

20410: Installing and Configuring Windows Server® 2012

Course Overview

This course is part one in a series of three courses (410,411,412) that provides the skills and knowledge necessary to implement a core Windows Server 2012 infrastructure in an existing en-

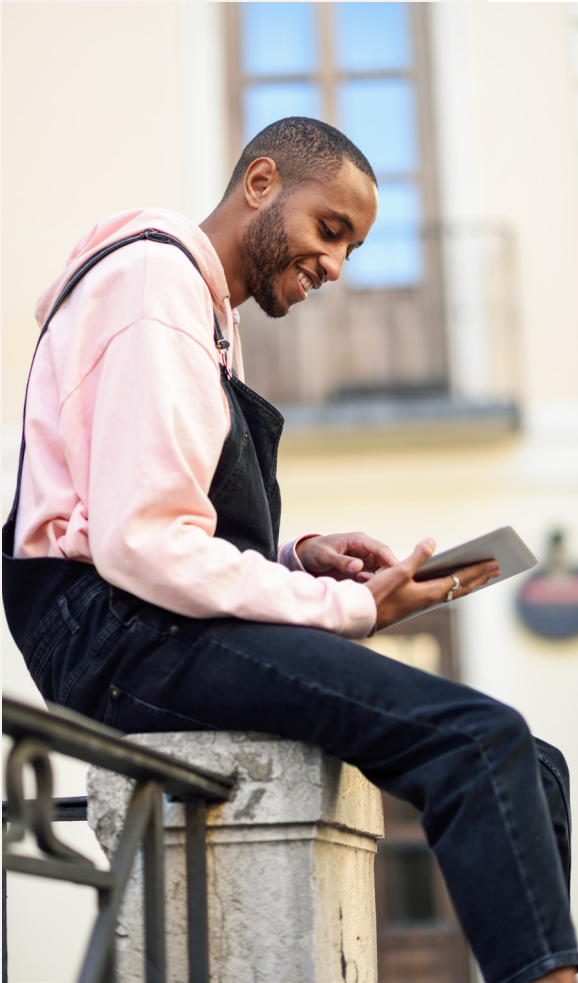
terprise environment.

What you will learn.

This course will teach you how to:

- Install and configure Windows Server 2012.
- Describe AD DS.
- Manage Active Directory objects.
- Automate Active Directory administration.
- Implement IPv4.
- Implement Dynamic Host Configuration Protocol (DHCP).
- Implement Domain Name System (DNS).
- Implement IPv6.
- Implement local storage.





- Implement file and print services.
- Implement Group Policy.
- Secure Windows servers by using Group Policy Objects (GPOs).
- Implement server virtualization by using Hyper-V.

Who is this course for?

The course is intended for IT

professionals who have basic knowledge and experience working with Windows OS and who want to develop the skills and knowledge necessary to install and perform the initial configuration of a Windows Server 2012 or Windows Server 2012 R2 server in an existing Windows server environment. Typically, candidates who are interested in attending this course include:

Requirement

- Primary understanding of networking fundamentals.
- An understanding of basic AD DS concepts.
- An awareness and understanding of security best practices.
- Basic knowledge of server hardware.

Experience working with, and configuring, Windows client operating systems, such as Windows 7 or Windows 8

Module 1: Deploying and Managing Windows Server 2012

Lessons

- Windows Server 2012 Overview
- Installing Windows Server 2012
- Post-Installation Configuration

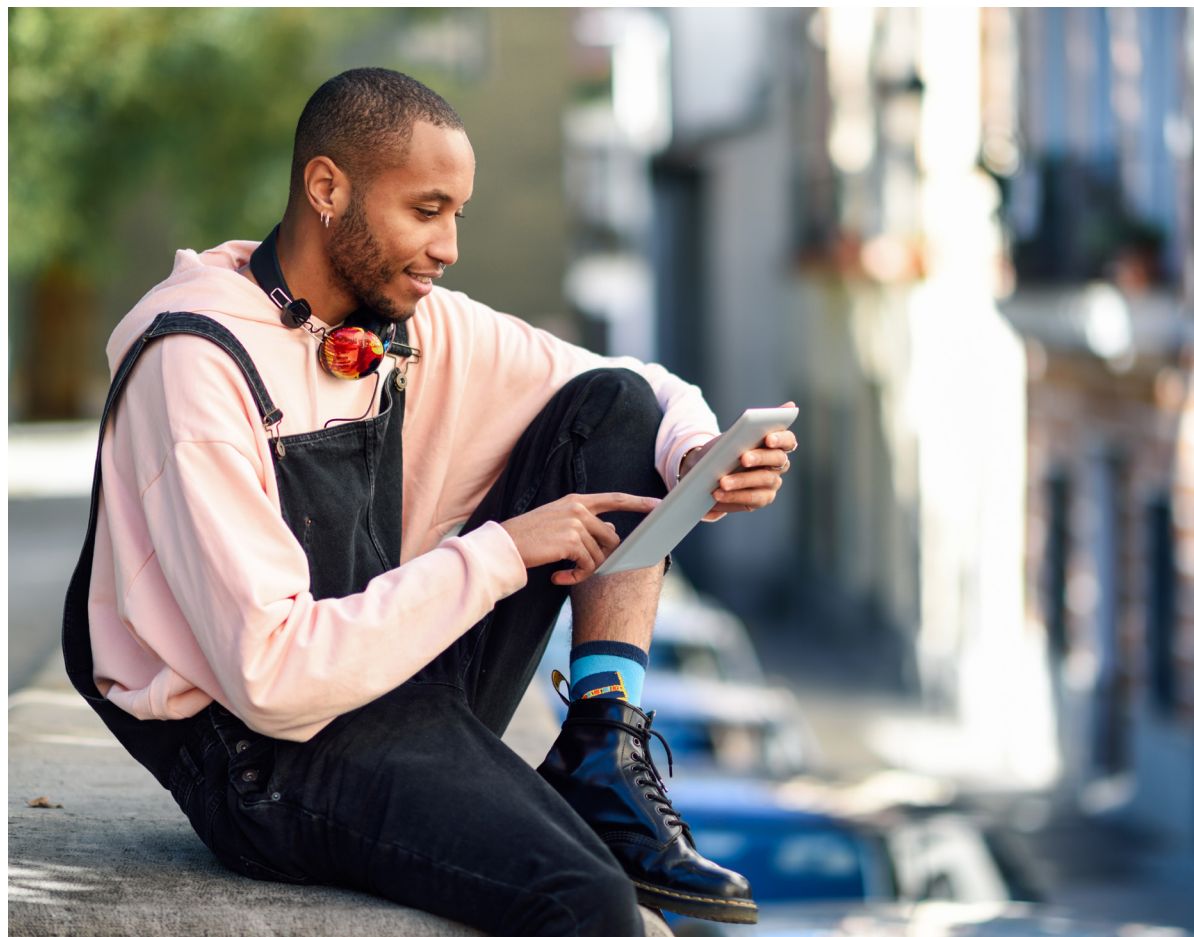
tion of Windows Server 2012

- Overview of Windows Server 2012 Management
- Introduction to Windows PowerShell
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Lab : Deploying and Managing Windows Server 2012

After completing this module, students will be able to:

- Describe Windows Server 2012.
- Install Windows Server 2012.
- Perform post installation configuration of Windows Server 2012.
- Describe the management tools available in Windows Server 2012.





- Perform basic administrative tasks using Windows PowerShell.

Module 2: Introduction to Active Directory Domain Services

Lessons

- Overview of AD DS
- Overview of Domain Controllers
- Installing a Domain Controller

Lab : Installing Domain Controllers

After completing this module, students will be able to:

- Describe the structure of AD DS.
- Describe the purpose of domain controllers.
- Install a domain controller.

Module 3: Managing Active Directory Domain Services Objects

Lessons

- Managing User Accounts
- Managing Groups
- Managing Computer Ac-

counts

- Delegating Administration

Lab : Managing Active Directory Domain Services Objects

After completing this module, students will be able to:

- Manage user accounts with graphical tools.
- Manage group accounts with graphical tools.
- Manage computer accounts.
- Delegate permissions to perform AD DS administration.

Module 4: Automating Active Directory Domain Services Administration

Lessons

- Using Command-line Tools for AD DS Administration
- Using Windows PowerShell for AD DS Administration
- Performing Bulk Operations with Windows PowerShell

Lab : Automating AD DS Administration by Using Win-



Windows PowerShell

- After completing this module, students will be able to:
- Use command line tools for AD DS administration.
- Use Windows PowerShell cmdlets for AD DS administration.
- Perform bulk operations by using Windows PowerShell.

Module 5: Implementing IPv4

Lessons

- Overview of TCP/IP
- Understanding IPv4 Addressing
- Subnetting and Supernetting
- Configuring and Troubleshooting IPv4

Lab : Implementing IPv4

After completing this module, students will be able to:

- Describe the TCP/IP protocol suite.
- Describe IPv4 addressing.
- Determine a subnet mask necessary for supernetting or subnetting.

- Configure IPv4 and troubleshoot IPv4 communication.

Module 6: Implementing Dynamic Host Configuration Protocol

Lessons

- Overview of the DHCP Server Role
- Configuring DHCP Scopes
- Managing a DHCP Database
- Securing and Monitoring DHCP

Lab : Implementing DHCP

After completing this module, students will be able to:

- Explain the DHCP server role.
- Configure DHCP scopes.
- Manage a DHCP database.
- Secure and monitor the DHCP server role.

Module 7: Implementing DNS

Lessons

- Name Resolution for Windows Clients and Servers
- Installing a DNS Server
- Managing DNS Zones



Lab : Implementing DNS

After completing this module, students will be able to:

- Describe name resolution for Windows operating system clients and Windows Server servers.
- Install and manage a DNS Server.
- Manage DNS zones.

Module 8: Implementing IPv6

Lessons

- Overview of IPv6
- IPv6 Addressing
- Coexistence with IPv4
- IPv6 Transition Technologies

Lab : Implementing IPv6

After completing this module, students will be able to:

- Describe the features and benefits of IPv6.
- Describe IPv6 addressing.
- Describe IPv6 coexistence with IPv4.
- Describe IPv6 transition technologies.
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Module 9: Implementing Local Storage

Lessons

- Overview of Storage
- Managing Disks and Volumes
- Implementing Storage Spaces

Lab : Implementing Local Storage

After completing this module, students will be able to:

- Describe various storage technologies.
- Explain how to manage disks and volumes.
- Explain how to implement Storage Spaces.

Module 10: Implementing File and Print Services

Lessons

- Securing Files and Folders
- Protecting Shared Files and Folders by Using Shadow Copies
- Configuring Work Folders
- Configuring Network Printing

Lab : Implementing File and Print Services

After completing this module, students will be able to:

- Secure shared files and folders.
- Protect shared files and folders by using shadow copies.
- Configure the Work Folders role service.

Module 11: Implementing Group Policy

Lessons

- Overview of Group Policy
- Group Policy Processing
- Implementing a Central Store for Administrative Templates

Lab : Implementing Group Policy

After completing this module, students will be able to:

- Create and manage Group Policy Objects (GPOs).
- Describe Group Policy processing.
- Implement a Central Store

for Administrative Templates.

Module 12: Securing Windows Servers Using Group Policy Objects

Lessons

- Security Overview for Windows Operating Systems
- Configuring Security Settings
- Restricting Software
- Configuring Windows Firewall with Advanced Security

Lab : Increasing Security for Server ResourcesLab : Configuring AppLocker and Windows Firewall

After completing this module, students will be able to:

- Describe Windows Server operating system security.
- Configure security settings by using Group Policy.
- Increase security for server resources.
- Restrict unauthorized software from running on servers and clients.
- Configure Windows Firewall



with Advanced Security.

Module 13: Implementing Server Virtualization with Hyper-V

Lessons

- Overview of Virtualization Technologies
- Implementing Hyper-V
- Managing Virtual Machine Storage
- Managing Virtual Networks

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Lab : Implementing Server Virtualization with Hyper-V

After completing this module, students will be able to:

- Describe virtualization technologies.
- Implement Hyper V.
- Manage virtual machine storage.
- Manage virtual networks.