

## **ITMT 2073**

### **Course Syllabus**

**Name of Course:** Planning and Administering Windows Server 2008 Servers

**2. Number of Clock Hours:** 48

### **3. Course Description:**

This course provides students with the knowledge and skills to plan, manage, and maintain Windows Server 2008 servers.. MOC 6430. Prerequisites: MCTS Network Infrastructure & MCTS Active Directory or equivalent.

### **4. Course Objectives**

After completing this course, students will gain the skills to:

- Plan a Windows Server 2008 Deployment.
- Plan and implement server commissioning and decommissioning for Windows Server 2008.
- Plan the installation of server roles for Windows Server 2008.
- Create a configuration change plan for Windows Server 2008.
- Plan and implement Windows Server 2008 security.
- Manage application versioning in Windows Server 2008.
- Plan for a high-availability Windows Server 2008 deployment.
- Plan a server update maintenance schedule for Windows Server 2008.
- Maintain Distributed File System (DFS) in Windows Server 2008.
- Define server backup requirements and policies for Windows Server 2008 backup.
- Plan and implement a Windows Server 2008 restore.
- Plan Windows Server 2008 monitoring.
- Troubleshoot hardware issues.
- Troubleshoot software issues.
- Troubleshoot network issues.

### **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, MOC 6430, included.

### **7. Evaluation**

Those who participate in class discussions, complete course lab work, and miss no more than three class meetings will be awarded 4.8 continuing education units.

## 8. Course Outline

### Module 1: Planning for Windows Server 2008 Deployment

This module explains how to deploy Windows Server 2008

#### Lessons

- Overview of Windows Server 2008 Deployment
- Identifying Windows Server 2008 Compatibility Issues
- Developing a Windows Server 2008 Deployment Plan

#### Lab : Planning for a Windows Server 2008 Server Deployment

- Reviewing the Existing Server Environment
- Reviewing Business Requirements and SLAs
- Creating a Deployment Plan
- Discussion – Reviewing the Deployment Plans

After completing this module, students will be able to:

- Explain the advantages of deploying Windows Server 2008.
- Identify Windows Server 2008 compatibility issues.
- Develop a Windows Server 2008 deployment plan.

### Module 2: Managing Server Migration

This module explains how to commission and decommission Windows Server 2008

#### Lessons

- Creating a Windows Server 2008 Deployment Plan
- Planning the Server Decommissioning Process
- Commissioning a Windows Server 2008 File Server

#### Lab : Migrating a File Server to Windows Server 2008

- Reviewing the Existing Server Environment
- Planning for the Windows Server 2008 File Server
- Deploying a Windows Server 2008 File Server
- Verifying the Windows Server 2008 File Server Deployment

After completing this module, students will be able to:

- Create a deployment plan for Windows Server 2008.
- Identify server decommissioning steps.
- List Windows Server 2008 deployment and migration tools.

### Module 3: Planning Windows Server 2008 Server Roles

This module explains how to plan the installation of server roles in Windows Server 2008

## Lessons

- Planning for Windows Server 2008 Hardware
- Planning for Windows Server 2008 Server Roles
- Planning for Windows Server 2008 File Servers
- Planning for Windows Server 2008 Core

## Lab : Planning Windows Server 2008 Servers

- Planning a Windows Server 2008 Server Configuration
- Planning a Windows Server 2008 File Server
- Implementing Windows Server 2008 File Servers

After completing this module, students will be able to:

- Identify hardware configuration options for Windows Server 2008.
- Identify performance implications when combining server roles.
- List guidance for installing file servers.
- Plan for Windows Server 2008 Server Core.

## Module 4: Creating a Configuration Change Plan for Windows Server 2008

This module explains how to create a configuration change plan in Windows Server 2008

### Lessons

- Developing a change control process
- Planning configuration changes
- Evaluating configuration changes

## Lab : Creating a Configuration Change Plan

- Plan a Windows Server 2008 server configuration
- Discussion – Sharing best practice

After completing this module, students will be able to:

- Design a change control process for implementing configuration changes.
- Plan for configuration changes.
- Evaluate the success of configuration changes.

## Module 5: Managing Windows Server 2008 Security

This module explains how to plan and implement security in Windows Server 2008

### Lessons

- Planning a defense-in-depth strategy
- Implementing host level security for Windows Server 2008
- Implementing server security by using Group Policies

- Implementing network security for Windows Server 2008

#### Lab : Managing Windows Server 2008 Security

- Planning a Windows Server 2008 security configuration
- Implementing file server security

After completing this module, students will be able to:

- Plan a defense-in-depth strategy for Windows Server 2008 security.
- Implement host-level security for Windows Server 2008.
- Implement server security by using Group Policy.
- Implement network security for Windows Server 2008 servers.

#### Module 6: Planning for the Application Server Role

This module explains how to manage versioning and related frameworks in Windows Server 2008

##### Lessons

- Determining application server role requirements
- Overview of the application server role components
- Supporting the .NET framework

#### Lab : Planning for the Application Server Role

- Identifying the server roles required to support a LOB application
- Identifying .NET framework requirements
- Planning security requirements for the application

After completing this module, students will be able to:

- Determine the requirement for application servers.
- Identify application server role components.
- Plan for supporting the Microsoft .NET Framework.

#### Module 7: Planning for Windows Server 2008 High Availability

This module explains how to plan for high availability in Windows Server 2008

##### Lessons

- Planning for Network Load Balancing
- Overview of failover clustering support in Windows Server 2008
- Creating clusters in Windows Server 2008

#### Lab : Planning for Failover Clusters in Windows Server 2008

- Planning hardware requirements for Windows Server 2008 failover clusters

- Planning for Network Load Balancing
- Planning for a high availability LOB application

After completing this module, students will be able to:

- Develop a plan for Network Load Balancing (NLB).
- Describe the improved failover clustering support in Windows Server 2008.
- Plan for failover clustering in Windows Server 2008.

#### Module 8: Maintaining Windows Server 2008

This module explains how to plan a server update maintenance schedule in Windows Server 2008

Lessons

- Overview of Windows Server 2008 management tasks
- Planning for security update management
- Automating Windows Server 2008 maintenance

Lab : Developing a Maintenance Plan for Windows Server 2008

- Evaluating log files and reports
- Planning the maintenance schedule
- Automating maintenance tasks
- Reviewing the maintenance plan

After completing this module, students will be able to:

- Create a server management task schedule for Windows Server 2008.
- Plan for security update management plan by using Windows Server Update Services (WSUS).
- List automated maintenance tools for Windows Server 2008.

#### Module 9: Maintaining a Distributed File System on Windows Server 2008

This module explains how to maintain a Distributed File System (DFS) on Windows Server 2008

Lessons

- Planning components required for DFS
- Planning for fault tolerance in DFS
- Tools for managing DFS

Lab : Planning for DFS

- Evaluating the existing server environment
- Deployment considerations for DFS
- Designing a fault tolerant DFS solution

After completing this module, students will be able to:

- Identify services required for Distributed File System (DFS).
- Explain DFS fault tolerance.
- Identify DFS management tools.

#### Module 10: Planning Windows Server 2008 Backup

This module explains how to define backup requirements and policies for administering Windows Server 2008

Lessons

- Plan Backups by Using the Windows Server 2008 Backup Feature
- Plan a backup policy for Windows Server 2008

Lab : Managing Windows Server 2008 Backup

- Evaluating the existing backup plan
- Updating the backup policy
- Reviewing backup policy and plans
- Backing up a server

After completing this module, students will be able to:

- Create a backup and recovery plan by using Windows Server Backup.
- Develop a backup policy for using Windows Server Backup.

#### Module 11: Managing a Windows Server 2008 Restore

This module explains how to plan and implement a Windows Server 2008 restore

Lessons

- Planning a server restore policy
- Planning an EFS restore policy
- Verifying restored data

Lab : Planning Windows Server 2008 Restore

- Evaluating the backup data
- Planning a restore including System State Data
- Investigating a failed restore

After completing this module, students will be able to:

- Create a server restore plan.
- Create a plan for restoring Encrypting File System (EFS) files.
- Verify the restore procedure.

## Module 12: Monitoring Microsoft Windows Server 2008 Servers

This module explains how to plan for monitoring Windows Server 2008

### Lessons

- Planning monitoring tasks
- Calculating a server baseline
- Measuring performance objects
- Selecting appropriate monitoring tools
- Planning notification methods

### Lab : Identifying Windows Server 2008 Monitoring Requirements

- Evaluating performance metrics
- Monitoring performance metrics
- Configuring Data Collector sets
- Evaluating trends
- Remote monitoring extension

After completing this module, students will be able to:

- Plan monitoring tasks.
- Determine an appropriate server baseline.
- Determine objects and counters to monitor based on server role.
- Select the appropriate monitoring tools.
- Identify appropriate notification methods.

## Module 13: Troubleshooting Microsoft Windows Server 2008 Hardware

This module explains how to troubleshoot hardware issues in Windows Server 2008

### Lessons

- Identifying hardware support issues
- Dealing with physical failures
- Dealing with device driver failures

### Lab : Troubleshooting Hardware Issues

- Evaluating disk issues
- Planning for server availability
- Planning for future capacity requirements
- Discussion – Server Hardware Issues

After completing this module, students will be able to:

- Identify hardware issues.
- Explain physical component failure.
- Manage device driver failure.

## Module 14: Troubleshooting Microsoft Windows Server 2008 Software

This module explains how to troubleshoot software issues in Windows Server 2008  
Lessons

- Planning for business continuity
- Reviewing log files
- Reviewing core OS components
- Evaluating security issues

### Lab : Troubleshooting Software Issues

- Resolving driver update issues
- Rolling back a patch
- Fixing version incompatibilities
- Reconfiguring software settings

After completing this module, students will be able to:

- Evaluate the effect of software problems.
- Identify troubleshooting log files.
- Identify core operating system components.
- Evaluate software security issues.

## Module 15: Troubleshooting Microsoft Windows Server 2008 Networks

This module explains how to troubleshoot network issues in Windows Server 2008  
Lessons

- Analyzing the scale of network issues
- Correcting IP connectivity issues
- Resolving names in Windows Server 2008

### Lab : Troubleshooting Network Problems

- Resolving high network usage issues
- Resolving server connectivity problems
- Resolving name resolution problems
- Resolving slow server response times

After completing this module, students will be able to:

- Identify common types of network problems.
- Resolve IP connectivity issues.
- Resolve name resolution issues.