

Introduction

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Instructor Notes

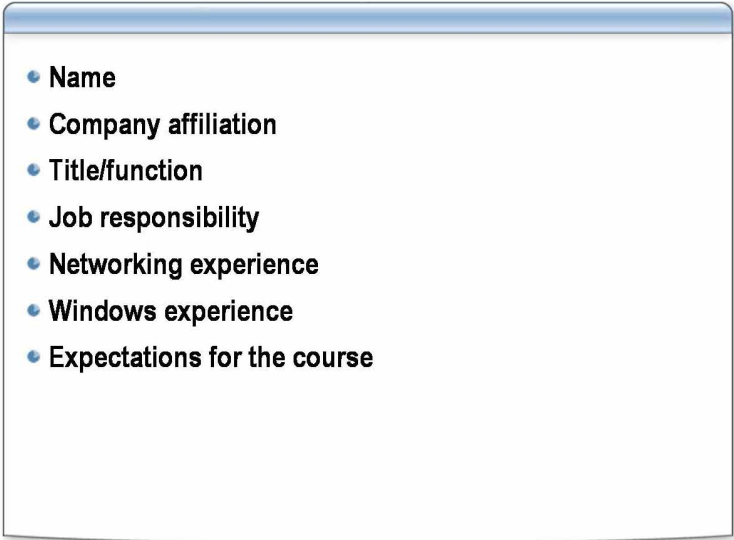
Presentation: 30 minutes	The Introduction module provides students with an overview of the course content, materials, and logistics for Course 2276, <i>Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts</i> .
Required materials	To teach this course, you need the following materials: <ul style="list-style-type: none">■ Delivery Guide■ Trainer Materials compact disc
Preparation tasks	To prepare for this course, you must: <ul style="list-style-type: none">■ Complete the Course Preparation Checklist that is included with the trainer course materials.

How to Teach This Module

	<p>This section contains information that will help you to teach this module.</p>
Introduction	<p>Welcome students to the course and introduce yourself. Provide a brief overview of your background to establish credibility.</p> <p>Ask students to introduce themselves and provide their background, product experience, and expectations of the course.</p> <p>Record student expectations on a whiteboard or flip chart that you can reference later in class.</p>
Course materials	<p>Tell students that everything they will need for this course is provided at their desk.</p> <p>Have students write their names on both sides of the name card.</p> <p>Describe the contents of the student workbook and the Student Materials compact disc.</p> <hr/> <p>Important This course has assessment items for each lesson, located on the Student Materials compact disc. You can use them as pre-assessments to help students identify areas of difficulty, or you can use them as post-assessments to validate learning.</p> <p>Consider using them to reinforce learning at the end of the day. You can also use them at the beginning of the day as a review for the content that was taught on the previous day.</p> <hr/> <p>Tell students where they can send comments and feedback on this course.</p> <p>Demonstrate how to open the Web page that is provided on the Student Materials compact disc by double-clicking Autorun.exe or Default.htm in the StudentCD folder on the Trainer Materials compact disc.</p>
Prerequisites	Describe the prerequisites for this course. This is an opportunity for you to identify students who may not have the appropriate background or experience to attend this course.

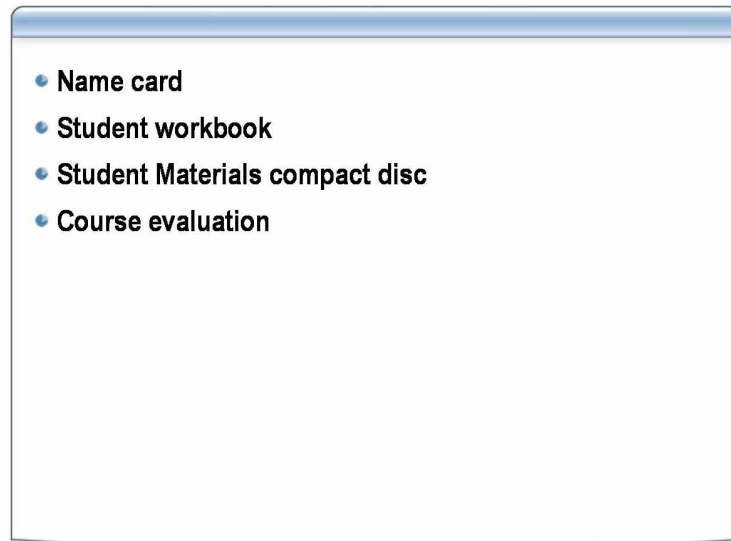
Course outline	<p>Briefly describe each module and what students will learn. Be careful not to go into too much detail because the course is introduced in detail in Module 1.</p> <p>Explain how this course will meet students' expectations by relating the information that is covered in individual modules to their expectations.</p>
Setup	<p>Describe any necessary setup information for the course, including course files and classroom configuration.</p> <p>To view the multimedia animations for this course, click the Media Launch icon. After you open the animation, press F11 to view it in full-screen mode.</p>
Microsoft Official Curriculum	<p>Explain the Microsoft Official Curriculum (MOC) program and present the list of additional recommended courses.</p> <p>Refer students to the Microsoft Official Curriculum Web page at http://www.microsoft.com/traincert/training/ for information about curriculum paths.</p>
Microsoft Certified Professional program	<p>Inform students about the Microsoft Certified Professional (MCP) program, any certification exams that are related to this course, and the various certification options.</p>
Multimedia: Job Roles in Today's Information Systems Environment (optional)	<p>The multimedia file for this presentation is installed on the instructor computer. To open a multimedia presentation, click the animation icon on the slide for that multimedia presentation.</p> <p>This presentation is included in the prerequisite courses for this course, and has probably already been seen by some if not most students. Determine whether playing it would be beneficial to the particular audience. If you play the presentation, explain that it helps students to understand the differences between the job roles of the systems administrator and the systems engineer. Emphasize that this course focuses on a subset of the systems administrator job role.</p>
Facilities	<p>Explain the class hours, extended building hours for labs, parking, restroom location, meals, phones, message posting, and where smoking is or is not allowed.</p> <p>Inform your students if your facility has Internet access that is available for them to use during class breaks.</p> <p>Also, make sure that the students are aware of the recycling program if one is available.</p>

Introduction

- 
- Name
 - Company affiliation
 - Title/function
 - Job responsibility
 - Networking experience
 - Windows experience
 - Expectations for the course

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Course Materials



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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 you 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 **Autorun.exe** or **Default.htm**.

- *Assessments.* There are assessments for each lesson, located on the Student Materials compact disc. You can use them as preassessments to identify areas of difficulty, or you can use them as postassessments to validate learning.
- *Course evaluation.* To provide feedback on the course, training facility, and instructor, you will have the opportunity to complete an online evaluation near the end of the course.
- *Evaluation software.* An evaluation copy of Microsoft® Windows® Server 2003 Release Candidate 2 (RC2) is provided for your personal use only.

To provide additional comments or feedback on the course, send e-mail to support@mscourseware.com. To inquire about the Microsoft Certified Professional program, send e-mail to mcphep@microsoft.com.

Additional Reading from Microsoft Press

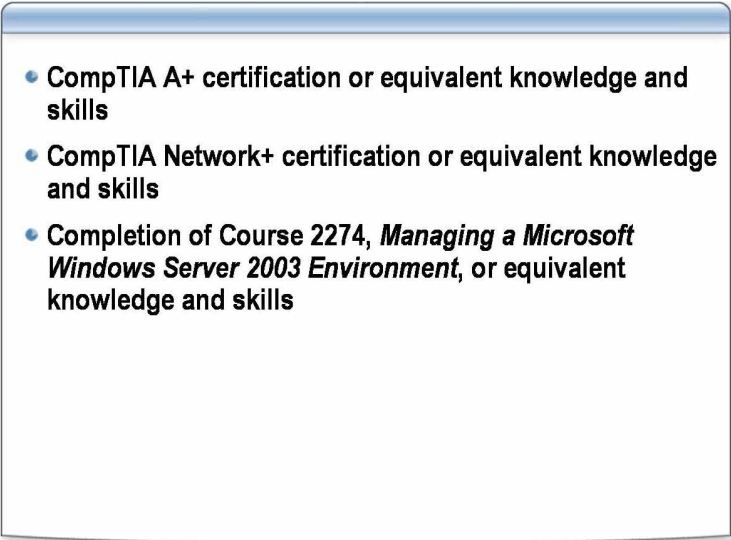


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Microsoft Windows Server 2003 books from Microsoft Press® can help you do your job—from the planning and evaluation stages through deployment and ongoing support—with solid technical information to help you get the most out of the Windows Server 2003 key features and enhancements. The following titles supplement the skills taught in this course:

Title	ISBN
Microsoft Windows Server 2003 Admin Pocket Consultant	0-7356-1354-0
Microsoft Windows Server 2003 TCP/IP Protocols and Services Technical Reference	0-7356-1291-9
Microsoft Windows Server 2003 Administrator's Companion	0-7356-1367-2
Microsoft Windows Server 2003 Security Administrator's Companion	0-7356-1574-8
Understanding IPv6	0-7356-1245-5

Prerequisites

- 
- CompTIA A+ certification or equivalent knowledge and skills
 - CompTIA Network+ certification or equivalent knowledge and skills
 - Completion of Course 2274, *Managing a Microsoft Windows Server 2003 Environment*, or equivalent knowledge and skills

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This course requires that you meet the following prerequisites:

- CompTIA A+ certification or equivalent knowledge and skills.
- CompTIA Network+ certification or equivalent knowledge and skills.
- Completion of Course 2274, *Managing a Microsoft Windows Server 2003 Environment*, or equivalent knowledge and skills.

Course Outline

- **Module 1: Reviewing the Suite of TCP/IP Protocols**
- **Module 2: Assigning IP Addresses in a Multiple Subnet Network**
- **Module 3: Configuring a Client IP Address**
- **Module 4: Configuring a Client for Name Resolution**
- **Module 5: Isolating Common Connectivity Issues**

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Module 1, “Reviewing the Suite of TCP/IP Protocols,” reviews the suite of Transmission Control Protocol/Internet Protocols (TCP/IP) protocols. By understanding the function of each of the protocols and how the protocols relate to each other, you have the context for understanding network administration tasks and network troubleshooting.

Module 2, “Assigning IP Addresses in a Multiple Subnet Network,” explains how to construct and assign IP addresses and how to isolate addressing issues associated with the IP routing process.

Module 3, “Configuring a Client IP Address,” discusses how to configure an Internet Protocol (IP) address for a client computer running Microsoft Windows Server 2003 on a network running the TCP/IP protocol suite. System administrators must be able to configure a client to use a static IP address and configure a client to obtain an IP address automatically.

Module 4, “Configuring a Client for Name Resolution,” discusses how Network Basic Input/Output System (NetBIOS) names are resolved into IP addresses. To ensure that clients can communicate on a TCP/IP network, system administrators must know how to configure clients to use the various types of name resolution mechanisms provided by the Windows operating systems.

Module 5, “Isolating Common Connectivity Issues,” describes the most common types of connectivity issues and how to isolate them by using a variety of network utilities.

Appendices

Appendix A, “Differences Between the Microsoft Windows 2000 Server Family and the Microsoft Windows Server 2003 Family,” explains the differences between the operating systems in the context of the tasks in each module. This appendix is provided for students who are familiar with Windows 2000 Server.

Appendix B, “Decimal Equivalent Mask Values” provides values for IP address classes A, B and C. Refer to these values when completing the practice Calculating a Subnet Mask, in Module 2, “Assigning IP Addresses in a Multiple Subnet Network.”

Appendix C, “Problem Isolation Flowchart” describes a problem isolation process. Refer to this flowchart when completing the lab exercises.

Setup

- Classroom is configured as one Windows Server 2003 domain: nwtraders.msft
- London is a domain controller and the instructor computer
- Student computers are running Windows Server 2003 Enterprise Edition RC2
- Each student computer has an organizational unit
- Students are administrators for their server and organizational unit

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Course files

There are files associated with the labs and practices in this course. The lab files are located in the C:\MOC\2276 folder on the student computers.

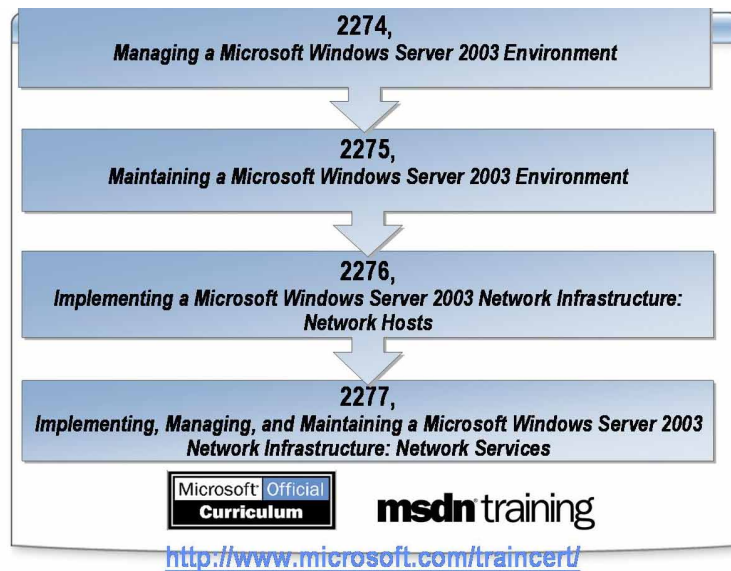
Classroom setup

The classroom configuration consists of two domain controllers and at least 12 student computers. Each computer is running Windows Server 2003, Enterprise Edition.

The name of the domain is nwtraders.msft. It is named after Northwind Traders, a fictitious company that has offices worldwide. The names of the computers correspond with the names of the cities where the fictitious offices are located.

The domain controller is named London. The student computers are named after various cities, such as Acapulco, Bonn, and Casablanca. The name of each computer corresponds with an organizational unit of the same name. For example, the Acapulco computer is part of the Acapulco organizational unit.

Microsoft Official Curriculum



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Introduction

Microsoft Training and Certification develops Microsoft Official Curriculum (MOC), including Microsoft MSDN® Training, for computer professionals who design, develop, support, implement, or manage solutions by using Microsoft products and technologies. These courses provide comprehensive skills-based training in instructor-led and online formats.

Additional recommended courses

Each course relates in some way to another course. A related course may be a prerequisite, a follow-up course in a recommended series, or a course that offers additional training.

It is recommended that you take the following courses in this order:

- 2274: *Managing a Microsoft Windows Server 2003 Environment*
- 2275: *Maintaining a Microsoft Windows Server 2003 Environment*
- 2276: *Implementing Microsoft Windows Server 2003 Network Infrastructure: Network Hosts*
- 2277: *Managing and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services*


Other related courses may become available in the future, so for up-to-date information about recommended courses, visit the Training and Certification Web site.

Microsoft Training and Certification information

For more information, visit the Microsoft Training and Certification Web site at <http://www.microsoft.com/traincert/>.

Microsoft Certified Professional Program

Exam number and title	Core exam for the following track	Elective exam for the following track
Exam 70-291: <i>Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure</i>	MCSA	



<http://www.microsoft.com/traincert/>

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Introduction

Microsoft Training and Certification offers a variety of certification credentials for developers and IT professionals. The Microsoft Certified Professional program is the leading certification program for validating your experience and skills, keeping you competitive in today's changing business environment.

Related certification exams

This course helps students to prepare for Exam 70-291: *Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure*.

Exam 70-291 is the core exam for the Windows Server 2003 Microsoft Certified Systems Administrator (MCSA) certification.

MCP certifications

The Microsoft Certified Professional program includes the following certifications.

■ MCSA on Microsoft Windows 2003

The MCSA certification is designed for professionals who implement, manage, and troubleshoot existing network and system environments based on Microsoft Windows 2003 platforms, including the Windows 2003 Server family. Implementation responsibilities include installing and configuring parts of the systems. Management responsibilities include administering and supporting the systems.

■ MCSE on Microsoft Windows 2003

The Microsoft Certified Systems Engineer (MCSE) credential is the premier certification for professionals who analyze the business requirements and design and implement the infrastructure for business solutions based on the Microsoft Windows 2003 platform and Microsoft server software, including the Windows 2003 Server family. Implementation responsibilities include installing, configuring, and troubleshooting network systems.

- **MCAD**

The Microsoft Certified Application Developer (MCAD) for Microsoft .NET credential is appropriate for professionals who use Microsoft technologies to develop and maintain department-level applications, components, Web or desktop clients, or back-end data services or work in teams developing enterprise applications. The credential covers job tasks ranging from developing to deploying and maintaining these solutions.

- **MCSD**

The Microsoft Certified Solution Developer (MCSD) credential is the premier certification for professionals who design and develop leading-edge business solutions with Microsoft development tools, technologies, platforms, and the Microsoft Windows DNA architecture. The types of applications MCSDs can develop include desktop applications and multi-user, Web-based, N-tier, and transaction-based applications. The credential covers job tasks ranging from analyzing business requirements to maintaining solutions.

- **MCDBA on Microsoft SQL Server™ 2000**

The Microsoft Certified Database Administrator (MCDBA) credential is the premier certification for professionals who implement and administer Microsoft SQL Server databases. The certification is appropriate for individuals who 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 SQL Server.

- **MCP**

The Microsoft Certified Professional (MCP) credential is for individuals who have the skills to successfully implement a Microsoft product or technology as part of a business solution in an organization. Hands-on experience with the product is necessary to successfully achieve certification.

- **MCT**

Microsoft Certified Trainers (MCTs) demonstrate the instructional and technical skills that qualify them to deliver Microsoft Official Curriculum through Microsoft Certified Technical Education Centers (Microsoft CTECs).

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 Microsoft Training and Certification Web site at <http://www.microsoft.com/traincert/>.

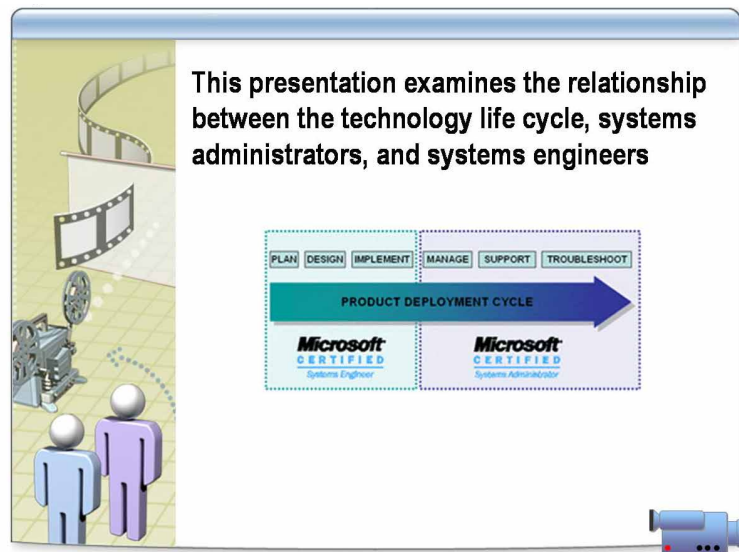
You can also send e-mail to mcphelp@microsoft.com if you have specific certification questions.

**Acquiring the skills
tested by an MCP exam**

MOC and MSDN Training can help you develop the skills that you need to do your job. They also complement the experience that you gain while working with Microsoft products and technologies. However, no one-to-one correlation exists between MOC and MSDN Training courses and MCP exams. Microsoft does not expect or intend for the courses to be the sole preparation method for passing MCP exams. Practical product knowledge and experience is also necessary to pass the MCP exams.

To help prepare for the MCP exams, 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 Training and Certification Web site at <http://www.microsoft.com/traincert/>.

Multimedia: Job Roles in Today's Information Systems Environment



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File location

To view the multimedia presentation, *Job Roles in Today's Information Systems Environment*, open the Web page on the Student Materials compact disc, click **Multimedia**, and then click the title of the presentation.

Facilities



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