

## **ITMC 1075**

### **Course Syllabus**

**1. Name of Course:** Installing and Configuring Windows 7 Client

**2. Number of Clock Hours:** 40

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

This course is intended for IT professionals who are interested in expanding their knowledge base and technical skills about Windows 7 Client. In this course, students learn how to install, upgrade, and migrate to Windows 7 client. Students then configure Windows 7 client for network connectivity, security, maintenance, and mobile computing. This course helps students prepare for the Exam 70-680, TS: Windows 7, Configuring. MOC 6292. Prerequisites: Basic PC hardware and devices, networking, Windows and Active Directory knowledge.

#### **4. Course Objectives**

After completing this course, students will be able to:

- Perform a clean installation of Windows 7, upgrade to Windows 7, and migrate user-related data and settings from an earlier version of Windows.
- Configure disks, partitions, volumes, and device drivers to enable a Windows 7 client computer.
- Configure file access and printers on a Windows 7 client computer.
- Configure network connectivity on a Windows 7 client computer.
- Configure wireless network connectivity on a Windows 7 client computer.
- Secure Windows 7 client desktop computers.
- Optimize and maintain the performance and reliability of a Windows 7 client computer.
- Configure mobile computing and remote access settings for a Windows 7 client computer.

#### **5. Rationale:**

Upon completion of this course, students will have a better understanding of Microsoft Windows 7, the most popular operating system in use today.

#### **6. Required Materials:**

Microsoft Official Curriculum, MOC 6292, included.

#### **7. Evaluation**

Those who participate in class discussions, complete course lab work, and miss no more than three class meetings will be awarded 4.0 continuing education units.

## 8. Course Outline

**Module 1: Installing, Upgrading, and Migrating to Windows 7** This module explains how to install, upgrade and migrate to Windows 7. It also describes the key features, editions, and hardware requirements of Windows 7. Lessons

- Preparing to Install Windows 7
- Performing a Clean Installation of Windows 7
- Upgrading and Migrating to Windows 7
- Performing Image-based Installation of Windows 7
- Configuring Application Compatibility

**Lab : Installing and Configuring Windows 7**

- Migrating Settings by using Windows Easy Transfer
- Configuring a Reference Image of Windows 7
- Configuring a Reference Image

After completing this module, students will be able to:

- Describe the key features, editions, and hardware requirements of Windows 7.
- Perform a clean installation of Windows 7
- Upgrade and Migrate to Windows 7 from an earlier version of Windows.
- Perform an image-based installation of Windows 7
- Resolve common application compatibility issues.

**Module 2: Configuring Disks and Device Drivers** This module examines how to configure disks, partitions, volumes, and device drivers to enable Windows 7 to function as desired. Lessons

- Partitioning Disks in Windows 7
- Managing Disk Volumes
- Maintaining Disks in Windows 7
- Installing and Configuring Device Drivers

**Lab : Configuring Disks and Device Drivers**

- Configuring Disks
- Configuring Disk Quotas (Optional)
- Updating a Device Driver

After completing this module, students will be able to:

- Configure disk partitions on a Windows 7 client computer
- Create and manage disk volumes
- Manage file system fragmentation and disk quotas
- Install and configure device drivers

**Module 3: Configuring File Access and Printers on Windows 7 Client Computers** This module explains how to manage access to shared folders and printers on a computer running Windows 7. Specifically, it describes how to share and secure folders, configure folder compression, and how to install, configure, and administer printing. Lessons

- Overview of Authentication and Authorization
- Managing File Access in Windows 7
- Managing Shared Folders
- Configuring File Compression
- Managing Printing

Lab : Configuring File Access and Printers on Windows 7 Client Computers

- Create and Configure a Public Shared Folder for all Users
- Configuring Shared Access to Files for Specific Users
- Creating and Sharing a Printer

After completing this module, students will be able to:

- Describe authentication and authorization
- Manage file access on a Windows 7 client computer
- Create and manage shared folders
- Configure file compression
- Install, configure, and administer printers

Module 4: Configuring Network Connectivity This module explains both IPv4 and IPv6 network connectivity. It also describes how to implement automatic IP Address Allocation and troubleshoot network connectivity. Lessons

- Configuring IPv4 Network Connectivity
- Configuring IPv6 Network Connectivity
- Implementing Automatic IP Address Allocation
- Overview of Name Resolution
- Troubleshooting Network Issues

Lab : Configuring Network Connectivity

- Configuring IPv4 Addressing
- Configuring IPv6 Addressing
- Troubleshooting Network Connectivity

After completing this module, students will be able to:

- Configure IPv4 network connectivity.
- Configure IPv6 network connectivity.
- Implement automatic IP address allocation.
- Troubleshoot common network related issues by using the tools available in Windows 7.

Module 5: Configuring Wireless Network Connections This module describes key wireless network technologies and how to configure wireless network components and the Windows 7 elements that are necessary to access wireless networks.

Lessons

- Overview of Wireless Networks
- Configuring a Wireless Network

Lab : Configuring Wireless Network Connections

- Determining the appropriate configuration for a wireless network
- Troubleshooting Wireless Connectivity

After completing this module, students will be able to:

- Describe the standards and technologies related to wireless network connections.
- Configure a wireless network connection.

Module 6: Securing Windows 7 Desktops This module describes how to make a Windows 7 computer more secure while ensuring usability is not sacrificed in the process.

Specifically, it describes Windows Firewall, User Account Control, Windows Defender, and Security in Internet Explorer 8. Lessons

- Overview of Security Management in Windows 7
- Securing a Windows 7 Client Computer by Using Local Security Policy Settings

- Securing Data by Using EFS and BitLocker
- Configuring Application Restrictions
- Configuring User Account Control
- Configuring Windows Firewall
- Configuring Security Settings in Internet Explorer 8
- Configuring Windows Defender

Lab : Configuring UAC, Local Security Policies, EFS, and AppLocker

- Using Action Center
- Configuring Local Security Policies
- Encrypting Data
- Configuring AppLocker

Lab : Configuring Windows Firewall, Internet Explorer 8 Security Settings, and Windows Defender

- Configuring Windows Firewall
- Configuring Internet Explorer 8 Security
- Configuring Windows Defender

After completing this module, students will be able to:

- Explain the security management features of Windows 7.
- Configure local security policy settings on a Windows 7 client computer.
- Secure data by using EFS and BitLocker.
- Configure application restrictions by using AppLocker.
- Configure user account control settings.
- Configure Windows Firewall on a Windows 7 client computer.
- Configure security-related settings in Internet Explorer to help protect a Windows 7 client computer that is connected to the Internet.
- Configure Windows Defender to help protect a Windows 7 client computer against malicious software.

Module 7: Optimizing and Maintaining Windows 7 Client Computers This module describes how to use the monitoring and configuration tools to obtain information about Windows 7 performance and how to troubleshoot performance and reliability problems.

Lessons

- Maintaining Performance by Using the Windows 7 Performance Tools
- Maintaining Reliability by Using the Windows 7 Diagnostic Tools
- Backing Up and Restoring Data by Using Windows Backup
- Restoring a Windows 7 System by Using System Restore Points
- Configuring Windows Update

Lab : Optimizing and Maintaining Windows 7 Client Computers

- Monitoring System Performance
- Backing Up and Restoring Data
- Configuring System Restore Points
- Configuring Windows Update

After completing this module, students will be able to:

- Maintain the performance of a Windows 7 client computer by using performance management tools.
- Maintain reliability of a Windows 7 client computer by using the diagnostic tools.

- Back up and restore data on a Windows 7 client computer by using Windows Backup.
- Restore a Windows 7 system by using system restore points.
- Configure Windows Update on a Windows 7 client computer.

Module 8: Configuring Mobile Computing and Remote Access in Windows 7 This module explains how to configure mobile devices and remote access. It also discusses DirectAccess and BranchCache which are new for Windows 7. Lessons

- Configuring Mobile Computer and Device Settings
- Configuring Remote Desktop and Remote Assistance for Remote Access
- Configuring DirectAccess for Remote Access
- Configuring BranchCache for Remote Access

Lab : Configuring Mobile Computing and Remote Access in Windows 7

- Creating a Sync Partnership
- Configuring Power Options
- Enabling Remote Desktop
- Enabling BranchCache

After completing this module, students will be able to:

- Configure mobile computer and device settings on a Windows 7 client computer.
- Configure Remote Desktop and Remote Assistance on a Windows 7 client computer.
- Configure DirectAccess on a Windows 7 client computer for remote access.
- Configure BranchCache on a branch office Windows 7 client computer.