

## MD-100T00 - A: Windows 10

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### Course Summary

#### Description

In this course, students will learn how to support and configure Windows 10 desktops in an organizational environment. Students will develop skills that include learning how to install, customize, and update Windows 10 operating systems. Students will learn how to managing storage, files, and devices as well as how to configure network connectivity for Windows 10. Students will also learn how to secure the Windows 10 OS and protect the data on the device. Finally, students will learn how to manage and troubleshoot Windows 10.

#### Objectives

After taking this course, students will be able to:

- Install and customize Windows 10
- Configure Updates for Windows.
- Configure devices and drivers for Windows.
- Configure storage for Windows.
- Configure network and remote management settings in Windows.
- Configure and manage browsers and applications in Windows.
- Configure account access and authentication.
- Configure file and folder permissions.
- Describe methods for securing Windows 10, common threats and methods for mitigating against them.
- Troubleshoot Windows and application installations.
- Troubleshoot hardware and driver issues.
- Troubleshoot file issues and perform recoveries

#### Topics

- Installing Windows
- Post-installation Configuration and Personalization
- Updating Windows in Windows 10
- Configuring Networking
- Configuring Storage
- Managing Apps in Windows 10
- Configuring Authorization & Authentication
- Configuring Data Access and Usage
- Configuring Threat Protection and Advanced Security
- Supporting the Windows 10 Environment
- Troubleshooting Files & Applications
- Troubleshooting the OS
- Troubleshooting Hardware and Drivers

#### Audience

Candidates for this exam are IT professionals who perform installation, configuration, general local management and maintenance of Windows 10 core services. Candidates may also be familiar with enterprise scenarios and cloud-integrated services.

#### Prerequisites

Students should start this course already having the following skills:

- Basic understanding of computer networks and hardware concepts.
- Basic understanding of OS and Application concepts.
- Experience with using the Windows OS.

#### Duration

Five Days

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### Course Outline

#### I. *Installing Windows*

This module covers installing the Windows 10 OS. Students will learn the different editions of Windows 10, requirements, and new features introduced. This module covers how to install the OS, as well as methods for migrations and upgrading. Students will also learn about common tools used in the deployment process.

- A. Introducing Windows 10
- B. Windows 10 Editions and Requirements
- C. Deployment Options
- D. Upgrading to Windows 10
- E. Deployment Tools
  - Lab : In-place upgrade of Win7 to Win 10
  - Lab : Migrating User Settings using

#### II. *Post-installation Configuration and Personalization*

This module covers common post-installation tasks in Windows 10. Students will learn how to customize the user interface, as well as using the control panel and settings app to configure common OS settings. This course will also introduce students to Windows PowerShell. This module will cover how device drivers work and how they work. Students will also be introduced to managing and configuring hardware peripherals such as printers

- A. Configure and Customize the Windows Start Menu
- B. Common Configuration Options
- C. Advanced Configuration Methods
- D. Managing Drivers and Devices
  - Lab : Using Settings App & Control Panel
  - Lab : Using Group Policy Objects
  - Lab : Using PowerShell to Configure Windows
  - Lab : Managing local and network

#### III. *Updating Windows in Windows 10*

In this module, Students will learn about keeping Windows 10 up-to-date.

Students will be introduced to the new Windows servicing model and how it applies to various scenarios. Students will learn the various different methods for updating Windows and applications, as well as managing updates using tools like group policy and Windows Update for Business.

- A. Windows Servicing Model
- B. Updating Windows
  - Lab : Updating Windows

#### IV. *Configuring Networking*

In this module, Students will learn about networking concepts. This module will introduce to IPv4 and IPv6, and concepts like DNS. Students will learn how to configure network settings in Windows, as well as learn about wireless network technologies. The module will conclude with methods of managing Windows remotely.

- A. Configure IP Network Connectivity
- B. Implement Name Resolution
- C. Implement Wireless Network Connectivity
- D. Remote Access Overview
- E. Remote Management
  - Lab : Configuring Network Connectivity
  - Lab : Configuring and Testing Name Resolution
  - Lab : Remote

#### V. *Configuring Storage*

This module covers storage configuration and management in Windows 10. Students will be introduced to local, cloud and virtual storage options. This course will also cover configuring storage on client devices and introduce storage spaces.

- A. Overview of storage options
- B. Managing Local Storage
- C. Maintaining Disks and Volumes
- D. Managing Storage Spaces
  - Lab : Managing Storage
  - Lab : Compressing Folders
  - Lab : Enabling Disk Quotas

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### Course Outline (cont.)

- Lab : Creating a Storage Space
- Lab : Synchronizing files with OneDrive

#### VI. *Managing Apps in Windows 10*

In this module, Students will be introduced to App management in Windows 10. This module will cover the different types of apps and supported installation methods. Students will learn how to install apps using manual and automated methods, as well as manage app delivery using the Windows Store. Finally, this module will cover the differences between Internet Explorer and Microsoft Edge.

- Providing Apps to Users
- Managing Universal Windows Apps
- Web Browsers in Windows 10
  - Lab : Sideload an App
  - Lab : Installing and Updating Microsoft Store Apps
  - Lab : Configuring Internet Explorer Enterprise 10.

#### VII. *Configuring Authorization & Authentication*

This module introduces the tools and features of Windows 10 for authorizing access to Windows 10 clients. Students will learn about methods for how users sign-in to Windows 10. This module also covers restricting what users can or cannot do on a device through methods like UAC and account types.

- Authentication
- Configuring User Account Control
- Implementing Device Registration
  - Lab: Joining a Domain
  - Lab : Lab: Creating Security Policies
  - Lab: Configuring

#### VIII. *Configuring Data Access and Usage*

In this module, Students will learn about permissions. This module will cover considerations for different files systems. Students will learn how to configure file and folder permissions as well as shared folders. The module will

conclude with configuring settings through methods such as local and group policy.

- Overview of File Systems
- Configuring and Managing File Access
- Configuring and Managing Shared Folders
  - Lab : Creating, Managing, and Sharing a Folder
  - Lab : Using Conditions to Control Access and Effective

#### IX. *Configuring Threat Protection and Advanced Security*

This module introduces students to protecting devices from external threats. Students will learn about the different types of common threats. This module will teach students about using encryption, firewalls, and IPSec to help protect against threats. The module will conclude with how to configure and use Windows Defender and AppLocker.

- Malware and Threat Protection
- Windows Defender
- Connection Security Rules
- Advanced Protection Methods
  - Lab: Configuring Windows Defender
  - Lab: Creating Firewall Rules
  - Lab: Creating Connection Security Rules
  - Lab: Using EFS
  - Lab: Using Bitlocker
  - Lab: Configuring

#### X. *Supporting the Windows 10 Environment*

This module will cover the Windows 10 architecture and common environments. Students will be introduced to the various tools used in maintaining Windows. This module will also discuss methodologies for effectively troubleshooting issues and how to proactively manage and optimize Windows 10.

- Windows Architecture
- Support and Diagnostic Tools

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### Course Outline (cont.)

- C. Monitoring and Troubleshooting Computer Performance
  - Lab : Monitoring Events
  - Lab : Monitoring Reliability and

#### XI. *Troubleshooting Files & Applications*

This module helps students plan for file backup and recovery. Students will learn how to plan and configure data protection strategies and how to perform various file and system recovery methods. This module also includes common methods for troubleshooting application installation issues, compatibility issues, and resolving browser issues.

- A. File Recovery in Windows 10
- B. Application Troubleshooting
  - Lab : Using File History to Recover Files
  - Lab : Troubleshooting Desktop Apps
  - Lab : Troubleshooting Application Compatibility Issues
  - Lab : Troubleshooting Microsoft Edge

#### XII. *Troubleshooting the OS*

In this module, Students will learn how to troubleshoot startup and service issues related to the operating system. This module will teach the different startup and recovery options, and how to troubleshoot different Windows services.

- A. Troubleshooting Windows Startup
- B. Troubleshooting Operating System Service Issues
  - Lab : Recovering using Reset This PC
  - Lab : Recovering using a Restore

#### XIII. *Troubleshooting Hardware and Drivers*

This module introduces hardware troubleshooting. Students will learn about driver management and how to troubleshoot devices. Students will also learn steps for troubleshooting system

hardware and external peripherals such as USB drives and printers, including diagnostic methods and remediation.

- A. Troubleshooting Device Driver Failures
- B. Overview of Hardware Troubleshooting
- C. Troubleshooting Physical Failures
  - Lab : Recovering using Driver