MICROSOFT
TRAINING
AND CERTIFICATION

Microsoft Official Curriculum

Introduction

Contents

Microsoft

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Simulations and interactive exercises were made with Macromedia Authorware

Instructor Notes

Presentation:
30 Minutes

The Introduction module provides students with an overview of the course content, materials, and logistics for course 2151A: *Microsoft Windows 2000 Network and Operating System Essentials.*

Course Materials and Preparation

Required Materials

To teach this course, you need the following materials:

- Delivery Guide
- Trainer Materials compact disc

Preparation Tasks

To prepare for this course, you must:

- Complete the Course Preparation Checklist that is included with the trainer course materials.

Module Strategy

Use the following strategy to present this module:

- Course 2151A, *Microsoft Windows 2000 Network and Operating System Essentials*

  Show the slide that displays the course number and course title.

- Introduction

  Welcome students to the course and introduce yourself. Provide a brief overview of your background to establish credibility.

  Have students introduce themselves and provide their background, product experience, and expectations of the course.

  Record student expectations on a whiteboard or flip chart to which you can refer later in the class.

- Course Materials

  Explain the purpose of all materials used in this course.

  Tell students that they will have an opportunity at the end of the class to provide feedback on the course and facilities by using the Microsoft Online Evaluation System.

- Prerequisites

  Provide the students with the list of prerequisites that they should have met before taking this course. This is an opportunity for you to identify students who may not have the appropriate background or experience to attend this course.

- Course Outline

  Provide an overview of each module and what students will learn.

  Explain how this course will meet students' expectations by describing the information covered in individual modules.

- Microsoft Certified Professional Program

  Inform students about the Microsoft Certified Professional (MCP) program and the various certification options.

- Microsoft Official Curriculum

  Inform students about the Microsoft Official Curriculum program and refer them to the Microsoft Official Curriculum Web page at http://www.microsoft.com/train_cert/moc/

- Facilities

  Explain the facility information for the training site.

Introduction

Slide Objective
To introduce yourself, establish credibility, meet students, and set student expectations for the course.

Lead-in
Good morning. Welcome to *Microsoft Windows 2000 Network and Operating System Essentials*.

My name is...

- **Name**
- **Company Affiliation**
- **Title/Function**
- **Job Responsibility**
- **Networking Experience**
- **Operating System Experience**
- **Expectations for the Course**

Introduce yourself.

Provide a brief overview of your background to establish credibility as a *Microsoft Windows 2000 Network and Operating System Essentials* instructor.

Ask students to introduce themselves, addressing the bulleted items on the slide.

Delivery Tip
As students introduce themselves, use a white board or flip chart to record their expectations of the course.

Course Materials

Slide Objective
To identify and describe the course materials.

Lead-in
We have provided everything you need for this course. You will find the following materials at your desk...

- **Name Card**
- **Student Workbook**
- **Student Materials Compact Disc**
- **Course Evaluation**

Describe the contents of the student workbook and the Student Materials compact disc.

Have students write their names on both sides of the name card.

Tell students that a course evaluation must be completed at the end of the course.

Tell students where they can send comments.

Delivery Tip
Demonstrate how to open the Web page provided on the Student Materials compact disc. On the Trainer Materials compact disc, double-click **Default.htm** in the StudntCD folder.

The following materials are included with your kit:

- *Name card.* Write your name on both sides of the name card.
- *Student workbook.* The student workbook contains the material covered in class, in addition to the hands-on lab exercises.
- *Student Materials compact disc.* The Student Materials compact disc contains the Web page that provides students with links to resources pertaining to this course, including additional readings, review and lab answers, lab files, multimedia presentations, and course-related Web sites.

Note To open the Web page, insert the Student Materials compact disc into the CD-ROM drive, and then in the root directory of the compact disc, double-click **Default.htm**.

- *Course evaluation.* At the conclusion of this course, please complete the course evaluation to provide feedback on the instructor, course, and software product. Your comments will help us improve future courses.

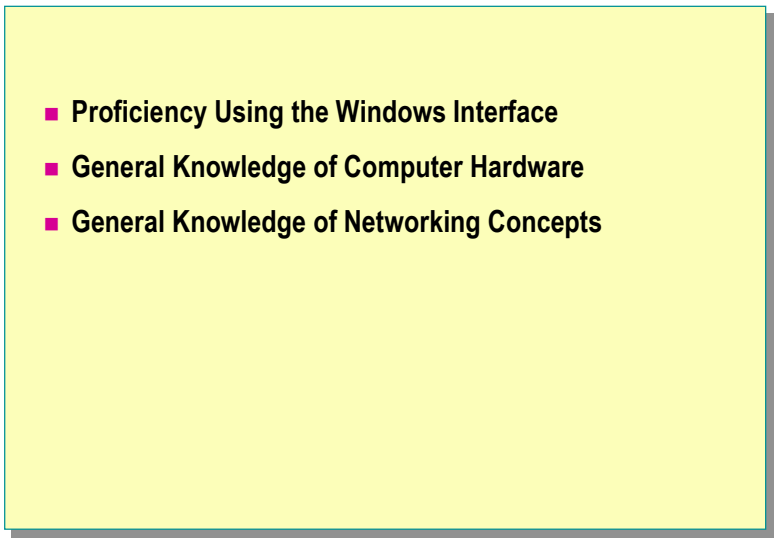
  To provide additional comments on course materials, send e-mail to mstrain@microsoft.com. Be sure to type **Course 2151A** in the subject line.

  To provide additional comments or inquire about the Microsoft Certified Professional program, send e-mail to mcp@msprograms.com.

Prerequisites

Slide Objective
To present and describe the prerequisites for this course.

Lead-in
The following prerequisite knowledge is needed for this course.



This course requires that you meet the following prerequisites:

- Proficiency using the Microsoft® Windows® interface to configure the desktop environment and to locate, create, and manipulate folders and files
- General knowledge of computer hardware components, including memory, hard disks, and CPUs
- General knowledge of networking concepts, including network operating system, client/server relationship, and local area network (LAN)

Course Outline

Slide Objective
To provide an overview of each module and what students will learn.

Lead-in
In this course, we will examine Windows 2000 and how it functions in a network.

- **Module 1: Introduction to Windows 2000 and Networking**
- **Module 2: Administration of a Windows 2000 Network**
- **Module 3: Securing a Windows 2000 Network**
- **Module 4: Examining the Network**
- **Module 5: Examining Network Protocols**

Briefly describe each module.

As you describe each module, acknowledge any information that will meet the student expectations that you recorded earlier.

Module 1, "Introduction to Windows 2000 and Networking," explains networking concepts and describes how Windows 2000 and networking are combined. The module introduces the concept of a domain and describes the implementation of Microsoft Windows 2000 Directory Services with Active Directory™ directory service. At the end of this module, you will be able to identify the features of the Windows 2000 operating systems and describe the different types of networks and network operating systems.

Module 2, "Administration of a Windows 2000 Network," describes routine tasks that you must perform to maintain a network. The module introduces Windows 2000 Help, which provides instructions for performing many tasks. The first part of the module explains how to search Windows 2000 Help for information and how to bookmark information that you regularly access. Control Panel is introduced as the main point of access for the various administrative tools. At the end of this module, you will be able to use Windows 2000 Help as an administrative resource and describe the tools used to perform routine administrative tasks.

Module 3, Securing a Windows 2000 Network," describes how administrators can secure access to a network. The module describes user accounts as a means for implementing network security. The module also explains the local and domain user categories and how user accounts in these categories are further divided into user-defined accounts and built-in user accounts. The module describes the role of user rights and permissions in controlling access to network resources and how to set permissions on shared resources to ensure that only authorized users have access. At the end of this module, you will be able to identify types of user accounts, describe the different types of groups, describe user rights, and verify permissions to printers and folders.

Module 4, “Examining the Network,” describes network components, including the cables and the communication tools that are used to build the network. The module describes the network *topologies*, or designs, that support the administrative and organizational structures of an organization. It also identifies the network components that allow for expansion of a network, including the components required for remote access to a network. At the end of this module, you will be able to describe the components and scope of a network and identify current network topologies and related technologies.

Module 5, “Examining Network Protocols,” describes the *protocols*, or sets of standards, designed to enable computers to connect with one another and to exchange information. The module describes the characteristics of the protocols available today and their compatibility with Windows 2000. At the end of this module, you will be able to identify the common protocols and describe their characteristics.

Course Outline *(continued)*

- **Module 6: Examining TCP/IP**
- **Module 7: Examining IP Addressing**
- **Module 8: Optimizing IP Address Allocation**
- **Module 9: Examining Web Services**

Module 6, "Examining TCP/IP," describes the TCP/IP protocol suite that enables enterprise networking and connectivity on Windows 2000-based computers. The module describes how TCP/IP provides a technology for connecting dissimilar systems in a client/server framework and provides a foundation for access to global Internet services and e-mail. At the end of this module, you will be able to describe the TCP/IP communication process, including the protocols in the TCP/IP protocol stack, and you will be able to describe the process for resolving computer names to IP addresses.

Module 7, "Examining IP Addressing," describes the primary function of the Internet Protocol (IP): to add address information to a data packet before it is sent across a network. To understand the procedure used by IP, you should be familiar with the process of determining the addresses of the intermediate and final destinations of the data. At the end of this module, you will be able to describe the rules that identify hosts in a network and describe the IP address classes. You will be able to describe issues in planning an IP address and describe the procedure used to assign an IP address.

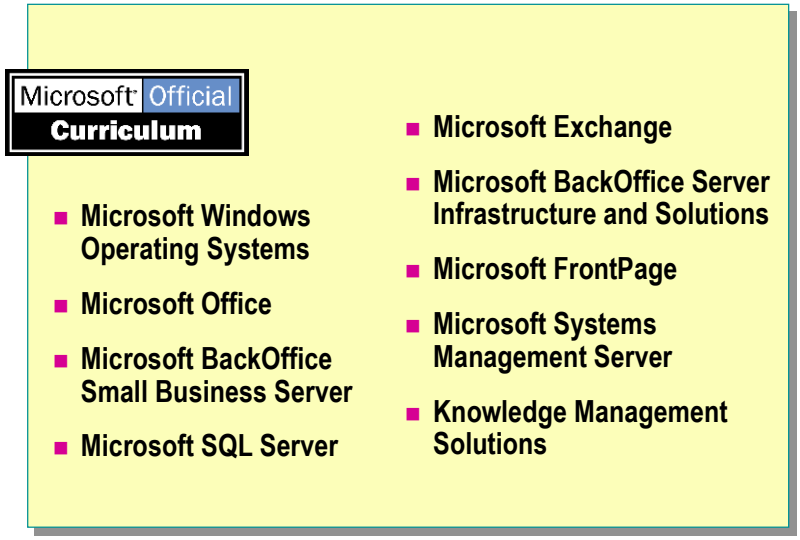
Module 8, "Optimizing IP Address Allocation," describes the binary notation system used for designating IP addresses, by which computers in a network are identified. The module also describes Classless Inter-Domain Routing (CIDR), which is an efficient method of IP address allocation. At the end of this module, you will be able to convert IP addresses from decimal format to binary format, calculate the network ID of an IP address represented in CIDR notation, and describe IP address allocation using CIDR.

Module 9, "Examining Web Services," describes the services provided by Windows 2000 to support large internetworks, including the Internet. The module introduces basic concepts and terminologies of Web services and describes the methods of connecting and securing access to the Internet, including the server technologies for providing information on the Internet. At the end of this module, you will be able to describe internetworking technologies and explain how to securely connect to the Internet.

Microsoft Official Curriculum

Slide Objective
To explain the Microsoft Official Curriculum program and provide information about curriculum paths.

Lead-in
Let's briefly talk about the Microsoft Official Curriculum program.



Microsoft® Official Curriculum (MOC) is hands-on facilitated classroom and Web-based training. Microsoft develops skills-based training courses to educate computer professionals who develop, support, and implement solutions by using Microsoft products, solutions, and technologies. MOC courses are available for the following products and solutions:

- Microsoft Windows® operating systems
- Microsoft Office
- Microsoft BackOffice® Small Business Server
- Microsoft SQL Server™
- Microsoft Exchange
- Microsoft BackOffice Server Infrastructure and Solutions
- Microsoft FrontPage®
- Microsoft Systems Management Server
- Knowledge Management Solutions

MOC provides a curriculum path for each product and solution. For more information on the curriculum paths, see the Microsoft Official Curriculum Web page at http://www.microsoft.com/train_cert/moc/

The Microsoft Official Curriculum Web page provides information about MOC courses. In addition, you can find recommended curriculum paths for individuals who are entering the Information Technology (IT) industry, who are continuing their training on Microsoft products and solutions, or who currently support non-Microsoft products.

Microsoft Certified Professional Program

Slide Objective
To provide students with information about the Microsoft Certified Professional Program.

Lead-in
The Microsoft Certified Professional Program includes these certifications.

- **Microsoft Certified Systems Engineer (MCSE)**
- **Microsoft Certified Database Administrator (MCDBA)**
- **Microsoft Certified Solution Developer (MCSD)**
- **Microsoft Certified Professional + Site Building (MCP + Site Building)**
- **Microsoft Certified Professional (MCP)**
- **Microsoft Certified Trainer (MCT)**

The Microsoft Certified Professional program provides the best method to prove your command of current Microsoft products and technologies. The following table describes each certification in more detail.

Certification	Description
Microsoft Certified Systems Engineer (MCSE)	MCSEs are qualified to effectively plan, implement, maintain, and support information systems in a wide range of computing environments with Microsoft Windows 2000 and Microsoft BackOffice.
Microsoft Certified Database Administrator (MCDBA)	MCDBAs are qualified to derive physical database designs, develop logical data models, create physical databases, create data services by using Transact-SQL, manage and maintain databases, configure and manage security, monitor and optimize databases and install and configure Microsoft SQL Server.
Microsoft Certified Solution Developer (MCSD)	MCSDs are qualified to build Web-based, distributed, and commerce applications by using Microsoft products, such as Microsoft SQL Server, Microsoft Visual Studio®, and Component Services.
Microsoft Certified Professional + Site Building (MCP + Site Building)	MCPs with a specialty in site building are qualified to plan, build, maintain, and manage Web sites by using Microsoft technologies and products.
Microsoft Certified Professional (MCP)	MCPs demonstrate in-depth knowledge of at least one product by passing any one exam (except Networking Essentials).
Microsoft Certified Trainer (MCT)	MCTs demonstrate the instructional and technical skills that qualify them to deliver Microsoft Official Curriculum through Microsoft Certified Technical Education Centers (Microsoft CTEC).

Certification Requirements

The certification requirements differ for each certification category and are specific to the products and job functions addressed by the certification. To become a Microsoft Certified Professional, you must pass rigorous certification exams that provide a valid and reliable measure of technical proficiency and expertise.

For More Information See the "Certification" section of the Web page provided on the compact disc or the Microsoft Training and Certification Web site at http://www.microsoft.com/train_cert/

You can also send e-mail to mcp@msprograms.com if you have specific certification questions.

Preparing for an MCP Exam

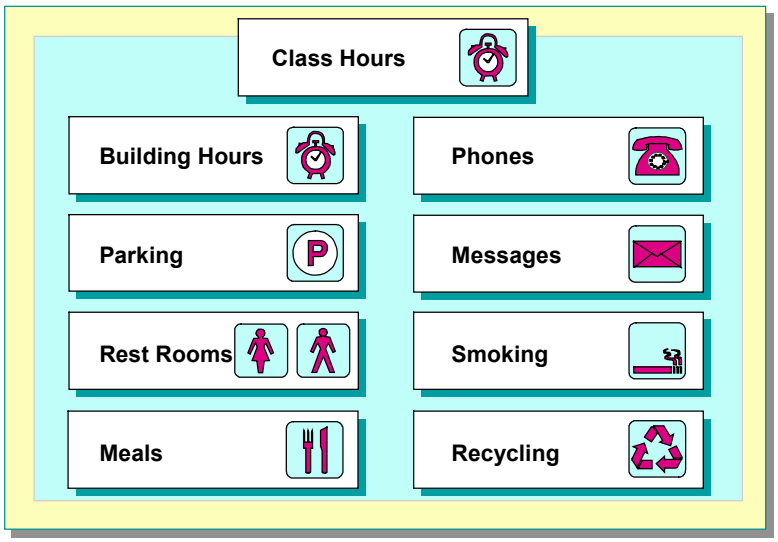
Microsoft Official Curriculum (MOC) helps you prepare for Microsoft Certified Professional (MCP) exams. However, no one-to-one correlation exists between MOC courses and MCP exams. Microsoft does not expect or intend for MOC to be the sole preparation tool for passing an MCP exam. Practical product knowledge and experience is also necessary to pass an MCP exam.

To help prepare for the MCP exams, you can use the preparation guides that are available for each exam. Each Exam Preparation Guide contains exam-specific information, such as a list of the topics on which you will be tested. These guides are available on the Microsoft Certified Professional Web site, located at the following address: http://www.microsoft.com/mcp/examinfo/exams.htm

Facilities

Slide Objective
To inform students of class logistics and rules for the training site.

Lead-in
Before we start, let's go over the class logistics.



Explain the class hours, extended building hours for labs, parking, rest room location, meals, phones, message posting, and where smoking is or isn't allowed.

Also make sure that the students are aware of the recycling program if one is available.