

# Windows Server Administration- Advanced

Module 1: Installing, upgrading, and migrating servers and workloads

## Lessons

- Introducing Windows Server
- Preparing and installing Server Core
- Preparing for upgrades and migrations
- Migrating server roles and workloads
- Windows Server activation models
- Configuring Active directory domain services, certificate services and rights management services

Module 2: Configuring local storage

## Lessons

- Managing disks in Windows Server
- Managing volumes in Windows Server

Module 3: Implementing enterprise storage solutions

#### Lessons

- Overview of DAS, NAS, and SANs
- Comparing Fibre Channel, iSCSI, and Fibre Channel over Ethernet
- Understanding iSNS, DCB, and MPIO
- Configuring sharing in Windows Server 2016

Module 4: Implementing Storage Spaces and Data DE duplication

# Lessons

- Implementing Storage Spaces
- Managing Storage Spaces
- Implementing Data Deduplication



# Module 5: Installing and configuring Hyper-V and virtual machines

## Lessons

- Overview of Hyper-V
- Installing Hyper-V
- Configuring storage on Hyper-V host servers
- Configuring networking on Hyper-V host servers
- Configuring Hyper-V virtual machines
- Managing virtual machines

# Module 6: Deploying and managing Windows and Hyper-V containers

## Lessons

- Overview of containers in Windows Server
- Deploying Windows Server and Hyper-V containers
- Installing, configuring, and managing containers by using Docker

# Module 7: Overview of high availability and disaster recovery

## Lessons

- Defining levels of availability
- Planning high availability and disaster recovery solutions with Hyper-V virtual machines
- Backing up and restoring by using Windows Server Backup
- High availability with failover clustering in Windows Server 2016

## Module 8: Implementing failover clustering

## Lessons

- Planning a failover cluster
- Creating and configuring a new failover cluster
- Maintaining a failover cluster
- Troubleshooting a failover cluster
- Implementing site high availability with stretch clustering

# Module 9: Implementing failover clustering with Windows Server

## Lessons

- Overview of the integration of Hyper-V Server 2016 with failover clustering
- Implementing Hyper-V VMs on failover clusters
- Key features for VMs in a clustered environment

# Module 10: Implementing Network Load Balancing

## Lessons

- Overview of NLB
- Configuring an NLB cluster
- Planning an NLB implementation

# Module 11: Creating and managing deployment images

## .Lessons

- Introduction to deployment images
- Creating and managing deployment images by using MDT
- Virtual machine environments for different workloads

# Module 12: Managing, monitoring, and maintaining virtual machine installations

## Lessons

- WSUS overview and deployment options
- Update management process with WSUS
- Overview of Windows PowerShell DSC
- Overview of Windows Server 2016 monitoring tools
- Deep Dive on Performance Monitor
- Monitoring event logs