

Microsoft Server Infrastructure Boot Camp Courses

**Bootcamp Title – MCSE: Server Infrastructure (1 Cert)**
Number of Days – 6
Number of Exams – 2
Number of Certifications – 1
Cost - $5,595

Certifications:

MCSE: Server Infrastructure

Exams:

**70-413:** Designing and Implementing a Server Infrastructure

**70-414:**Implementing an Advanced Server Infrastructure

Course Description:

The MCSE Server Infrastructure certification boot camp is a 6 day comprehensive deep dive into the Server Infrastructure covering topics such as implementing, designing and planning. This instructor led face to face training camp will teach you the skills needed to support a Server Infrastructure environment.

Class Objectives (*Following information customized from Microsoft Learning Test Objectives)*

**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**

After completing this module, students will be able to:

* 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**

After completing this module, students will be able to:

* 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**

After completing this module, students will be able to:

* 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 InfrastructureLab : Designing and Implementing an Active Directory Domain Infrastructure**

After completing this module, students will be able to:

* 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**

After completing this module, students will be able to:

* 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**

After completing this module, students will be able to:

* 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**

After completing this module, students will be able to:

* 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.

**Module 1: Overview of Management in an Enterprise Data Center**

In this module, students will be able to describe the enterprise data center and how to use System Center 2012 to manage the enterprise data center.

**Lessons**

* Overview of the Enterprise Data Center
* Overview of the Microsoft System Center 2012 R2 Components

**Lab : Considerations for Implementing an Enterprise Data Center**

After completing this module, students will be able to:

* Describe an enterprise data center.
* Describe how System Center 2012 components can be used to manage an enterprise data center*.*

**Module 2: Planning and Implementing a Server Virtualization Strategy**

In this module, students will be able to plan and implement a server virtualization strategy using System Center 2012.

**Lessons**

* Planning a VMM Deployment
* Planning and Implementing a Server Virtualization Host Environment

**Lab : Planning and Implementing a Server Virtualization Strategy**

After completing this module, students will be able to:

* Plan a server virtualization environment based on Windows Server 2012 Hyper-V and System Center 2012- Virtual Machine Manager (VMM).
* Implement a server virtualization environment based on Windows Server 2012 Hyper-V and VMM.

**Module 3: Planning and Implementing Networks and Storage for Virtualization**

In this module, students will be able to plan and implement the network and storage infrastructure required to deploy a virtualized server infrastructure.

**Lessons**

* Planning a Storage Infrastructure for Virtualization
* Implementing a Storage Infrastructure for Virtualization
* Planning and Implementing a Network Infrastructure for Virtualization
* Planning and Implementing Network Virtualization

**Lab : Planning and Implementing Virtual Networks and Storage**

After completing this module, students will be able to:

* Explain storage options available for virtual machines.
* Configure iSCSI storage in Windows Server 2012 and how to manage storage from VMM.
* Plan and implement a network infrastructure for server virtualization.
* Plan and implement network virtualization in Hyper-V and VMM.

**Module 4: Planning and Deploying Virtual Machines**

In this module, students will be able to plan and deploy virtual machines on Windows Hyper-V.

**Lessons**

* Planning a Virtual Machine Configuration
* Preparing for Virtual Machine Deployments with VMM
* Deploying Virtual Machines
* Planning and Implementing Hyper-V Replica

**Lab : Planning and Implementing a Virtual Machine Deployment and Management Strategy**

After completing this module, students will be able to:

* Plan a virtual machine configuration.
* Plan and configure the VMM profiles and templates that can be used to implement a VMM deployment.
* Plan and implement Hyper-V Replica.

**Module 5: Planning and Implementing a Virtualization Administration Solution**

In this module, students will be able to plan and implement a virtualization administration solution by using System Center 2012.

**Lessons**

* Planning and Implementing Automation with System Center 2012
* Planning and Implementing System Center 2012 Administration
* Planning and Implementing Self-Service Options in System Center 2012
* Planning and Implementing Updates in a Server Virtualization Infrastructure

**Lab : Planning and Implementing an Administration Solution for Virtualization**

After completing this module, students will be able to:

* Plan automation of a virtual machine environment using System Center 2012.
* Plan a delegated administration model in System Center 2012.
* Plan the self-service and automation of a virtual machine environment using the System Center 2012.
* Plan and implement updates for Hyper-V hosts using VMM.

**Module 6: Planning and Implementing a Server Monitoring Strategy**

In this module, students will be able to plan and implement a server monitoring strategy using the Windows Server 2012 tools and using Operations Manager.

**Lessons**

* Planning Monitoring in Windows Server 2012
* Overview of Operations Manager
* Planning and Configuring Monitoring Components
* Configuring Integration with VMM

**Lab : Implementing a Server Monitoring Strategy**

After completing this module, students will be able to:

* Plan a monitoring strategy using the Windows Server 2012 tools.
* Describe the Operations Manager components and describe how Operations Manager can be used to monitor physical and virtual servers.
* Plan and configure management packs, notifications and reporting.
* Configure the integration of Operations Manager and VMM.

**Module 7: Planning and Implementing High Availability for File Services and Applications**

In this module, students will be able to plan and implement an application and file services infrastructure that is highly available.

**Lessons**

* Planning and Implementing Storage Spaces
* Planning and Implementing a DFS
* Planning and Implementing NLB

**Lab : Planning and Implementing High Availability for File Services and Applications**

After completing this module, students will be able to:

* Plan and implement a highly available storage infrastructure using Storage Spaces.
* Plan and implement a highly available file services deployment using DFS.
* Plan and implement high availability for applications using NLB.

**Module 8: Planning and Implementing a High Availability Infrastructure Using Failover Clustering**

In this module, students will be able to plan and implement a high availability server infrastructure by using the failover clustering features in Windows Server 2012.

**Lessons**

* Planning an Infrastructure for Failover Clustering
* Implementing Failover Clustering
* Planning and Implementing Updates for Failover Clusters
* Integrating Failover Clustering with Server Virtualization
* Planning a Multisite Failover Cluster

**Lab : Planning and Implementing a Highly Available Infrastructure Using Failover Clustering**

After completing this module, students will be able to:

* Plan failover clustering.
* Implement failover clustering.
* Plan and implement updates by using Cluster-Aware Updating (CAU).
* Plan and implement failover clustering for Hyper-V virtual machines.

**Module 9: Planning and Implementing a Business Continuity Strategy**

In this module, students will be able to plan and implement a business continuity strategy in a Windows Server 2012 environment.

**Lessons**

* Overview of Business Continuity Planning
* Planning and Implementing Backup Strategies
* Planning and Implementing Recovery
* Planning and Implementing Backup and Recovery of Virtual Machines

**Lab : Implementing a Virtual Machine Backup Strategy with DPM**

After completing this module, students will be able to:

* Describe the high level requirements and strategies for implementing a business continuity strategy.
* Plan backup strategies for a variety of Windows roles.
* Plan and implement recovery of servers and data.
* Plan and implement a virtual machine backup and recovery strategy.

**Module 10: Planning and Implementing an Public Key Infrastructure**

In this Module, students will be able to plan and implement a PKI deployment, and plan and implement a certificate management solution.

**Lessons**

* Planning and Implementing Deployment of a Certification Authority
* Planning and Implementing Certificate Templates
* Planning and Implementing Certificate Distribution and Revocation
* Planning and Implementing Key Archival and Recovery

**Lab : Planning and Implementing an Active Directory Certificate Services Infrastructure**

After completing this module, students will be able to:

* Plan and implement a CA deployment hierarchy in AD CS.
* Design and implement a strategy for configuring and maintaining certificate templates.
* Design and implement a strategy for distributing and revoking certificates.
* Plan and implement private key and certificate recovery.

**Module 11: Planning and Implementing an Identity Federation Infrastructure**

In this module, students will be able to plan and implement an AD FS server deployment and claims aware application access.

**Lessons**

* Planning and Implementing an AD FS Server Infrastructure
* Planning and Implementing AD FS Claim Providers and Relying Parties
* Planning and Implementing AD FS Claims and Claim Rules
* Planning and Implementing Web Application Proxy

**Lab : Planning and Implementing an AD FS Infrastructure**

After completing this module, students will be able to:

* Plan and implement an AD FS server infrastructure.
* Plan and implement AD FS claim providers and relying parties.
* Plan and implement AD FS claims and claim rules.
* Plan and implement the Web Application Proxy with AD FS integration.

**Module 12: Planning and Implementing Data Access for Users and Devices**

In this module, students will be able to plan and implement Dynamic Access Control (DAC), Workplace Join and Work Folders.

**Lessons**

* Planning and Implementing DAC
* Planning Workplace Join
* Planning Work Folders

**Lab : Implementing DAC and Access Denied Assistance**

**Lab : Implementing Work Folders**

After completing this module, students will be able to:

* Plan and implement DAC.
* Describe and implement Work Place Join.
* Plan a Work Folders deployment.

**Module 13: Planning and Implementing an Information Rights Management Infrastructure**

In this module, students will be able to plan and implement an AD RMS deployment, plan and manage AD RMS templates and access, and plan and implement external access to AD RMS services.

**Lessons**

* AD RMS Overview
* Planning and Implementing an AD RMS Cluster
* Planning and Implementing AD RMS Templates and Policies
* Planning and Implementing External Access to AD RMS Services
* Planning and Implementing AD RMS Integration with Dynamic Access Control

**Lab : Planning and Implementing an AD RMS Infrastructure**

After completing this module, students will be able to:

* Describe what AD RMS is and the business scenarios addressed by AD RMS.
* Plan, implement, and manage an AD RMS cluster.
* Plan and implement AD RMS templates and policies.
* Plan and implement external access to AD RMS services.
* Plan the integration of AD RMS and DAC.