

ITMC 1074 Course Syllabus

1. Name of Course: Deploying Windows Server 2008

2. Number of Clock Hours: 24

3. Course Description:

This course provides students with an understanding of migrating and deploying Windows Server 2008 including installation, configuration, and upgrading. Special emphasis is given to upgrading common server configurations and using the Microsoft Deployment Toolkit. MOC 6418. Prerequisites: ITMC 2075 or equivalent.

4. Course Objectives

After completing this course, students will be able to:

- Install Windows Server 2008.
- Install Windows Server 2008 Server Core.
- Configure Windows Server Core.
- Add and configure Windows Server Core roles.
- Add the Backup feature to Windows Server Core.
- Manage Windows Server Core.

5. Rationale:

Upon completion of this course, students will have a better understanding of Microsoft Windows 2008, the most popular operating system in use today.

6. Required Materials:

Microsoft Official Curriculum, 6418. included.

7. Evaluation

Those who participate in class discussions, complete course lab work, and miss no more than three class meetings will be awarded 2.4 continuing education units.

8. Course Outline

Module 1: Windows Server 2008 Installation and Configuration. This module focuses on installation options and requirements for Windows Server 2008, including deploying Windows Server Core. This module also covers using Key Management Service (KMS) and Multiple Activation Keys (MAK) to implement a volume license strategy. Lessons

- Windows Server 2008 Setup Improvements and Requirements
- Windows Server 2008 Server Core Installation
- Implement a Volume Licensing Strategy using KMS and MAK

Lab : Install Windows Server 2008

- Install Windows Server 2008
- Install Windows Server Core 2008

After completing this module, students will be able to:

- Describe Windows Server 2008 setup improvements.
- Describe the Windows Server 2008 Server Core installation option.
- Automate server activation using Microsoft Volume Activation.

Module 2: Windows Server Core 2008 Configuration This module focuses on Windows Server Core 2008 configuration. Basic Server Core configuration including setting the Administrator password and server TCP/IP configuration are covered in this module. Lessons

- Server Core Basic Configuration
- Configuring Server Core Roles

Lab : Configure Windows Server Core 2008

- Configure Windows Server Core
- Add and configure Windows Server Core roles
- Add the Backup feature to Windows Server Core
- Manage Windows Server Core

After completing this module, students will be able to:

- Configure Server Core.
- Describe how to add roles to Server Core.

Module 3: Windows Server 2008 Unattended Installation This module describes using Unattend.xml files to install Windows Server 2008. This module also covers creating a network deployment infrastructure for unattended installation and unattended domain controller installation. Lessons

- Unattended Windows Server 2008 Installation
- Unattended Domain Controller Installation

Lab : Install Active Directory on Server Core Using an Unattend File

- Create an answer file for use with Dcpromo.

Lab : Deploy an RODC in a Remote Infrastructure Using an Unattend File

- Create an Unattend file to automate RODC installation.
- Deploy an RODC using an answer file.

After completing this module, students will be able to:

- Perform an unattended Windows Server 2008 installation.
- Perform an unattended domain controller installation.

Module 4: Using Windows Deployment Services This module focuses on using Windows Deployment Services and the new WIM image format to create and deploy custom system images. Lessons

- Windows Deployment Services
- Working with the WIM Format

Lab : Working with Windows Deployment Services

- Install and configure Windows Deployment Services.
- Create operating system images in WDS.
- Add components like language packs to an image.
- Use an Unattend file with WDS.
- Configure custom computer naming for large scale WDS deployments.
- Deploy images with WDS.

After completing this module, students will be able to:

- Configure and use Windows Deployment Services in Windows Server 2008.
- Manage operating system images in the WIM image format.

Module 5: Microsoft Deployment Toolkit This module introduces the Microsoft Deployment Toolkit as a tool for low-touch operating system deployment. This module also covers creating custom system images for common server configurations. Lessons

- Introduction to the Microsoft Deployment Toolkit
- Using the Microsoft Deployment Toolkit

Lab : Installing, Configuring, and Using MDT

- Install Microsoft Deployment Toolkit
- Configure Microsoft Deployment Toolkit
- Create an MDT build
- Create MDT deployment points
- Perform a Lite Touch installation using MDT

After completing this module, students will be able to:

- Describe the Microsoft Deployment Toolkit.
- Use the Microsoft Deployment Toolkit.

Module 6: Upgrading and Migrating Active Directory This module provides prescriptive guidance for upgrading and migrating active directory from Windows Server 2003 to Windows Server 2008. This module also covers upgrading specific Active Directory-related services including DNS, Certificate Services, IPSec configuration, and GPO objects. This module provides best-practices for Active Directory upgrades. Lessons

- Windows Server 2008 Upgrade Overview
- Upgrading Windows Server 2003 Domain Controllers to Windows Server 2008
- Active Directory Upgrade Sequence

Lab : Preparing the Active Directory Environment for Windows Server 2008

- Prepare a Windows Server 2003 forest for upgrade to Windows Server 2008.
- Prepare a Windows Server 2003 domain for upgrade to Windows Server 2008.

Lab : Installing an Additional Windows Server 2008 Domain Controller

- Install a domain controller in an existing domain using the Windows interface.
- Install a domain controller in an existing domain using the Command Line.

After completing this module, students will be able to:

- Describe the Windows Server 2008 upgrade process.
- Describe how to upgrade Microsoft Windows 2000 Server and Windows Server 2003 Domain Controllers to Windows Server 2008 Domain Controllers.
- Describe the Active Directory upgrade sequence.

Module 7: Upgrading File and Print, Web, and Remote Infrastructure Servers This module provides prescriptive guidance for upgrading and migrating file and print servers from Windows Server 2003 to Windows Server 2008. This module also includes guidance for upgrading and migrating application and Web servers from Windows Server 2003 to Windows Server 2008. This module also provides guidance for upgrading and migrating remote servers from Windows Server 2003 to Windows Server 2008. Lessons

- Upgrading File and Print Servers
- Upgrading Web and Application Servers
- Upgrading Remote Infrastructure Servers

Lab : Upgrading a Windows Server 2003 File and Print Server

- Install and configure the file and print server roles
- Create and replicate a DFS namespace
- Schedule a backup
- Migrate a printer

Lab : Upgrading a Windows Server 2003 Web Server to Windows Server 2008 and IIS 7.0

- Export an application and configuration from an IIS 6.0 server
- Configure IIS 7.0 on Windows Server 2008
- Import a configuration onto Windows Server 2008

Lab : Prepare a Windows Server 2008 Server Core Installation for use as a Remote Infrastructure Server

- Enable Remote Desktop and remote administration of Windows Firewall
- Install and configure BitLocker Drive Encryption (BDE) and BDE Remote Admin Tool
- Configure admin role separation on a Read-Only Domain Controller
- Configure Distributed File System Replication (DFS-R)

After completing this module, students will be able to:

- Describe considerations for upgrading file and print servers.
- Describe considerations for upgrading Web and application servers.
- Describe considerations for upgrading remote infrastructure servers.

Module 8: Migrating Workloads to Microsoft Virtual Machines This module provides guidance for migrating existing workloads to a virtual machine environment using either Microsoft Virtual Server 2005 R2 SP1 or the Windows Server virtualization role of Windows Server 2008. Lessons

- Microsoft Server Virtualization
- Migrating Workloads to Microsoft Virtual Machines

Lab : Migrating Workloads to Microsoft Virtual Server Using VSMT

- Migrate a Windows NT 4.0 server to a virtual machine.

After completing this module, students will be able to:

- Describe Microsoft server virtualization solutions
- Migrate workloads to Microsoft virtual machines

Module 9: Configuring Windows Server 2008 for Performance This module describes considerations for hardware selection, and workload-specific tuning considerations. Lessons

- Hardware Considerations
- Workload Considerations

After completing this module, students will be able to:

- Describe hardware considerations for Windows Server 2008 performance.
- Describe workload-specific tuning considerations.