

Implementing and Managing Windows 10

Course Outline

Module 1: Overview of Windows 10

This module describes the Windows 10 operating system. It describes the new features in Windows 10, and the important changes since Windows 8.1. It describes the use, navigation, and customization of the enhanced Windows 10 user interface. Additionally, this module describes the Windows 10 features that make it beneficial for organizations of different sizes.

Lessons

- Introducing Windows 10
- Navigating the Windows 10 User Interface

Lab : Navigating and Customizing the User Interface

- Navigating the Windows 10 User Interface
- Configuring the Start Screen
- Configuring the Desktop

After completing this module, students will be able to:

- Describe important new features of Windows 10.
- Navigate and customize the Windows 10 interface.

Module 2: Installing Windows 10

This module introduces the different editions of Windows 10, and the differences between them. It describes the requirements and available options for installing Windows 10 on a device, and provides instructions for installing, or upgrading to, Windows 10. Additionally, this module provides points that you should consider when deciding between an upgrade or migration to Windows 10, and the supported upgrade paths from older versions of the Windows operating system.

Lessons

- Installing Windows 10
- Upgrading to Windows 10

Lab : Installing Windows 10

- Upgrading Windows 7 to Windows 10
- Migrating User Settings

After completing this module, students will be able to:

- Choose how to install Windows 10.
- Describe the process of upgrading to Windows 10.

Module 3: Configuring Your Device

This module explains how to configure Windows 10 by using tools such as the Settings app, Control Panel, Windows PowerShell, and Group Policy Objects (GPOs). It describes the different types of user accounts, and the benefits of using a Microsoft account. It also covers the common configuration options in Windows 10. Additionally, this module describes Microsoft OneDrive and its integration with Windows 10.

Lessons

- Overview of Tools You Can Use to Configure Windows 10
- Common Configuration Options
- Managing User Accounts
- Using OneDrive

Lab : Configuring Windows 10

- Using the Settings App
- Using Control Panel
- Using Windows PowerShell
- Using GPOs

Lab : Synchronizing Settings with OneDrive

- Creating and Connecting a Microsoft Account
- Synchronizing Settings between Devices

After completing this module, students will be able to:

Describe the different tools that they can use to configure Windows 10.

Explain common configuration options.

Manage user accounts.

Use OneDrive with Windows 10.

Module 4: Configuring Network Connectivity

This module explains the use of tools to configure network settings, including the Settings app, the Network and Sharing Center, and Windows PowerShell. It describes the differences between Internet Protocol version 4 (IPv4) and Internet Protocol version 6 (IPv6) settings, and the benefits of IPv6. Additionally, it describes how to implement name resolution and provides an overview of the Domain Name System (DNS) service. Lastly, this module describes how you can configure wireless connectivity in Windows 10, and explains remote access methods that are available in Windows 10, such as virtual private networks (VPNs), DirectAccess, and Remote Desktop.

Lessons

- Configuring IP Network Connectivity

- Implementing Name Resolution
- Implementing Wireless Network Connectivity
- Overview of Remote Access

Lab : Configuring Network Connectivity

- Verifying and Testing IPv4 Settings
- Configuring Automatic IPv4 Settings
- Configuring and Testing Name Resolution

After completing this module, students will be able to:

- Describe how to configure IP network connectivity.
- Implement name resolution.
- Implement wireless network connectivity.
- Describe options for remote access in Windows 10.

Module 5: Managing Storage

This module provides an overview of storage options, including hard disks, server-based storage, and virtual hard disks. It describes network storage options, including network-attached storage (NAS) and storage area networks (SANs), and cloud-based storage options, such as OneDrive and Microsoft Azure Storage. Additionally, this module describes the management and maintenance of disks, partitions, and volumes, and the configuration and use of the Storage Spaces feature.

Lessons

- Overview of Storage Options
- Managing Disks, Partitions, and Volumes
- Maintaining Disks and Volumes
- Managing Storage Spaces

Lab : Managing Storage

- Adding a Disk
- Creating a Simple Volume
- Compressing a Folder
- Enabling Disk Quotas
- Creating a Storage Space

After completing this module, students will be able to:

- Explain the different storage options in Windows 10.
- Manage disks, partitions, and volumes.

- Maintain disks, partitions, and volumes.
- Manage storage spaces.

Module 6: Managing Files and Printers

This module provides an overview of the file systems that Windows 10 supports. It explains how to configure file permissions, the effect of file permissions, how explicit and inherited permissions work, and how to include user and device claims in access permissions. This module also explains how to share folders, the tools that you can use to share folders, and the effective permissions when a user tries to access data in a shared folder that is protected by file permissions. Additionally, this module explains how to create and use Work Folders. The last lesson in this module describes how to add and share a printer, and how to manage client and server-side printing.

Lessons

- Overview of File Systems
- Configuring and Managing File Access
- Configuring and Managing Shared Folders
- Work Folders
- Managing Printers

Lab : Configuring and Managing Permissions and Shares

- Creating, Managing, and Sharing a Folder
- Using Conditions to Control Access and Effective Permissions

Lab : Installing and Managing a Printer

- Managing and Using a Printer

After completing this module, students will be able to:

- Describe and create file systems that Windows 10 supports.
- Configure file permissions.
- Explain how permission inheritance works.
- Implement conditions to limit access to files and folders.
- Create and manage shares.
- Create and use Work Folders.
- Configure and manage printers.

Module 7: Managing Apps in Windows 10

This module describes how to install and configure desktop apps and Microsoft Store apps in Windows 10. It explains how to install apps manually and automatically, and how to use Microsoft System Center Configuration Manager and Microsoft Intune to deploy apps. Additionally, it describes the Microsoft Store for Business and the way in which you can manage access to it. Lastly,

this module describes the Internet Explorer 11 and Microsoft Edge browsers, and explains how to configure and manage both browsers.

Lessons

- Overview of Providing Apps to Users
- The Microsoft Store
- Web Browsers

Lab : Installing and Updating Apps from the Microsoft Store

- Sideloaded an App
- Signing In with a Microsoft Account
- Installing and Updating Microsoft Store Apps

Lab : Configuring Windows 10 Web Browsers

- Configuring and Using Microsoft Edge
- Configuring and Using Internet Explorer

After completing this module, students will be able to:

- Describe the Windows 10 options for app deployment.
- Install and manage Microsoft Store apps.
- Configure Windows 10 web browsers.

Module 8: Managing Data Security

This module explains how the technologies available with Windows 10 work together to protect against data-related security threats. It provides an overview of these threats, and discusses possible mitigations and best practices for dealing with them. It describes defense-in-depth and Encrypting File System (EFS), and how you can use those methods to counter security threats. Additionally, this module describes how to configure, administer, and monitor BitLocker drive encryption.

Lessons

- Overview of Data-Related Security Threats
- Securing Data with EFS
- Implementing and Managing BitLocker

Lab : Managing Data Security

- Using EFS
- Using BitLocker

After completing this module, students will be able to:

- Understand data-related security threats.
- Secure data with Encrypting File System (EFS).

- Implement and manage BitLocker Drive Encryption.

Module 9: Managing Device Security

This module explains how to mitigate security threats with the use of Security Compliance Toolkit, Windows Defender Exploit Guard, and security settings in GPOs. It also describes User Account Control (UAC), and how to configure it. This module also explains the use of AppLocker to configure application usage and restrictions.

Lessons

- Using Security Settings to Mitigate Threats
- Configuring UAC
- Configuring Application Restrictions

Lab : Managing Device Security

- Creating Security Policies
- Testing Security Policies
- Configuring UAC Prompts
- Configuring and Testing AppLocker

After completing this module, students will be able to:

- Use security settings to mitigate threats.
- Configure UAC.
- Configure application restrictions.

Module 10: Managing Network Security

This module describes common network-related security threats, and describes options to mitigate them. It describes tools such as Windows Defender Firewall, IPsec connection security rules, and Windows Defender Antivirus, and how students can configure these tools to manage network security.

Lessons

- Overview of Network-Related Security Threats
- Windows Defender Firewall
- Connection Security Rules
- Windows Defender Antivirus

Lab : Managing Network Security

- Creating and Testing Inbound Rules
- Creating and Testing Outbound Rules
- Creating and Testing Connection Security Rules

- Configuring Windows Defender Antivirus

After completing this module, students will be able to:

- Describe network-related security threats.
- Manage Windows Defender Firewall.
- Configure connection security rules.
- Manage Windows Defender Antivirus.

Module 11: Troubleshooting and Recovery

This module describes device drivers, and how to use the Device Manager to view, configure, update, and roll back device drivers. It explains file-recovery methods in Windows 10, such as Backup and Restore, File History, and Previous Versions. This module also explains features such as System Restore, Startup Recovery, and System Image Recovery, and describes how to use restore points to roll back device configuration

Lessons

- Managing Devices and Drivers
- Recovering Files
- Recovering Devices

Lab : Troubleshooting and Recovery

- Managing Device Drivers
- Using File History to Recover Files
- Using Previous Versions to Recover Files
- Recovering a Device with a Restore Point
- Using the Advanced Start-up Options to Recover a Device

After completing this module, students will be able to:

- Describe and manage device drivers.
- Configure file recovery and revert to previous versions of files.
- Describe and use device recovery features in Windows 10.

Module 12: Maintaining Windows 10

This module describes Windows Update, and Windows Update for Business, and how to configure Windows 10 settings to ensure updates occur. It describes how to use Windows Server Update Services (WSUS), Configuration Manager, or Intune to distribute updates within organizations. This module also explains how to use Event Viewer and Performance Monitor in Windows 10.

Lessons

- Updating Windows

- Monitoring Windows 10
- Optimizing Performance

Lab : Maintaining Windows 10

- Configuring Updates for a Single Device
- Configuring Updates with GPOs
- Monitoring Events
- Monitoring Reliability and Performance