

uCertify

Course Outline

**Networking with Windows
Server 2016 (70-741)**



Lesson



Practice test



Lab

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1. Course Objective

Prepare for the MCSA 70-741 exam using the Networking with Windows Server 2016 (70-741) course and lab. The lab is cloud-based, device-enabled, and can easily be integrated with an LMS. The MCSA Windows Server 2016 course and lab cover all the MCSA 70-741 exam objectives and include topics such as installing and configuring DNS Servers, creating and configuring DNS zones and records, understanding and configuring DNSSEC, implementing Windows Server 2016 IPAM, and more.

2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

3. Exercises

There is no limit to the number of times learners can attempt these. Exercises come with detailed remediation, which ensures that learners are confident on the topic before proceeding.

96
EXERCISES

4. Quizzes

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.

190
QUIZZES

5. Flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.

155
FLASHCARDS

6. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



7. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

8. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

9. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

10. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
 1. Best Postsecondary Learning Solution

- **2015**
 1. Best Education Solution
 2. Best Virtual Learning Solution
 3. Best Student Assessment Solution
 4. Best Postsecondary Learning Solution
 5. Best Career and Workforce Readiness Solution
 6. Best Instructional Solution in Other Curriculum Areas
 7. Best Corporate Learning/Workforce Development Solution

- **2016**
 1. Best Virtual Learning Solution
 2. Best Education Cloud-based Solution

3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution
6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

11. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the

chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

Syllabus

Chapter 1: Introduction

- About the 70-741 Networking with Windows Server 2016 Exam
- 70-741 Exam Topics
- About the MCSA 70-741 Cert Guide
- Objectives and Methods
- Book Features
- How This Book Is Organized

Chapter 2: Installing and Configuring DNS Servers

- DNS Fundamentals
- Windows Server 2016 DNS Installation
- Configure and Implement DNS Global Settings Using Windows PowerShell
- Configure Forwarders

- Configure DNS Delegation
- Configure DNS Socket Pool
- Configure Cache Locking
- Configure DNS Logging
- Configure DNS Delegated Administration
- Review All the Key Topics

Chapter 3: Creating and Configuring DNS Zones and Records

- Zone Type Overview
- Secondary Zones
- Stub Zones
- Primary Zones
- GlobalNames Zones
- DNSSEC
- Analyzing Zone-Level Statistics
- Zone Scavenging
- Record Options

- DNS Audit and Analytical Events
- Review All the Key Topics

Chapter 4: Configuring and Managing DNS Policies

- DHCP Options
- DHCP Name Protection
- Manage DNS Client Settings with PowerShell
- Manage DNS Server Settings with PowerShell
- Network Troubleshooting with PowerShell
- Understanding Routing
- Split DNS
- DNS Policies
- Review All the Key Topics

Chapter 5: Understanding and Configuring DNSSEC

- DNSSEC Planning
- Enabling DNSSEC
- DNSSEC Functionality

- DNSSEC Zone Signing Wizard
- DNSSEC Monitoring
- Trust Anchors
- ZSK/KSK Rollover Process
- DNSSEC Clients
- DNSSEC and Delegation
- Chain of Trust
- DNSSEC Record Types
- Review All the Key Topics

Chapter 6: Understanding and Configuring DANE

- DANE Overview
- DANE Security
- TLSA Records
- Configuring DANE
- Common DANE Failures
- Review All the Key Topics

Chapter 7: Installing and Configuring Windows Server 2016 DHCP Server

- DHCP Fundamentals
- DHCP Server Installation
- DHCP Scopes
- DHCP Options
- DHCP Relay Agent
- DHCP Security Options
- DHCP High Availability
- DHCP Policies
- Review All the Key Topics

Chapter 8: Implementing Windows Server 2016 IPAM

- IPAM Fundamentals
- IPAM Provisioning
- Create and Manage IP Blocks and Ranges
- Monitor Utilization of IP Address Spaces
- Configure IPAM Database Storage Using SQL Server

- IPAM and SCVMM
- Review All the Key Topics

Chapter 9: Managing DNS and DHCP Using Windows Server 2016 IPAM

- Manage DHCP Server Properties Using IPAM
- Configure DHCP Scopes and Options Using IPAM
- Configure DHCP Policies and Failover Using IPAM
- Configure DNS Server Properties Using IPAM
- Manage DNS Zones and Records Using IPAM
- Manage DNS and DHCP Servers in Multiple Active Directory Forests Using IPAM
- Using RBAC to Delegate DNS and DHCP Server Administration Using IPAM
- Review All the Key Topics

Chapter 10: Windows Server 2016 IPAM Audit Changes and Events

- Audit the Changes Performed on the DNS and DHCP Servers
- Audit the IPAM Address Usage Trail
- Audit DHCP Lease Events and User Logon Events
- Review All the Key Topics

Chapter 11: Windows Server 2016 VPN and DirectAccess Solutions

- Implementing Remote Access and S2S VPN Solutions Using RAS Gateway
- Configure Different VPN Protocol Options
- Configure Authentication Options
- Configure VPN Reconnect
- Create and Configure VPN Connection Profiles
- Scenarios for RAS VPN and S2S VPN and Appropriate Protocols
- Install and Configure DirectAccess
- Implement DirectAccess Server Requirements
- Implement DirectAccess Client Requirements
- Troubleshooting DirectAccess
- Review All the Key Topics

Chapter 12: Windows Server 2016 Network Policy Server

- Implementing RADIUS
- Registering the NPS Server in Active Directory
- Implementing RADIUS Proxy
- Implementing RADIUS Clients
- Configure NPS Templates
- Configure RADIUS Accounting
- Certificates
- Connection Request Policies
- Network Policies for VPN Wireless and Wired Clients
- Import and Export NPS Policies
- Review All the Key Topics

Chapter 13: Implementing Windows Server 2016 IPv4 and IPv6 Addressing

- Configure IPv4 Addresses and Options
- Determine and Configure Appropriate IPv6 Addresses
- Configure IPv4 and IPv6 Subnetting

- Implement IPv6 Stateless Addressing
- Configure Interoperability Between IPv4 and IPv6 by Using ISATAP, 6to4, and Teredo Scenarios
- Configure Border Gateway Protocol (BGP)
- Configure IPv4 and IPv6 Routing
- Review All the Key Topics

Chapter 14: Implementing Windows Server 2016 DFS and Branch Office Solutions

- Install and Configure DFS Namespaces
- Configure DFS Replication and DFSR Scheduling
- Configure Remote Differential Compression (RDC) Settings
- Configure Fault Tolerance
- Recover DFS Databases
- Optimize DFS Replication
- Install and Configure BranchCache
- Implement Distributed and Hosted Cache Modes
- Implement BranchCache for Web, File, and Application Servers
- Troubleshoot BranchCache

- Review All the Key Topics

Chapter 15: Implementing Windows Server 2016 High-Performance Network Solutions

- Implement NIC Teaming or the Switch Embedded Teaming (SET) Solution, and Identify When to Use Each
- Receive Side Scaling
- Quality of Service with Data Center Bridging
- SMB Direct on RDMA-Enabled Network Adapters
- SMB Multichannel
- Receive Side Scaling on a VMQ-Capable Network Adapter
- Virtual Machine Multi-Queue
- Single-Root I/O Virtualization on a Supported Network Adapter
- Software-Defined Networking
- Review All the Key Topics

Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

14

VIDEOS

44

MINUTES

12. Practice Test

uCertify provides full length practice tests. These tests closely follow the exam objectives and are designed to simulate real exam conditions. Each course has a number of test sets consisting of hundreds of items to ensure that learners are prepared for the certification exam.

Here's what you get

75

PRE-ASSESSMENTS
QUESTIONS

2

FULL LENGTH TESTS

75

POST-ASSESSMENTS
QUESTIONS

Features

Full Remediation

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Learn, Test and Review Mode

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

13. Performance Based Labs

uCertify's performance-based labs are Live Labs. Learn the real world skills using Live Labs. uCertify Labs are cloud-based, device-enabled and can be easily integrated with an LMS. Features of uCertify labs:

- Provide hands-on experience in a safe, online environment
- Labs simulate real world, hardware, software & CLI environment
- Flexible and inexpensive alternative to physical Labs
- Comes with well-organized component library for every task
- Highly interactive - learn by doing
- Explanations and remediation available
- Videos on how to perform

Lab Tasks

- Setting aging and scavenging properties
- Creating a zone delegation
- Installing AD DS with the Server Manager
- Configuring forwarders
- Configuring DNS Delegation with PowerShell
- Configuring Cache Locking
- Enabling debug logging on the DNS server
- Modifying zone transfer settings
- Creating the GlobalNames zone
- Managing a GlobalNames Zone with PowerShell
- Starting Scavenging process
- Enabling scavenging
- Enabling DHCP Name Protection at the IPv6 Node Level
- Enabling DHCP name protection at the scope level
- Installing and Configuring DirectAccess
- Creating a Zone-Level Zone Transfer Policy
- Creating a New Zone
- Signing a Zone
- Adding a DNSKEY Trust Anchor
- Installing DHCP
- Unauthorizing a DHCP Server
- Installing DHCP using PowerShell
- Configuring DHCP server post-installation
- Authorizing a DHCP Server
- Creating an IPv4 Superscope
- Creating a Reservation in the DHCP Manager
- Enabling DHCP audit logging
- Enabling DHCP name protection
- Configuring DHCP Failover
- Creating and Configuring a DHCP Policy
- Installing IPAM server
- Creating and Exporting an IPAM Access Policy
- Adding DHCP Scopes to IPAM

- Finding and allocating IP addresses in IPAM
- Filtering the view of DNS Server settings
- Adding a DNS Resource Record in the IPAM Configuration
- Filtering the view of DNS Resource Records
- Configuring Logical Groups and Custom Fields with the IPAM Console
- Joining a DirectAccess Server to a Domain
- Adding a New Static Route Entry
- Updating Clients with the DirectAccess Configuration
- Configuring a Security Group for the DirectAccess Clients
- Configuring the Windows Server 2016 DirectAccess Server
- Creating a New Connection Request Policy
- Creating a Network Policy for 802.1X
- Configuring a Network Policy for VLANs
- Configuring IPv6 with DHCPv6
- Configuring Local IPv6 Settings
- Installing and Configuring DFS Namespaces
- Configuring Windows Server 2016 DFSR with the GUI
- Configuring BranchCache Client Settings
- Enabling the BranchCache Mode through GPO
- Adding a Hyper-V host to SCVMM
- Creating the management logical network
- Creating the IP address pool in the management logical network
- Creating a management logical switch
- Applying logical switch on Hyper-V Hosts
- Importing service template into the VMM library

Here's what you get

58
PERFORMANCE BASED
LAB

52
VIDEO TUTORIALS


01:13
HOURS

14. Post-Assessment


After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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