

# **Course Outline**

# **Module 1: Planning Server Upgrade and Migration**

This module explains how to plan a server upgrade and migration strategy.

#### Lessons

- Considerations for Upgrades and Migrations
- Creating a Server Upgrade and Migration Plan
- Planning for Virtualization

## Lab: Planning a Server Upgrade and Migration

## After completing this module, students will be able to:

- Describe the factors to consider when performing a server upgrade and migration.
- Create a plan for a server upgrade and migration.
- Plan for server virtualization.

# Module 2: Planning and Implementing a Server Deployment Strategy

This module explains how to design an automated server installation strategy and plan and implement a server deployment infrastructure.

#### Lessons

- Selecting an Appropriate Server Deployment Strategy
- Implementing an Automated Deployment Strategy

## Lab: Planning and Implementing a Server Deployment Infrastructure

- Select an appropriate server deployment strategy.
- Implement an automated deployment strategy.





# Module 3: Planning and Deploying Servers Using Virtual Machine Manager

This module explains how to plan and deploy a Virtual Machine Manager (VMM) infrastructure for deploying servers.

#### Lessons

- System Center 2012 R2 Virtual Machine Manager Overview
- Implementing a Virtual Machine Manager Library and Profiles
- Planning and Deploying Virtual Machine Manager Services

# Lab: Planning and Deploying Virtual Machines by Using Virtual Machine Manager

## After completing this module, students will be able to:

- Describe the core VMM architecture and components.
- · Implement VMM libraries and profiles.
- Plan and deploy VMM services.

# Module 4: Designing and Maintaining an IP Configuration and Address Management Solution

This module explains how to design and maintain IP address management (IPAM) and a Dynamic Host Configuration Protocol (DHCP) solution.

#### Lessons

- Designing DHCP Servers
- Planning DHCP Scopes
- Designing an IPAM Provisioning Strategy
- Managing Servers and Address Spaces by Using IPAM

# Lab: Designing and Maintaining an IP Configuration and IP Address Management Solution

- Design a DHCP server implementation.
- Plan DHCP scope configuration and options.
- Design an IPAM provisioning strategy.
- Manage servers and address spaces by using IPAM.





# **Module 5: Designing and Implementing Name Resolution**

This module explains how to design a name resolution strategy.

#### Lessons

- Designing a DNS Server Implementation Strategy
- Designing the DNS Namespace
- Designing DNS Zones
- Designing DNS Zone Replication and Delegation
- Optimizing DNS Servers
- Designing DNS for High Availability and Security

# **Lab: Designing and Implementing Name Resolution**

- Design a Domain Name System (DNS) server-implementation strategy.
- Design a DNS namespace.
- Design and implement a DNS zone strategy.
- Design and configure DNS zone replication and delegation.
- Optimize the DNS server configuration.
- Design DNS for high availability and security.





# Module 6: Designing and Implementing an Active Directory Domain Services Forest and Domain Infrastructure

This module explains how to design and implement an AD DS forest and domain infrastructure.

#### Lessons

- Designing an Active Directory Forest
- Designing and Implementing Active Directory Forest Trusts
- Designing Active Directory Integration with Windows Azure Active Directory
- Designing and Implementing Active Directory Domains
- Designing DNS Namespaces in Active Directory Environments
- Designing Active Directory Domain Trusts

# Lab: Designing and Implementing an Active Directory Domain Services Forest Infrastructure

Lab: Designing and Implementing an Active Directory Domain Infrastructure

- Design an Active Directory forest.
- Design and implement Active Directory forest trusts.
- Design Active Directory integration with Windows Azure Active Directory.
- Design and implement Active Directory domains.
- Design DNS namespaces in an Active Directory environment.
- Design and implement Active Directory domain trusts.





# Module 7: Designing and Implementing an AD DS Organizational Unit Infrastructure

This module explains how to design and implement an OU infrastructure and an AD DS permissions model.

#### Lessons

- Planning the Active Directory Administrative Tasks Delegation Model
- Designing an OU Structure
- Designing and Implementing an AD DS Group Strategy

# Lab: Designing and Implementing an Active Directory OU Infrastructure and Delegation Model

## After completing this module, students will be able to:

- Plan an Active Directory administrative tasks delegation model.
- Design an OU structure.
- Design and implement an AD DS group strategy.

# Module 8: Designing and Implementing a Group Policy Object Strategy

This module explains how to design and implement a Group Policy Object (GPO) strategy.

#### Lessons

- Collecting the Information Required for a GPO Design
- Designing and Implementing GPOs
- Designing GPO Processing
- Planning Group Policy Management

### Lab: Designing and Implementing a Group Policy Object Strategy

- Collect and analyze the information required to facilitate a GPO design.
- · Create a GPO design and implement it.
- Create a GPO processing design.
- Plan GPO management.





# Module 9: Designing and Implementing an AD DS Physical Topology

This module explains how to design an AD DS sites topology and a domain controller placement strategy.

#### Lessons

- Designing and Implementing Active Directory Sites
- Designing Active Directory Replication
- Designing the Placement of Domain Controllers
- Virtualization Considerations for Domain Controllers
- Designing Highly Available Domain Controllers

# Lab : Designing and Implementing an Active Directory Domain Services Physical Topology

## After completing this module, students will be able to:

- Design and implement Active Directory sites.
- Design and configure Active Directory replication.
- Design domain controller placement.
- Plan for virtualization of the domain controller role.
- Design domain controller deployments for high availability.

# Module 10: Planning and Implementing Storage and File Services

This module explains how to plan and implement storage and file services.

#### Lessons

- Planning and Implementing iSCSI SANs
- Planning and Implementing Storage Spaces
- Optimizing File Services for Branch Offices

## Lab: Planning and Implementing Storage

- Plan and implement an Internet Small Computer System Interface (iSCSI) SAN.
- Plan and implement storage spaces.
- · Optimize file services for branch offices.







# **Module 11: Designing and Implementing Network Protection**

This module explains how to design and implement network protection.

#### Lessons

- Overview of Network Security Design
- Designing and Implementing a Windows Firewall Strategy
- Designing and Implementing a NAP Infrastructure

# **Lab: Designing and Implementing Network Protection**

## After completing this module, students will be able to:

- Describe the design process for network security.
- Design and implement a Windows Firewall strategy.
- Design and implement Network Access Protection (NAP).

# Module 12: Designing and Implementing Remote Access Services

This module explains how to design and implement remote access services.

### Lessons

- Planning and Implementing DirectAccess
- Planning and Implementing VPN
- Planning and Implementing Web Application Proxy
- Planning a Complex Remote Access Infrastructure

### Lab: Designing and Implementing Network Access Services

- Plan and implement DirectAccess.
- Plan and implement a virtual private network (VPN).
- Plan and implement a Web Application Proxy.
- Plan a complex remote access infrastructure.









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