



Microsoft Azure Administrator

CR101i

18
Days

Microsoft Azure Administrator

Outline

In this course, students will learn about the Windows Server 2016 operating system, the domain environment, and the Azure cloud platform.

Most companies in the world work with the Microsoft operating system & the popular Azure cloud platform, to manage their computing and code development.

Students will be taught how to set up domain environments using Active Directory, which provides central control of all computers & users in a domain.

They will also be taught how to manage network services, such as DNS and DHCP servers.

Topics in the course include managing applications, services & servers in the Azure cloud platform, and the security aspects and hardening of on-premises systems and cloud environments.



Target Audience

Technical personnel and IT professionals who want to sharpen their knowledge and skills of working in Microsoft and Azure environments.



Prerequisites

Before attending this course, students must have:

- Experience working with Windows clients 7, 8, 8.1, and 10.
- Basic understanding of virtual environments.
- Basic knowledge of networking.



Objectives

The objectives of the course are to ensure that students obtain solid knowledge and hands-on experience with Windows server environments, and the Azure cloud platform.

Upon completing the course, graduates will be able to:

- Install Windows server 2016.
- Create and manage domain environments.
- Configure advanced features for Dynamic Host Configuration Protocol (DHCP) & IP addresses.
- Configure Domain Name System (DNS) services.
- Create basic PowerShell scripts.
- Implement group policies.
- Harden the Microsoft OS.
- Manage Azure based servers, services, and development platforms.



Content

Day 1 **Module 01** Introduction to Windows Client

- | Networking Review
- | Windows Environment
- | Client Configuration
- | Introduction to CMD
- | Users & Groups
- | Remote Connection
- | Maintaining Windows
- | Client Security Features

Day 2 **Module 02** Introduction to Windows Server 2016

- | Hardware Requirements
- | Installation and Editions
- | Server Core Vs GUI
- | Windows Server Roles and Features
- | Overview of AD DS
- | Components of AD DS
- | Promote Servers to DC
- | Install and upgrade DC via media
- | DC virtualization

Day 3 **Module 03** Domain Name System

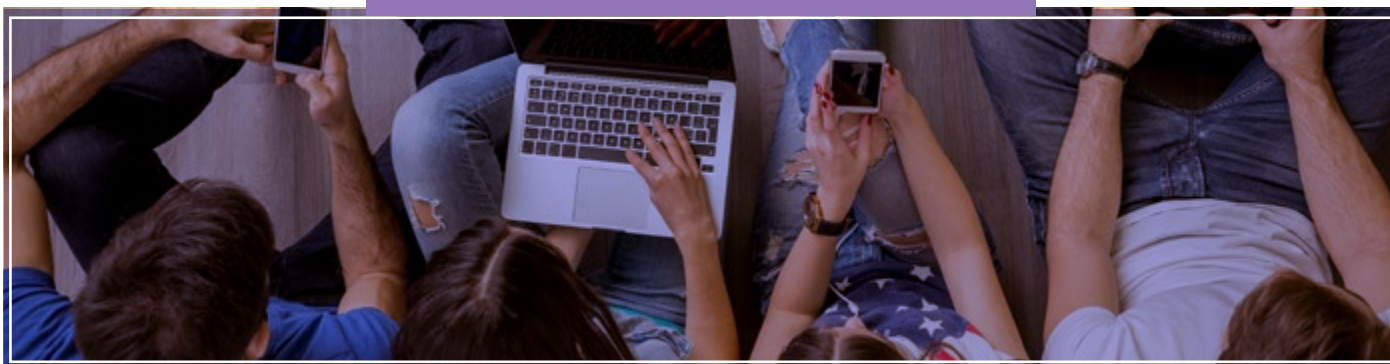
- | Fundamentals
- | DNS Zones and Records
- | DNS Configuration
- | Link-Local Multicast Name Resolution

Day 4 **Module 04** Active Directory

- | Managing User Accounts
- | Managing Groups
- | Managing Computer Objects
- | Managing Organizational Units
- | Bulk Operations
- | Delegation

Day 5 **Module 05** PowerShell

- | PowerShell Fundamentals
- | PowerShell as a Tool
- | PowerShell for Active Directory
- | PowerShell as a Weapon



Day 6 **Module 06**
Group Policy

- | GPO Introduction
- | GPO Management
- | Group Policy Management Editor
- | WMI Filters & Troubleshooting
- | Additional GPO Extensions

Day 9 **Module 09**
Disk Management

- | MBR Vs GPT
- | Basic Vs Dynamic Disks
- | Dynamic Disk Features
- | RAID
- | Disk Management Tool
- | Disk Partition Commands
- | Storage Spaces

Day 7 **Module 07**
Shares and Permissions

- | File Sharing
- | NTFS Permissions
- | Distributed File System
- | File Server Resource Manager

Day 10 **Module 10**
Microsoft Endpoint Security

- | BitLocker
- | AppLocker
- | Windows Firewall
- | Windows Defender

Day 8 **Module 08**
DHCP

- | DHCP Overview
- | DHCP Deployment
- | Advanced DHCP

Day 11 **Module 11**
Security Policies & Authentication

- | Network Operation Hardening
- | Account Security Policies
- | Additional Security Measures
- | NTLM Authentication
- | Kerberos Authentication



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Day
12**Module 12**
Azure Fundamentals**Understand Cloud Concepts**

- Identify the benefits and consideration of using cloud services.
- Describe the differences between infrastructure as a service (IaaS), Platform-as-a-Service (PaaS), and Software as a Service (SaaS).
- Describe the differences between public, private, and hybrid cloud modules.

Core Azure Services

- Core Azure architectural components
- Core workload products available in Azure

Core Solution and Management Tools in Azure

- Core solutions available in Azure
- Azure management tools

General Security & Network Security Features

- Azure security features
- Azure network security

Day
13**Module 13**
Azure Fundamentals**Identity, Governance, Privacy & Compliance Features**

- Core Azure identity services
- Azure governance feature description
- Azure Privacy and Compliance feature description

Methods for planning & management of costs

- Identify the factors affecting costs (resource types, services, locations, ingress and egress traffic, reserved instances, hybrid use benefit).
- The functionality and usage of the Pricing calculator and the Total Cost of Ownership (TCO) calculator.
- The functionality & usage of Azure Cost Management.

Day
14**Module 14**
Azure Fundamentals**Manage Azure Identities and Governance**

- Manage Azure AD objects
- Manage role-based access control (RBAC)

Implement and Manage Storage

- Manage Storage Accounts
- Manage data in Azure Storage
- Configure Azure files & Azure blob storage

Deploy & Manage Azure Compute Resources

- Configure VMs for high availability and scalability
- Automate deployment & configuration of VMs
- Create and configure VMs
- Create and configure containers
- Create and configure Web Apps

Day
15**Module 1**
Azure Fundamentals**Configure and Manage Virtual Networking**

- Implement and manage virtual networking
- Configure name resolution
- Secure access to virtual networks
- Configure load balancing
- Monitoring & troubleshooting virtual networking
- Integrated an on-premises networks with an Azure virtual network.

Monitor and back up Azure resources

- Monitor resources using Azure Monitor
- Implement backup and recovery

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