Administering Windows Server Training

Duration: **5 Day**

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Overview

The **Administering Windows Server** course is a five-day programme designed for IT professionals who already have some knowledge of Windows operating systems and want to develop the skills required to install, configure, and administer Windows Server environments.

The course focuses on managing **Windows Server 2019, Windows Server 2022, and Windows Server 2025** within an existing Windows infrastructure.

Participants cover the core areas of Windows Server administration, from installation and initial configuration through identity management, storage, networking, security, Group Policy, monitoring, and maintenance.

The programme also introduces key administration tools including Server Manager, Windows Admin Center, and PowerShell. Learners develop practical skills for managing server roles and features, administering Active Directory Domain Services, controlling user and group access, configuring essential services such as DNS, DHCP, and IIS, and maintaining secure and reliable Windows Server systems.

The later sections of the course focus on operational maintenance, including updates, auditing, event logs, scheduled tasks, system monitoring, backup, and recovery.

Prerequisites

Participants should ideally have:

- A basic understanding of networking fundamentals
- Basic knowledge of server hardware
- Experience supporting and configuring Windows client operating systems such as Windows 10 or Windows 11
- Previous experience with Windows Server is beneficial but not mandatory

Who Should Attend

This course is particularly suitable for:

- IT professionals who are relatively new to Windows Server administration
- Service desk professionals who want to expand their knowledge of Windows Server environments
- IT professionals experienced in non-Microsoft technologies who want to cross-train on Windows Server 2019, Windows Server 2022, or Windows Server 2025
- System administrators
- Infrastructure specialists
- Technical staff working with Active Directory and Windows-based enterprise environments

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What You Will Learn

By the end of the course, participants will be able to:

- Install and configure Windows Server 2019, 2022, and 2025
- Perform clean installations and initial configuration
- Work with Server Core
- Add server roles and features
- Use Server Manager, Windows Admin Center, and PowerShell
- Administer Active Directory Domain Services
- Create and manage users, computers, and groups
- Work with Managed Service Accounts
- Delegate administrative responsibilities
- Configure disks, volumes, and Storage Spaces
- Secure file access with NTFS permissions
- Configure shared folders and network access
- Configure SMB signing and encryption
- Use FSRM quotas and file screens
- Create, apply, and troubleshoot Group Policy Objects
- Configure and manage DHCP and DNS
- Install and configure IIS
- Manage password and account lockout policies
- Configure Windows LAPS
- Protect data using BitLocker
- Monitor and maintain Windows Server systems
- Manage event logs, scheduled tasks, backups, and restores

Outline

Module 1: Installing Windows Server

This module introduces Windows Server installation and initial configuration.

Topics include:

- Comparing Windows Server editions
- Identifying hardware requirements
- Performing clean installations
- Completing initial configuration tasks
- Upgrading and migrating
- Configuring Server Core
- Adding roles and features
- Windows Server activation models

Module 2: Using Administration Tools

This module focuses on local and remote administration tools.

Topics include:

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- Managing servers with Server Manager
- Managing servers with Windows Admin Center
- Installing Remote Server Administration Tools
- Configuring and using Remote Desktop
- Introduction to Windows PowerShell
- Secure administration using least privilege

Module 3: Creating and Managing Identities

This module covers identity management in Active Directory environments.

Topics include:

- Identities and identity management
- Active Directory Domain Services
- Active Directory components
- Deploying domain controllers
- Microsoft Entra ID and hybrid identity
- Creating and managing Active Directory user accounts
- Using the Active Directory Recycle Bin
- Managing computer accounts
- Managed Service Accounts
- Delegating administration

Module 4: Creating and Managing Groups

Topics include:

- Groups and group scopes
- Default groups
- Special identities
- Group management best practices
- Managing group memberships

Module 5: Managing Storage

This module focuses on Windows Server storage configuration.

Topics include:

- Initialising disks
- Partitioning disks
- GPT architecture
- Secure Boot
- Trusted Boot
- Comparing file systems
- Maintaining disks and volumes
- Network storage
- Cloud storage
- Storage Spaces

Module 6: Configuring File Security and Network Access

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This module covers secure access to organisational data.

Topics include:

- NTFS permissions
- File system security
- Shared folders
- Network data access
- Administrative shares
- SMB signing
- SMB encryption
- File Server Resource Manager
- Quotas
- File screens

Module 7: Managing Group Policy

Topics include:

- Group Policy overview
- Creating Group Policy Objects
- Applying Group Policies
- Security filtering
- Policies and Preferences
- Administering GPOs
- Administrative Templates
- Central Store
- Group Policy reporting
- Group Policy troubleshooting

Module 8: Configuring Network Services

This module examines key Windows Server network services.

Topics include:

- Administering DHCP
- Creating and managing DHCP scopes
- Managing leases
- Understanding DNS
- Administering DNS
- Creating and managing DNS zones
- Managing DNS records
- DNS forwarding
- Installing the IIS Web Server role
- Managing website properties

Module 9: Securing Windows Server

This module focuses on technologies and policies used to protect Windows Server environments.

Topics include:

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- Password policies
- Account lockout policies
- Fine-grained password policies
- Windows LAPS
- Securing local accounts
- Encryption
- Active Directory Certificate Services overview
- Deploying trusted certificates
- BitLocker
- Data protection

Module 10: Monitoring and Maintaining Windows Server

This module focuses on ongoing server operations and system maintenance.

Topics include:

- Configuring and deploying updates
- Auditing Windows Server
- Managing event logs
- Monitoring background services
- Scheduling tasks
- Backing up core service data
- Restoring core service data

Exercises

The course includes the following practical exercises:

1. Install Windows Server 2022 Desktop Edition
2. Complete a Server Core installation
3. Manage multiple servers with Server Manager
4. Install and configure Windows Admin Center
5. Install Remote Server Administration Tools
6. Automate tasks with Windows PowerShell
7. Create and manage user accounts
8. Join computers to the domain and manage computer accounts
9. Create and use Managed Service Accounts
10. Delegate management of Active Directory objects
11. Create and manage groups
12. Delegate group management and prevent accidental deletion
13. Configure disks for data storage
14. Create a Storage Space
15. Secure data access using NTFS permissions
16. Deploy network shares
17. Control storage usage using file quotas
18. Control storage usage with file screens
19. Create and link Group Policy Objects
20. Deploy preferences using Group Policy
21. Create a Central Store and add Administrative Templates
22. Validate and troubleshoot Group Policy application

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23. Create a DHCP scope and configure leases
24. Create a DNS zone and manage records
25. Install IIS and configure the default website
26. Apply password policies for users and administrators
27. Configure Windows LAPS
28. Configure and enable BitLocker
29. Configure event logging to audit server activity
30. Back up and restore Active Directory data