

 uCertify

# Course Outline

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**Installing and Configuring  
Windows Server 2012 R2 (Course  
& Lab)**



12 Feb 2020



Lesson



Practice test



Lab



## 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: Install Windows Server 2012 R2
  - Chapter 2: Configure Network Services
  - Chapter 3: Plan and Install Active Directory
  - Chapter 4: Configure Windows Server 2012 R2
  - Chapter 5: Administer Active Directory
  - Chapter 6: Manage GPOs
  - Chapter 7: Manage Security
  - Chapter 8: Configure TCP/IP
  - Chapter 9: Use Virtualization in Windows Server 2012
  - Chapter 10: Appendix A
- Videos and How To
9. Practice Test
  - Here's what you get
  - Features
10. Performance Based Labs

Lab Tasks

Here's what you get

11. Post-Assessment

## 1. Course Objective

Prepare for the Microsoft MCSA 70-410 exam with the Installing and Configuring Windows Server 2012 R2 70-410 course and lab. The lab provides a virtual environment for users to explore and learn. The course and lab completely cover the objectives of the 70-410 exam and include topics such as installing and configuring servers; configuring server roles and features; deploying and configuring core network services; configuring Hyper-V, creating and managing Group Policy; 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.

94  
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.

**162**  
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.

**141**  
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.

**141**  
GLOSSARY OF  
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 assignments. 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 5 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

## 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: Install Windows Server 2012 R2

- Features and Advantages of Windows Server 2012 and Server 2012 R2
- Planning the Windows Server 2012 R2 Installation
- Understanding Features On Demand
- Storage in Windows Server 2012 R2
- Summary
- Exam Essentials

### Chapter 2: Configure Network Services



- Introducing DNS
- Introducing DNS Database Zones
- Advantages of DNS in Windows Server 2012 R2
- Introducing DNS Record Types
- Configuring DNS
- Monitoring and Troubleshooting DNS
- Overview of DHCP
- Installing and Authorizing DHCP
- Creating and Managing DHCP Scopes
- Summary
- Exam Essentials

### Chapter 3: Plan and Install Active Directory

- Verifying the File system
- Verifying Network Connectivity
- Understanding Domain and Forest Functionality
- Planning the Domain Structure
- Installing Active Directory

- Verifying Active Directory Installation
- Creating and Configuring Application Data Partitions
- Configuring DNS Integration with Active Directory
- Summary
- Exam Essentials

#### Chapter 4: Configure Windows Server 2012 R2

- Understanding File Servers
- Configuring File Servers
- Configuring Disk Quotas
- Configuring Print Services
- Configuring Remote Management
- Summary
- Exam Essentials

#### Chapter 5: Administer Active Directory

- An Overview of OUs
- Planning the OU Structure
- Creating OUs

- Managing OUs
- Troubleshooting OUs
- Creating and Managing Active Directory Objects
- Publishing Active Directory Objects
- Using the Command Prompt for Active Directory Configuration
- Summary
- Exam Essentials

## Chapter 6: Manage GPOs

- Introducing Group Policy
- Planning a Group Policy Strategy
- Implementing Group Policy
- Managing Group Policy
- Deploying Software Through a GPO
- Implementing Software Deployment
- Configuring Software Deployment Settings
- Troubleshooting Group Policies
- Summary

- Exam Essentials

## Chapter 7: Manage Security

- Managing Security
- Implementing an Audit Policy
- Configuring Windows Firewall Options
- Summary
- Exam Essentials

## Chapter 8: Configure TCP/IP

- Understanding TCP/IP
- Understanding IP Addressing
- Subnetting a Network
- Understanding IPv6
- Summary
- Exam Essentials

## Chapter 9: Use Virtualization in Windows Server 2012

- Hyper-V Overview

- Hyper-V Installation and Configuration
- Configuring Virtual Machines
- Summary
- Exam Essentials

Chapter 10: Appendix 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.

47

VIDEOS

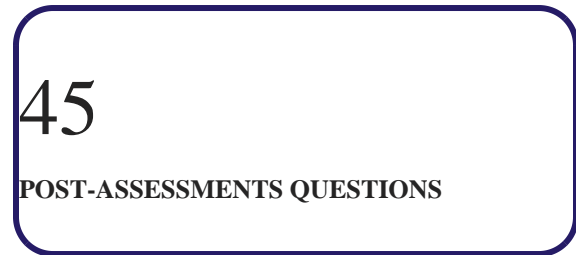
01:05

HOURS

## 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



## 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 simulators that provides virtual environment. Labs deliver hands on experience with minimal risk and thus replace expensive physical 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

- Installing Windows Server 2012
- Installing Windows Server Migration Tools
- Converting the GUI interface to the Server Core interface
- Installing the FTP server under the Web Server role
- Installing the Group Policy Management Tools feature
- Starting the Windows PowerShell utility
- Initializing disk drives
- Converting a basic disk into a dynamic disk
- Configuring an iSCSI storage connection
- Configuring the iSNS feature
- Installing a DNS server
- Setting dynamic updates
- Creating DNS resource records
- Configuring a zone for dynamic updates
- Creating DNS domains
- Performing simple DNS tests
- Installing DHCP Server
- Configuring a DHCP Server
- Unauthorizing a DHCP Server
- Authorizing a DHCP Server
- Creating a new user class
- Configuring user class options

- Viewing disk configuration
- Installing the Active Directory Domain Services role
- Installing AD DS on server core
- Monitoring the routing status
- Configuring a shared network folder for offline access
- Creating a Share with Server Manager
- Configuring offline folder options
- Defining a new quota entry
- Configuring disk quotas
- Installation of the Print and Document Services Role
- Installing a new printer
- Scheduling Printer Access
- Deploying printers using Active Directory
- Adding and removing groups from a printer's properties
- Installing an Internet Printing client
- Installing the Windows Migration feature using PowerShell
- Creating an organizational unit using Active Directory Users and Computers
- Moving an organizational unit
- Delegating custom tasks
- Deleting an OU
- Creating a group using Active Directory Administrative Center
- Creating and publishing a shared folder
- Creating computer objects
- Creating a user template
- Creating a single user
- Resetting an existing computer account
- Resetting a password
- Managing group properties
- Creating a global security group
- Managing object properties
- Nesting objects
- Delegating administration
- Managing printers
- Creating an organizational unit using Windows PowerShell
- Deleting the web browsing history



- Editing a new GPO
- Adding a group to the GPO
- Applying security policies by using Group Policy
- Creating and linking a new GPO to an OU
- Applying maximum security log size
- Applying security policy settings
- Configuring the Certificate Services Client - Auto Enrollment policy
- Creating a Starter GPO
- Creating group policy objects from Starter GPO
- Creating a GPO and linking it with the existing GPO
- Removing groups from GPOs
- Creating automatically generated executable rules
- Defining software restrictions policies
- Enabling an active desktop
- Prohibiting user access to Control Panel and PC
- Viewing auditing data
- Enabling audit logon events for success and failure
- Enabling auditing of Active Directory objects
- Creating an inbound rule
- Allowing apps through the Windows Firewall Control Panel
- Creating a DHCPv4 Scope
- Locating the DHCPv4 Scope
- Creating a DHCPv6 Scope
- Creating an IPv4 Superscope
- Creating a New Multicast Scope
- Enabling DHCP-DNS Integration
- Enabling DNS Recursive Name Server IPv6 Address List
- Installing IPAM Server
- Creating a virtual hard disk
- Installing the Hyper-V role
- Installing the Web Server IIS server role
- Editing a virtual hard disk file
- Creating a virtual switch
- Installing the Hyper-V Management Tools feature
- Creating a VM with an existing virtual hard disk

- Creating a Pass-through disk
- Creating a snapshot
- Applying a snapshot
- Configuring a dynamic memory
- Creating a virtual network

## Here's what you get

97  
PERFORMANCE BASED  
LAB

91  
VIDEO TUTORIALS

01:25  
HOURS

## 14. Live Labs

Live-Lab is a real computer equipment, networked together and conveniently accessible over the internet using virtualization. A live-lab has equipments such as a computer, server, switch or router in it that a user is free to configure.

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

### **Install Windows Server 2012 R2**

- Installing Windows Server 2012
- Installing Windows Server Migration Tools
- Converting the GUI interface to the Server Core interface
- Installing the FTP server under the Web Server role
- Installing the Group Policy Management Tools feature
- Starting the Windows PowerShell utility
- Initializing disk drives
- Converting a basic disk into a dynamic disk
- Configuring an iSCSI storage connection
- Configuring the iSNS feature

### **Configure Network Services**

- Installing a DNS server
- Setting dynamic updates
- Creating DNS resource records
- Configuring a zone for dynamic updates
- Creating DNS domains
- Performing simple DNS tests
- Installing DHCP Server
- Configuring a DHCP Server
- Unauthorizing a DHCP Server
- Authorizing a DHCP Server
- Creating a new user class
- Configuring user class options

### **Plan and Install Active Directory**

- Viewing disk configuration
- Installing the Active Directory Domain Services role
- Installing AD DS on server core

### **Configure Windows Server 2012 R2**

- Monitoring the routing status
- Configuring a shared network folder for offline access
- Creating a Share with Server Manager
- Configuring offline folder options
- Defining a new quota entry
- Configuring disk quotas
- Installation of the Print and Document Services Role
- Installing a new printer
- Scheduling Printer Access
- Deploying printers using Active Directory
- Adding and removing groups from a printer's properties
- Installing an Internet Printing client
- Installing the Windows Migration feature using PowerShell

### **Administer Active Directory**

- Creating an organizational unit using Active Directory Users and Computers
- Moving an organizational unit
- Delegating custom tasks
- Deleting an OU
- Creating a group using Active Directory Administrative Center
- Creating and publishing a shared folder
- Creating computer objects
- Creating a user template
- Creating a single user
- Resetting an existing computer account
- Resetting a password
- Managing group properties
- Creating a global security group
- Managing object properties
- Nesting objects
- Delegating administration
- Managing printers

- Creating an organizational unit using Windows PowerShell

### **Manage GPOs**

- Deleting the web browsing history
- Editing a new GPO
- Adding a group to the GPO
- Applying security policies by using Group Policy
- Creating and linking a new GPO to an OU
- Applying maximum security log size
- Applying security policy settings
- Configuring the Certificate Services Client - Auto Enrollment policy
- Creating a Starter GPO
- Creating group policy objects from Starter GPO
- Creating a GPO and linking it with the existing GPO
- Removing groups from GPOs
- Creating automatically generated executable rules
- Defining software restrictions policies

### **Manage Security**

- Enabling an active desktop
- Prohibiting user access to Control Panel and PC
- Viewing auditing data
- Enabling audit logon events for success and failure
- Enabling auditing of Active Directory objects
- Creating an inbound rule
- Allowing apps through the Windows Firewall Control Panel

### **Configure TCP/IP**

- Creating a DHCPv4 Scope
- Locating the DHCPv4 Scope
- Creating a DHCPv6 Scope
- Creating an IPv4 Superscope
- Creating a New Multicast Scope

- Enabling DHCP-DNS Integration
- Enabling DNS Recursive Name Server IPv6 Address List
- Installing IPAM Server

#### **Use Virtualization in Windows Server 2012**

- Creating a virtual hard disk
- Installing the Hyper-V role
- Installing the Web Server IIS server role
- Editing a virtual hard disk file
- Creating a virtual switch
- Installing the Hyper-V Management Tools feature
- Creating a VM with an existing virtual hard disk
- Creating a Pass-through disk
- Creating a snapshot
- Applying a snapshot
- Configuring a dynamic memory
- Creating a virtual network

#### **Appendix A**

### **Here's what you get**

**97**  
LIVE LABS

**91**  
VIDEO TUTORIALS

**01:25**  
HOURS

## **15. 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.

**Have Any Query? We Are Happy To Help!**

## GET IN TOUCH:

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■ [www.uCertify.com](http://www.uCertify.com)