Course Out

Install, Store, & Compute with W
740)



28 Mar 2024

Contents

1. Course Objective
2. Pre-Assessment
3. Exercises, Quizzes, Flashcards & Glossary

   Number of Questions
4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons

   Syllabus

   Chapter 1: Introduction

   Chapter 2: Installing, Upgrading, and Migrating

   Chapter 3: Installing and Configuring Nano

   Chapter 4: Working with Images

   Chapter 5: Disks and Volumes

   Chapter 6: Server Storage

   Chapter 7: Data Deduplication

   Chapter 8: Installing Hyper-V

   Chapter 9: Working with Virtual Machines

   Chapter 10: Hyper-V Storage

   Chapter 11: Hyper-V Networking

   Chapter 12: Deploying Containers

   Chapter 13: Managing Containers

   Chapter 14: High Availability in Hyper-V

   Chapter 15: Failover Clustering

Chapter 16: Managing Failover Clustering

Chapter 17: Storage Spaces Direct

Chapter 18: Managing VM Movement

Chapter 19: Network Load Balancing (NLB)

Chapter 20: Maintaining Servers

Chapter 21: Monitoring Servers

Videos and How To

9. Practice Test

   Here's what you get

   Features

10. Live labs

    Lab Tasks

    Here's what you get

11. Post-Assessment

1. Course Objective

Prepare for the MCSA 70-740 exam with MCSA 70-740 cert guide: Installation, Storage, and Compute with Win Server 2016 (70-740) course and lab. The lab provides a virtual environment for users to explore and learn. The Windows server administration course and lab cover the MCSA 70-740 exam objectives and teaches you how to install Windows Servers in host and compute environments; implement storage solutions, Hyper-V, Windows container, and high availability; and maintain and monitor server environments.

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.



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.



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.



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 70-740 Installation, Storage, and Compute with Windows Server 2016 Exam
- 70-740 Exam Topics
- About the MCSA 70-740 Cert Guide

- Objectives and Methods
- Book Features
- How This Book Is Organized

Chapter 2: Installing, Upgrading, and Migrating

- What's New in Windows Server 2016
- Installation Requirements
- Windows Server 2016 Editions
- Installing Windows Server 2016
- Performing Upgrades and Migrations
- Determining the Appropriate Activation Model
- Review All Key Topics
- Q&A

Chapter 3: Installing and Configuring Nano

- Determining Appropriate Usage Scenarios
- Requirements for Nano Server
- Installing Nano Server

- Implementing Roles and Features on Nano Server
- Managing and Configuring Nano Server
- Managing Nano Server Remotely Using Windows PowerShell
- Review All Key Topics
- Q&A

Chapter 4: Working with Images

- Planning for Windows Server Virtualization
- Networking
- The Microsoft Assessment and Planning (MAP) Toolkit
- Considerations for Deploying Workloads into Virtualized Environments
- Updating Images with Patches, Hotfixes, and Drivers
- Installing Roles and Features in Offline Images
- Managing and Maintaining Windows Server Core, Nano Server Images, and VHDs Using Windows PowerShell
- Review All Key Topics
- Q&A

Chapter 5: Disks and Volumes

- Creating Disks
- SMB and NFS Shares
- File and Folder Permissions
- Review All Key Topics
- Q&A

Chapter 6: Server Storage

- Storage Spaces
- Storage Area Networks
- Storage Replica
- Review All Key Topics
- Q&A

Chapter 7: Data Deduplication

- Usage Scenarios for Deduplication
- Implementing Deduplication
- Deduplication Monitoring
- Review All Key Topics
- Q&A

Chapter 8: Installing Hyper-V

- Preparing for Installation
- Installing Hyper-V
- Managing VMs
- Review All Key Topics
- Q&A

Chapter 9: Working with Virtual Machines

- Basic Virtual Machine Deployment
- Advanced Virtual Machine Deployment
- Review All Key Topics
- Q&A

Chapter 10: Hyper-V Storage

- Creating VHD, VHDX, and VHDS Virtual Hard Disks
- Checkpoints
- Storage Quality of Service
- Review All Key Topics

- Q&A

Chapter 11: Hyper-V Networking

- Network Interface Cards
- Virtual Switches
- Virtual Network Performance
- Review All Key Topics
- Q&A

Chapter 12: Deploying Containers

- An Overview of Containers
- Docker
- Host Installation
- Container Deployment
- Review All Key Topics
- Q&A

Chapter 13: Managing Containers

- Docker Daemon and Windows PowerShell

- Windows Container Networking
- Other Management Topics
- Review All Key Topics
- Q&A

Chapter 14: High Availability in Hyper-V

- Hyper-V Replica
- Live Migration
- Storage Migration
- Review All Key Topics
- Q&A

Chapter 15: Failover Clustering

- Implementing Failover Clustering
- Cluster Storage
- Review All Key Topics
- Q&A

Chapter 16: Managing Failover Clustering

- Role-Specific Settings and Continuously Available Shares
- More Management Settings
- Review All Key Topics
- Q&A

Chapter 17: Storage Spaces Direct

- Storage Spaces Direct
- Disaggregated and Hyper-Converged Storage Spaces Direct
- Review All Key Topics
- Q&A

Chapter 18: Managing VM Movement

- Moving VMs
- More VM Management
- Review All Key Topics
- Q&A

Chapter 19: Network Load Balancing (NLB)

- Installing and Configuring NLB

- More NLB Configurations
- Review All Key Topics
- Q&A

Chapter 20: Maintaining Servers

- Windows Server Update Services
- Windows Defender
- Backup and Restore
- Review All Key Topics
- Q&A

Chapter 21: Monitoring Servers

- Performance Monitor
- Resource Monitor
- Review All Key Topics
- Q&A

Videos and How To

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

15
VIDEOS

12. Practice Test

Here's what you get

65	2	60
PRE-ASSESSMENTS QUESTIONS	FULL LENGTH TESTS	POST-ASSESSMENTS QUESTIONS

Features

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.

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.  Live Labs

The benefits of live-labs are:

- Exam based practical tasks
- Real equipment, absolutely no simulations
- Access to the latest industry technologies
- Available anytime, anywhere on any device
- Break and Reset functionality
- No hardware costs

Lab Tasks

Installing, Upgrading, and Migrating

- Installing Windows Server Migration Tools
- Installing Windows Server 2016 using Hyper-V

Installing and Configuring Nano

- Creating the Nano Server in a Virtual Machine
- Managing the Nano Server Remotely Using Windows PowerShell

Working with Images

- Enabling Windows Features Offline on a WIM

Disks and Volumes

- Converting a basic disk into a dynamic disk
- Converting disk to GPT
- Creating and Mounting VHD Files Using Disk Management
- Running PowerShell cmdlets Related to Disk Management
- Converting Disk to GPT Using PowerShell
- Configuring SMB and NFS Shares using Server Manager
- Setting NTFS permissions

Server Storage

- Creating an iSCSI Disk
- Installing the iSNS feature
- Configuring the iSNS feature
- Installing a Multipath Input/Output (MPIO) Feature

Data Deduplication

- Installing and Enabling Data Deduplication

Installing Hyper-V

- Installing the Hyper-V Management Tools feature
- Installing Hyper-V
- Delegating Virtual Machine Management

Working with Virtual Machines

- Creating a virtual machine
- Importing a virtual machine
- Exporting a Virtual Machine
- Moving a Virtual Machine's Storage Using PowerShell

Hyper-V Storage

- Creating a differencing disk
- Creating a fixed-size virtual hard disk
- Converting a virtual hard disk
- Creating a VM with an Existing Virtual Hard Disk
- Creating checkpoints
- Changing a Checkpoint to a Standard Checkpoint Using PowerShell
- Disabling Checkpoints

Hyper-V Networking

- Changing the MAC Address for a Virtual Machine
- Adding a Virtual Network Interface Card (vNIC)

Deploying Containers

- Installing Docker

Managing Containers

- Running Docker daemon Commands

High Availability in Hyper-V

- Implementing Hyper-V Replica
- Installing the Windows Migration feature using PowerShell

Failover Clustering

- Installing failover cluster manager
- Creating a Cluster Using the Failover Cluster Wizard
- Modifying the Default Networking Configuration Using the Failover Cluster Manager
- Configuring Quorum
- Creating a Storage Pool
- Installing a Scale-Out File Server
- Creating a File Share
- Creating a Virtual Disk

Managing Failover Clustering

- Creating a Clustered Role
- Configuring monitoring for a VM
- Configuring the Node Fairness Feature

Managing VM Movement

- Configuring Drain On Shutdown Using PowerShell
- Disabling the VM Network health protection feature

Network Load Balancing (NLB)

- Installing and Configuring NLB

Maintaining Servers

- Installing the Active Directory Domain Services role
- Installing the Web Server IIS server role

Monitoring Servers

- Monitoring workloads using Performance Monitor
- Configuring a Data Collector set
- Monitoring workloads using Resource Monitor

Here's what you get

56	56
LIVE LABS	VIDEO TUTORIALS

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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