on a dynamic disk.

Perform common disk management tasks.

Apply best practices for configuring and managing disks.

Day 5

Module 13: Implementing Disaster Protection

Topics

Introduction to Disaster Protection

Configuring an Uninterruptible Power Supply

Implementing Fault Tolerance by Using RAID

Backing Up and Restoring Data

Using Disaster Recovery Tools

Labs

Implementing Fault-Tolerant Volumes

Backing Up and Restoring System State Data

Skills

Students will be able to:

Describe the purpose of disaster protection and recovery.

Configure an uninterruptible power supply.

Provide data redundancy with fault-tolerant volumes.

Back up and restore data in Windows 2000.

Use disaster recovery tools.

Module 14: Installing and Configuring Terminal Services

Topics

Introduction to Terminal Services

Planning the Installation

Installing Terminal Services

Configuring Terminal Services

Establishing a Terminal Session

Configuring Session Settings

Installing Applications on a Terminal Server

Labs

Installing Terminal Services

Installing an Application

Skills

Students will be able to:

Describe the purpose and use of Terminal Services.

Plan a Terminal Services installation.

Install Terminal Services.

Configure Terminal Services.

Establish a Terminal session.

Configure session settings.

Install applications on a Terminal server.

Module 15: Implementing Windows 2000 Clients Topics

Deploying Windows 2000

Performing a Manual Network Installation

Customizing Installations and Upgrades by Using Switches

Installing Windows 2000 Using the Setup Manager Wizard

Using Disk Duplication

Installing Windows 2000 Using RIS

Troubleshooting Windows 2000 Setup

Labs

Creating an Answer File for an Unattended Installation

Running the System Preparation Tool

Skills

Students will be able to:

Describe the primary deployment methods for Windows 2000.

Perform a manual network installation of Windows 2000.

Customize installations and upgrades using switches.

Use the Setup Manager wizard.

Describe the process of disk duplication.

Perform a remote installation of Windows 2000.

Troubleshoot Windows 2000 setup.

Module 16: Implementing Windows 2000—based Servers

Topics

Common Implementation Features

Implementing a File Server

Implementing a Print Server

Implementing an Application Server

Implementing a Web Server

Routine Administration Tasks

Skills

Students will be able to:

Describe common implementation features.

Implement a file server.

Implement a print server.

Implement an application server.

Implement a Web server.

Describe routine administration tasks.

**Syllabus and sample modules for Course 2153**

### **Introduction**

This course is for support professionals who are new to Microsoft Windows 2000 and will be responsible for installing, configuring, managing, and supporting a network

infrastructure that uses the Microsoft Windows 2000 Server products. It also provides students with the prerequisite knowledge and skills required for Course 2154, Implementing and Administering Microsoft Windows 2000 Directory Services.

### **Topics**

Overview of the Windows 2000 Network Infrastructure

Introduction to Intranets

Identifying Remote Access Methods  
Communicating with Remote Offices  
Providing Internet Access  
Introduction to Extranets

### **Exam 70-218- Managing a Microsoft Windows 2000 Network Environment**

Instructor-led Courses for This Exam

Course 1594: Installing and Configuring Microsoft Windows 2000 File, Print, and Web Servers

Course 2028: Basic Administration of Microsoft Windows 2000

Course 2126: Managing a Microsoft Windows 2000 Network Environment

Course 2150: Designing a Secure Microsoft Windows 2000 Network

Course 2151: Microsoft Windows 2000 Network and Operating System Essentials

Course 2152: Implementing Microsoft Windows 2000 Professional and Server

Course 2153: Implementing a Microsoft Windows 2000 Network Infrastructure

Course 2154: Implementing and Administering Microsoft Windows 2000 Directory Services

Course 2295: Implementing and Supporting Microsoft Internet Information Services 5.0

### **Course 1594: Installing and Configuring Microsoft Windows 2000 File, Print, and Web Servers**

Introduction

This course is designed to teach value-added providers, system builders, and Information Technology (IT) administrators, how to install and configure Microsoft Windows 2000

Server as a file, print and Web server. For in-depth training on this topic, students should attend Course 1560, Upgrading Support Skills from Microsoft Windows NT 4.0 to Microsoft Windows 2000 or Course 2152, Implementing Microsoft Windows 2000 Professional and Server.

#### **Course Materials**

The course materials are yours to keep.

You will be provided with an evaluation copy of Microsoft Windows 2000 Advanced Server

Course Outline

Module 1: Introduction to Microsoft Windows 2000 File, Print, and Web Servers

Topics:

Introduction to Windows 2000

Benefits of upgrading an existing server to Windows 2000

Benefits of a file server running Windows 2000

Benefits of a print server running Windows 2000

Benefits of a Web server running Windows 2000

Benefits of Active Directory

Skills:

Students will be able to:

Describe the Windows 2000 operating systems.

Describe the benefits of upgrading an existing server to Windows 2000.

Explain the benefits that a file server running Windows 2000 offers to a Windows NT 4.0 network.



Explain the benefits that a print server running Windows 2000 offers to a Windows NT 4.0 network.

Explain the benefits that a Web server running Windows 2000 offers to a Windows NT 4.0 network.

Describe the benefits of Active Directory.

Module 2: Installing and Upgrading to Windows 2000 Advanced Server

Topics:

Preparing for Windows 2000 Advanced Server

Installing Windows 2000 Advanced Server

Upgrading to Windows 2000 Advanced Server

Lab:

Installing Windows 2000 Advanced Server

Skills:

Students will be able to:

Describe how to prepare for a Windows 2000 Advanced Server installation or upgrade.

Describe how to install Windows 2000 Advanced Server.

Describe how to upgrade an existing server to Windows 2000 Advanced Server.

Module 3: Configuring File and Print Servers

Topics:

Configuring a file server

Configuring disks

Configuring shared resources

Configuring a print server

Installing and sharing network printers

Configuring Web-based printing

Lab:

Configuring a File Server

Configuring a Print Server

Skills:

Students will be able to:

Configure a file server.

Configure disks.

Configure shared resources.

Configure a print server.

Install and share network printers.

Configure Web-based printing.

Module 4: Configuring Web Services

Topics:

What is IIS?

Preparing for an IIS installation

Installing IIS

Configuring a Web site

Lab:

Configuring a Web Site

Skills:

Students will be able to:

Describe the use of ITS.

Prepare for an ITS installation.

Install ITS.

Configure a Web site.

Module 5: Enhancing File and Print Servers with Active Directory

Topics:

Concepts of Microsoft Windows 2000 Active Directory

Introduction to Active Directory

Enhancing file servers with Active Directory

Enhancing print servers with Active Directory

Skills:

Students will be able to:

Describe the purpose and structure of Active Directory.

Integrate Active Directory with a file server.

Integrate Active Directory with a print server.

**Course 2028: Basic Administration of Microsoft Windows 2000**

### **Introduction**

This course provides students with the knowledge and skills necessary to perform administration tasks in a single-domain Microsoft Windows 2000 network. This course is suitable for people with no prior experience in system administration.

### **Course Outline**

Day 1

Module 1: Introduction to Windows 2000 Administration

Topics:

Introduction to Network Administration

Introduction to Windows 2000 Networks

Gaining Access to Network Resources

Using Administrative Tools

Using the Domain Administrator Account

Using Windows 2000 Help

Skills:

After completing this module, students will be able to:

List tasks performed by a network administrator.

Describe the purpose of domains, organizational units, and the Active Directory directory service in a Windows 2000 network.

Describe how users log on to a Windows 2000 network.

Explain how to create a custom Microsoft Management Console (MMC) console.

Explain how to use the Run As command to perform administrative tasks.

Explain how to use Windows 2000 Help to find information.

Module 2: Setting Up User Accounts

Topics:

Introduction to User Accounts

Requirements for New User Accounts

Creating a Domain User Account

Setting Password Requirements  
Setting Properties for User Accounts  
Best Practices

Labs:

Setting up User Accounts  
Setting Personal Properties  
Modifying User Accounts

Skills:

After completing this module, students will be able to:

Describe the purpose of user accounts.  
Determine the requirements for a new user account.  
Create domain user accounts.  
Set password requirements for user accounts.  
Set properties for user accounts.  
Create a template for new user accounts.

Module 3: Using Groups to Organize User Accounts

Topics:

Introduction to Groups  
Implementing Group Strategies  
Implementing Groups  
Implementing Local Groups  
Implementing Built-in Groups

Best Practices

Lab:

Creating Groups  
Using Built-in Groups

Skills:

After completing this module, students will be able to:  
Describe the key features of groups.  
Apply group strategies to manage access to resources.  
Create and delete groups.  
Implement local groups.  
Implement built-in groups.

Day 2

Module 4: Administering File Resources

Topics:

Using NTFS Permissions  
How Windows 2000 Applies NTFS Permissions  
Granting NTFS Permissions  
Copying and Moving Files and Folders  
Sharing Resources  
Creating Shared Folders  
NTFS Permissions and Shared Folders  
Troubleshooting Access Problems

Best Practices

Lab:

Granting NTFS Permissions  
Managing NTFS Permissions

## Sharing and Securing Network Resources

### Skills:

After completing this module, students will be able to:

Describe the use of NTFS permissions to control access to files and folders.

Describe how permissions apply to files and folders.

Grant NTFS file and folder permissions to user accounts and groups.

Describe how copying and moving files and folders affects NTFS file and folder permissions.

Use shared folders to provide access to network file resources.

Create shared folders.

Describe the result of using NTFS permissions to control access to resources contained in shared folders.

Troubleshoot problems accessing files and folders.

## Module 5: Administering User Accounts

### Topics:

Finding User Accounts

Administering User Accounts

Managing User Profiles

Creating Home Folders

Introduction to Group Policies

Troubleshooting User Accounts

Best Practices

### Labs:

Administering User Accounts

Administering User Profiles

### Skills:

After completing this module, students will be able to:

Use Active Directory to find user accounts.

Administer user accounts.

Manage user profiles and roaming user profiles.

Create home folders.

Describe Group Policy and its effect on user accounts, groups, and computers.

Troubleshoot user accounts.

## Module 6: Administering Printer Resources

### Topics:

Introduction to Administering Printers

Managing Printer Permissions

Managing Printers

Managing Documents in the Print Queue

Administering Printers by Using a Web Browser

Best Practices

### Labs:

Administering a Printer

Redirecting a Printer

Using a Web Browser to Administer Printers

### Skills:

After completing this module, students will be able to:

Identify printing components and perform basic administrative tasks, such as sharing and locating printers on a network.

Identify and grant printer permissions.

Manage printers.

Manage documents in a print queue.

Administer printers by using a Web browser.

Module 7: Managing Data Storage

Topics:

Managing Data Compression

Managing Disk Quotas

Encrypting Data

Using Disk Defragmenter

Troubleshooting Data Storage

Labs:

Compressing Files and Folders

Setting Disk Quotas

Defragmenting Hard Disks

Skills:

After completing this module, students will be able to:

Manage data compression.

Manage disk quotas.

Manage data encryption.

Defragment NTFS file system partitions.

Troubleshoot data storage.

Day 3

Module 8: Remote Administration of Shared Folders

Topics:

Introduction to Monitoring Shared Folders

Monitoring Shared Folders on Remote Computers

Administering Shared Folders on Remote Computers

Lab:

Administering Shares on a Remote Computer

Skills:

After completing this module, students will be able to:

Describe how to monitor shared folders.

Monitor shared folders.

Administer shared folders.

Module 9: Monitoring Event Logs

Topics:

Introduction to Monitoring Event Logs

Monitoring Security Events

Analyzing Security Events

Monitoring System and Application Events

Viewing Event Logs

Managing Event Logs

Best Practices

Lab:

Monitoring Event Logs

Skills:

After completing this module, students will be able to:

Describe monitoring events in Windows 2000.  
Monitor security events.  
Analyze security events.  
Monitor system and application events.  
View events in event logs.  
Manage event logs.

#### Module 10: Backing Up and Restoring Data

Topics:

Introduction to Backing Up and Restoring Data

Preparing to Back Up Data

Backing Up Data

Restoring Data

Best Practices

### **Course 2126: Managing a Microsoft Windows 2000 Network Environment**

Introduction

The goal of this five-day, instructor-led course is to provide the knowledge required by system administrators, network administrators, and IT professionals who implement, manage, and troubleshoot existing network and server environments based on the Microsoft Windows 2000 operating system.

These skills are generally required in medium to large organizations that maintain 200 to 26,000 user desktops and servers, spanning two to 100 physical locations by using local area networks (LANs) and the Internet or intranets. Additionally, this course provides the skills and knowledge that Microsoft Certified Systems Administrator (MCSA) certification candidates need to prepare for Microsoft Certified Professional Exam 70-218: Managing a Microsoft Windows 2000 Network Environment.

Student Materials

The student kit includes a comprehensive workbook and other necessary materials for this class.

The following software is provided in the student kit:

Microsoft Windows 2000 Professional (Evaluation copy)

Microsoft Windows 2000 Advanced Server 120 (Evaluation copy)

### **Course 2150: Designing a Secure Microsoft Windows 2000 Network**

Introduction

This course provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks by using Microsoft Windows 2000 technologies. This course contains four units that describe how to help protect specific areas of the network:

Unit 1, Providing Security-Enhanced Access to Local Network Users

Unit 2, Providing Security-Enhanced Access to Remote Users and Remote Offices Unit 3,

Providing Security-Enhanced Access Between Private and Public Networks Unit 4, Providing Security-Enhanced Access to Partners

### **Course Materials**

The course materials are yours to keep.

You will be provided with the following software for use in the classroom:

Windows 2000 Advanced Server

Network Monitor 2.0 (for classroom use)

### **Course 2151: Microsoft Windows 2000 Network and Operating System Essentials**

Introduction

This course is to provide individuals who are new to Microsoft Windows 2000 with the knowledge necessary to understand and identify the tasks involved in supporting Windows 2000 networks. This is an introductory course designed to provide an overview of networking concepts and how they are implemented in Windows 2000.

### **Course Materials**

The course materials are yours to keep.

You will be provided with evaluation versions of the following software in the classroom:

Microsoft Windows 2000 Advanced Server

Microsoft Windows 2000 Professional

### **Course 2152: Implementing Microsoft Windows 2000 Professional and Server**

#### **Introduction**

This course provides students with the knowledge and skills necessary to install and configure Microsoft Windows 2000 Professional on stand-alone and client computers that are part of a workgroup or domain. In addition, this course provides the skills and knowledge necessary to install and configure Windows 2000 Server to create file, print, Web, and Terminal servers. It also provides students with the prerequisite knowledge and skills required for Course 2153—Implementing a Microsoft Windows 2000 Network Infrastructure.

### **Student Materials**

The course materials are yours to keep.

You will be provided with the following software for use in the classroom:

Microsoft Windows 2000 Advanced Server

Microsoft Windows 2000 Professional

### **Course 2153: Implementing a Microsoft Windows 2000 Network Infrastructure**

#### **Introduction**

This course is for support professionals who are new to Microsoft Windows 2000 and will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows 2000 Server products. It also provides students with the prerequisite knowledge and skills required for Course 2154, Implementing and Administering Microsoft Windows 2000 Directory Services.

### **Course Materials**

The course materials are yours to keep.

You will be provided with the following software for use in the classroom:

Microsoft Windows 2000 Advanced Server

Microsoft Windows 2000 Professional

### **Course 2154: Implementing and Administering Microsoft Windows 2000 Directory Services**

#### **Introduction**

This course is designed to provide students with the knowledge and skills necessary to install, configure, and administer Microsoft Windows 2000 Active Directory directory services. The course also focuses on implementing Group Policy and performing the Group Policy—related tasks that are required to centrally manage users and computers.

### **Course Materials**

The course materials are yours to keep.

You will be provided with the following software for use in the classroom:

Microsoft Windows 2000 Professional

Microsoft Windows 2000 Advanced Server

### **Course 2295: Implementing and Supporting Microsoft Internet Information Services**

## **5.0**

### **Introduction**

The goal of this course is to provide a solution for the customers' need to have trained IT support personnel to implement, support, and maintain Microsoft Internet Information Services (uS) 5.0.

### **Course Materials**

The student kit includes a comprehensive workbook and other necessary materials for this class.

The following software is provided in the student kit:

Microsoft Windows 2000 Advanced Server

Microsoft FrontPage 2000