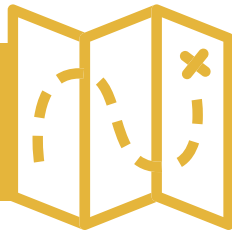


# STUDY PLAN



## Microsoft Windows Server 2012 70-410 with R2 Updates

Total Videos: **93**

Time: **17 hours\***

\*The time indicated above represents the total time to view all videos in the course, but does not include time spent using virtual labs, practice exams, embedded quizzes, etc.

## Microsoft MCSA Windows Server 2012

The [Microsoft Certified Solutions Associate \(MCSA\) Windows Server 2012](#) certification is intended to equip learners with the skills and knowledge needed to install and configure, administer, as well as design and manage advanced services in Windows Server 2012. The MCSA Windows Server 2012 certification is made up of three exams, all of which are covered by CBT Nuggets training:

- [70-410 - Installing and Configuring Windows Server 2012](#)
- [70-411 - Administering Windows Server 2012](#)
- [70-412 - Configuring Advanced Windows Server 2012 Services](#)

Typically, learners pursuing this certification path should have some familiarity with Windows Server and experience working in an enterprise environment. The MCSA is considered an intermediate certification, so learners should have 1-2 years of experience administering Microsoft products. There are no prerequisites for this MCSA certification.

## Exam Details

**Time allotted for exam:** 2 hours (120 minutes)

**Number of questions:** 40-60

**Passing score:** 700

**Question types:** Multiple choice; multiple choice/multiple answer; scenario

**Exam registration:** [Microsoft Learning](#) or [Pearson Vue](#)

**Exam cost:** \$165 (USD)

**Skills measured:** Each exam registration page on the Microsoft website provides a list of Skills Measured (free resource) to guide your study and preparation.

- [70-410](#)

## STUDY STRATEGIES

Learners use a great variety of strategies to attack their training. Here are some options you can choose from to get the most out of your training experience:

Proceed through all CBT Nuggets video training on double-speed to develop a strong overview of the material; then proceed through all the training for a second time, taking good notes and focusing on deeper learning.

**OR**

Proceed through all CBT Nuggets video training, taking good notes and focusing on deep learning on the first pass; then proceed back through all training a second time, using double-speed when appropriate.

Supplement all video training with book study and practical application of knowledge.

Develop a test environment where new skills can be practiced.

Learn more about how to get all you can out of your practice exam experience from a quick video by Keith Barker



## PRACTICE EXAM STRATEGIES

CBT Nuggets offers practice exams as part of your subscription. You can take the practice exams as many times as you like! Here are some tips to help you take full advantage of this excellent resource:

### ! PLAN TO TAKE THE PRACTICE EXAM 3 TIMES

#### FIRST EXAM

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Create a baseline against which you can measure your progress with future exams.

Identify areas of weakness in order to direct your training as you move forward.

#### SECOND EXAM

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Measure your progress since your first practice exam! Ask yourself: Are you retaining the information and material you learned at the beginning of your training? Are there areas to which you should return now to ensure your understanding before moving forward?

The results from your second practice exam experience should help you identify areas where you may need to spend extra effort and energy in the training ahead.

#### THIRD EXAM

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Measure your progress against your first two practice exams! Ask yourself: Are you scoring 90% by now? If so, you might be ready for the real thing!

Allow the results from your practice exam to direct your review ahead of your certification exam. Ask yourself: Are you retaining all the material? And are you understanding it well?

KEY

### 5. Install Server Core

▶ 5  30-45

The duration of the video in minutes.

Time required to complete a virtual lab in minutes.

The number and title for each video corresponds to the number and title you will find on the Microsoft MCSA Windows Server 2012 70-410 R2 course page online (and on your mobile device).

The Extra Mile section of your study plan challenges you to dig a little deeper with your training. The Extra Mile might be a textbook recommendation, supplemental materials downloads, or other resources to help you take your training to the next level. Nothing in the Extra Mile is required, but it is here to help you learn.



"Your virtual lab experience will vary throughout the course, depending on the exam objectives and your learning style and needs. Each virtual lab could take anywhere from 10-90 minutes."

- Garth Schulte



## Microsoft Windows Server 2012 70-410 with R2 Updates

WEEK 1

### 1. Introduction to 70-410

Installing and Configuring Windows Server 2012 R2

▶ 9

### 2. The Install and Configure Servers Section

▶ 6

### 3. Plan for a Server Installation

▶ 7

### 4. Install Windows Server

▶ 7  30-45

### 5. Install Server Core

▶ 5  30-45

### 6. Plan for a Server Upgrade

▶ 4

### 7. Plan for Server Roles

▶ 16  60

### EXTRA MILE

Explore the [Microsoft Learning website](#) to learn more about the 70-410 exam, its requirements, and available resources.

Review the [skills measured](#) by the 70-410 exam. (Consider printing out the exam objectives to help guide your future study!)

Set up your lab/test environment for practicing your new knowledge and skills.

#### PRACTICE LAB\*

This CBT Nuggets course includes virtual labs to give you hands-on experience to help ensure that you are deeply understanding what you learn.

\*Keep a list of any virtual lab experiences that you find particularly challenging so you can come back to them for additional practice later.

## 8. Migrate Roles

▶ 4

## 9. Features on Demand

▶ 14 📦 60-90

## 10. Configure Server Core

▶ 15 📦 60-90

## 11. Convert Server Core to/ from Full GUI

▶ 7 📦 45-60

## 12. Delegate Administration

▶ 7 📦 45-60

Reminder: each virtual lab experience could take up to 90 minutes to complete.

## EXTRA MILE

Create flashcards to quiz yourself on the content from your training! Or, use existing flashcard resources such as [quizlet.com](http://quizlet.com)

## PRACTICE, PRACTICE, PRACTICE!

Consider purchasing a textbook to supplement your training! Here are a few options:

- [MCSA 70-410 Cert Guide R2: Installing and Configuring Windows Server 2012](#)
- [Exam Ref 70-410 Installing and Configuring Windows Server 2012 R2 \(MCSA\)](#)
- [MCSA Windows Server 2012 R2 Complete Study Guide: Exams 70-410, 70-411, 70-412](#)

## 13. Configure NIC Teaming

▶ 9

## 14. Configure Services

▶ 9 📦 45-60

## 15. Deploy Roles on Remote Servers

▶ 11 📦 60-90

## 16. Add and Remove Features in Offline Images

▶ 15 📦 60-90

## 17. Configure PowerShell Desired State Configuration

▶ 15 📦 60-90

## EXTRA MILE

Join the [CBT Nuggets Learners Community](#) on Slack! Join other CBT Nuggets learners in a community where you can post questions, share study resources, and connect with IT experts from all over the world.

*\*Please allow 48 hours for your request to join the community to be processed.*

Spend some time reviewing some [PowerShell flashcards](#) to prepare for those components of the exam!

Explore Microsoft's TechNet [Scripting with Windows PowerShell](#) to dive deeper!

## PRACTICE LAB

Check your list of challenging virtual lab experiences and revisit one or two of them. Are you improving?

## 18. Configure MBR and GPT Disks

▶ 17 📦 60-90

## 19. Configure Basic and Dynamic Disks

▶ 8 📦 45-60

## 20. Manage Volumes

▶ 9 📦 45-60

## 21. Create and Mount VHDs

▶ 6 📦 60

## 22. Design Storage Spaces

▶ 7

## 23. Configure Storage Pools

▶ 15

## 24. Create Storage Pools by Using Disk Enclosures

▶ 4

## EXTRA MILE

Visit the [CBT Nuggets blog](#) to learn more about how to get the most out of your practice exam experience!

Read Derek Schauland's article, [What You Need to Know About Storage Spaces to Pass Exam 70-410](#) from [Pearson](#).

## PRACTICE LAB

This is a lighter week for practice labs, so take advantage of the extra time to TAKE THE PRACTICE EXAM! Use the results to drive your review and practice ahead of your certification exam\*.

- [Transcender Microsoft Cert - 70-410](#)

*\*Keep in mind that you've not completed the training yet - so you probably won't ace the exam. This is just to help you assess how well you are retaining the material you've learned so far.*

## 25. The Configure Server Roles and Features Section

▶ 4

## 26. Create and Configure Shares

▶ 13 📦 60

## 27. Configure Share Permissions

▶ 14 📦 60

## 28. Configure NTFS Permissions

▶ 10 📦 45-60

## 29. Configure Access-based Enumeration

▶ 8 📦 45-60

## 30. Configure Volume Shadow Copy Service

▶ 8

## 31. Configure NTFS Quotas

▶ 9

## 32. Configure Offline Files

▶ 9

Remember that virtual lab experience that challenged you? Take some time this week to return to it to see if you can conquer it now!

Work your flashcards until you start dreaming Server 2012 concepts, acronyms, and [PowerShell cmdlets](#)! Visit [quizlet.com](#) or continue working with your own flashcards.

Using your practice exam results from last week, identify areas where you need more review. Then, learn more about them from [Windows Server 2012 R2](#) from Microsoft TechNet.

## PRACTICE LAB

Keep working through the virtual labs! And be sure that you continue to track which labs present challenges so you can review them at a later date.

WEEK 6

33. Configure Work Folders

▶ 14 📦 60

34. Configure Enterprise Print Management

▶ 12 📦 45-60

35. Configure Drivers and the Easy Print Driver

▶ 13 📦 60

36. Configure Printer Pooling

▶ 9 📦 45-60

37. Configure Print Priorities

▶ 6 📦 60

EXTRA MILE

Take some time this week to assess your virtual lab performance. Keep your list of challenging labs going, but cross off any that you've mastered by now!

PRACTICE LAB

Continue to follow along with Garth in the virtual labs to ensure your understanding and retention!

PRACTICE, PRACTICE, PRACTICE.

Review Microsoft's TechNet [Print Management Step-by-Step Guide](#) to dig deeper.

**"A winning effort begins with preparation."**

*- Joe Gibbs*

WEEK 7

38. Configure Printer Permissions

▶ 8 📦 60

39. Configure WinRM

▶ 12 📦 60

40. Configure Down-level Server Management

▶ 11 📦 45-60

41. Configure Servers for Day-to-Day Management Tasks

▶ 11 📦 45-60

42. Configure Multi-server Management

▶ 9 📦 45-60

EXTRA MILE

PRACTICE, PRACTICE, PRACTICE

Continue making good use of the virtual lab experience!

Explore WinRM more deeply with Microsoft's TechNet library: [Configure Remote Management in Server Manager](#).

**"The price of success is hard work, dedication to the job at hand, and the determination that whether we win or lose, we have applied the best of ourselves to the task at hand."**

*- Vince Lombardi*

## 43. Configure Server Core

▶ 5 📦 30-45

## 44. Configure Windows Firewall

▶ 13 📦 60

## 45. Manage Non-domain Joined Servers

▶ 8 📦 45-60

## 46. The Configure Hyper-V Section

▶ 6

## 47. Hyper-V Fundamentals

▶ 6 📦 30-45

## 48. Create and Configure Generation 1 and 2 Virtual Machines

▶ 13 📦 60

## 49. Configure Dynamic Memory

▶ 11 📦 60

## EXTRA MILE

Revisit your flashcards to help ensure that you are retaining all that you're learning! Visit [quizlet.com](http://quizlet.com) or continue working with your own flashcards.

Hyper-V is a critical component of Windows Server 2012! Do a little digging to learn more from Microsoft's TechNet library: [Hyper-V](#).

Retake the Practice Exam! Use the results to drive your review and practice as you continue your training, practice, and learning\*!

- [Transcender Microsoft Cert - 70-410](#)

\*Let the results of your practice exam experience guide ongoing study and review!

## 50. Configure Smart Paging

▶ 6 📦 45

## 51. Configure Resource Metering

▶ 8 📦 45-60

## 52. Configure Guest Integration Services

▶ 7 📦 45-60

## 53. Configure Enhanced Session Mode and RemoteFX

▶ 7 📦 45-60

## 54. Create VHDs and VHDXs

▶ 13 📦 60-90

## EXTRA MILE

Learn more from Mark O'Shea about [Deciding On When to Use VHDX or VHD Files with Hyper-V](#).

## PRACTICE LAB

Continue to dig deeper into your learning with the virtual labs! Take time this week to revisit a lab that previously challenged you. Are you making progress?

**"With self-discipline most anything is possible."**

*- Theodore Roosevelt*



## 55. Create Differencing Drives

▶ 11 📦 45-60

## 56. Modify VHDs

▶ 10 📦 45-60

## 57. Configure Pass-through Disks

▶ 3 📦 30-45

## 58. Manage Checkpoints

▶ 10 📦 60

## 59. Implement a Virtual Fibre Channel Adapter

▶ 5 📦 30-45

## 60. Configure Storage Quality of Service

▶ 12 📦 60-90

## EXTRA MILE

Work through flashcards again, focusing on [PowerShell](#) this time, to help ensure your retention! Visit [quizlet.com](http://quizlet.com) or continue working with your own flashcards.

## PRACTICE LAB

Keep on keeping on! The virtual labs give you the opportunity to gain invaluable hands-on experience and that experience is often the difference between passing and failing a certification exam!

**"Success is not final, failure is not fatal; it is the courage to continue that counts."**

*- Winston Churchill*

## 61. Configure Hyper-V Virtual Switches

▶ 8 📦 45-60

## 62. Optimize Network Performance

▶ 7 📦 45

## 63. Configure MAC Addresses

▶ 7 📦 45

## 64. Configure Network Isolation

▶ 6 📦 30-45

## 65. Configure Synthetic and Legacy Virtual Network Adapters

▶ 7 📦 45

## 66. Configure NIC Teaming in Virtual Machines

▶ 6 📦 30-45

## EXTRA MILE

Conquer the Hyper-V virtual switch by reading Kathy Davies' [Create a virtual switch for Hyper-V virtual machines](#) on Microsoft's TechNet.

## PRACTICE LAB

When you encounter obstacles in the virtual labs, take the time you need to work through the issues, soaking up all the information and experience you can!

**"Success is to be measured not so much by the position that one has reached in life as by the obstacles which he has overcome."**

*- Booker T. Washington*

### 67. The Deploy and Configure Core Network Services Section

▶ 3

### 68. IP Fundamentals

▶ 15

### 69. Configure IP Address Options

▶ 14  60

### 70. Configure Interoperability between IPv4 and IPv6

▶ 13  60-90

### 71. DHCP Fundamentals

▶ 12  60

### 72. Authorize DHCP Server

▶ 4  30-45

#### EXTRA MILE

##### OPTIONAL SUPPLEMENTAL TRAINING:

- [IPv6 course with Keith Barker](#)  
Consider watching this 21-hour course, or choosing appropriate videos from the course, to help solidify your understanding of IPv6.
- [IPv4 Subnetting: The Ultimate Guide with Keith Barker](#)  
Consider watching this 4-hour course, or choosing appropriate videos from the course, to help solidify your understanding of IPv4.

[Schedule your certification exam](#) with an approved testing site.

### 73. Create and Configure Scopes

▶ 10  45-60

### 74. Configure DHCP Options

▶ 8  45-60

### 75. Configure a DHCP Reservation

▶ 6  30-45

### 76. Configure Client and Server for PXE Boot

▶ 9  45-60

#### EXTRA MILE

Get back to your flashcards this week! Make sure all that you're learning is sticking.

Choose a couple of virtual lab experiences from weeks 2-8 to test your ability to recall the steps to effectively complete tasks!

Retake the Practice Exam!! Use the results to drive your review and practice as you continue training\*.

- [Transcender Microsoft Cert - 70-410](#)

\*Let the results of your final practice exam experience guide your review!

## 77. Configure DHCP Relay Agent

▶ 17 📦 60-90

## 78. DNS Fundamentals

▶ 12 📦 60

## 79. Configure Active Directory Integration of Primary Zones

▶ 16 📦 60-90

## 80. Configure Forwarders and Root Hints

▶ 8 📦 45

## 81. Create A and PTR Resource Records

▶ 10 📦 60

## EXTRA MILE

Active Directory is an essential component of your preparation for the 70-410 exam. Dig deeper into [Active Directory](#) with Microsoft's TechNet.

## PRACTICE LAB

Take some time to play in the virtual labs this week. Explore, poke around, and try to break some things! That gives you the opportunity to then fix things too!

Review [Microsoft's Exam Policies and FAQs](#) to fully understand the testing conditions you'll face on the big day!

## 82. Manage DNS Cache

▶ 9 📦 45-60

## 83. The Install and Administer Active Directory Section

▶ 6

## 84. Active Directory Fundamentals

▶ 16 📦 60-90

## 85. Install Domain Controllers

▶ 20 📦 60-90

## 86. Create and Manage Active Directory Users and Computers

▶ 30 📦 90

## EXTRA MILE

Understand the value of the various skills measured by the 70-410 exam:

- Install and configure servers = 15-20%
- Configure server roles and features = 15-20%
- Configure Hyper-V = 15-20%
- Deploy and configure core network services = 15-20%
- Install and administer Active Directory = 15-20%
- Create and manage Group Policy = 15-20%

## PRACTICE LAB

You're on the home stretch now! Keep practicing to make sure you're ready on the big day!

Consider purchasing the [Microsoft Exam Replay](#) voucher to help ensure your success on the 70-410 certification exam!

### 87. Create and Manage Active Directory Groups and OUs

▶ 26 📦 90

### 88. The Create and Manage Group Policy Section

▶ 4

### 89. Create Group Policy Objects

▶ 20 📦 90

### 90. Configure Security Policies

▶ 23 📦 90

#### EXTRA MILE

Revisit the [skills measured](#) by the 70-410 exam. Be sure you're well prepared to address each topic and skill listed!

Dig a little deeper into [Group Policy](#) from Microsoft's TechNet.

#### PRACTICE LAB

This week lighter week of labbing. Take advantage of the smaller time commitment in labs to retake the PRACTICE EXAM! Use the results to drive your ongoing study and review ahead of your certification exam.\*

- [Transcender Microsoft Cert - 70-410](#)

\*Let the results of your practice exam guide your review!

### 91. Configure Application Restriction Policies

▶ 20 📦 90

### 92. Configure Windows Firewall

▶ 16 📦 60-90

### 93. Good Luck!

▶ 3

### Cram Sessions

Review training nuggets where you might need to brush up. (1-3 hours)

#### EXTRA MILE

Learn what to expect on your exam:

- You need to earn 700 out of a possible 1,000 points to pass the exam
- You will have a maximum of 120 minutes to complete your exam

Understand Microsoft's evolving certification structure by reading up on [What to Expect from the New Microsoft Certification Paths](#).

#### PRACTICE LAB

As you complete the course and the virtual labs, take some time to revisit any labs where you may have struggled to work through the obstacles.

Retake the Practice Exam - one last time! Use the results to drive your review and practice ahead of your certification exam\*.

- [Transcender Microsoft Cert - 70-410](#)

\*You should score around 90% or better on your practice exam to be prepared to pass your certification exam.

## CRAM SESSIONS

\*Review training Nuggets where you might need to brush up! (3-5 hours)

## THE BIG DAY

Take the exam.

Get a good night's sleep  
ahead of your exam!



**Brag about it! Tweet us or let us know  
how your exam went and what you're  
doing to celebrate your success!**

The MCSA Windows Server 2012 puts you on the path to a career in system administration, but also opens up other pathways as well, including networking, virtualization, security, cloud computing, system administration, and more. Consider these pathways as you move beyond your MCSA:

ENTRY LEVEL			INTERMEDIATE				ADVANCED
<b>NETWORKING</b>							
CompTIA Network+	CCNA Routing and Switching	Juniper JNCIA-Junos	CCNP Routing and Switching	Juniper JNCIS-ENT	Palo Alto Networks Firewall	Cisco CCIE Routing and Switching	
<b>SECURITY</b>							
CompTIA Security+	CCNA Security		CCNP Security	EC-Council Certified Ethical Hacker	Penetration Testing with Linux Tools	(ISC) <sup>2</sup> CISSP 2015	
<b>VIRTUALIZATION</b>							
Cisco CCNA Data Center	VMware VCA-DCV		Cisco CCNP Data Center	Cisco Data Center Unified Fabric Support Specialist	MCSE Cloud Platform and Infrastructure	VMware VCP6.5-DCV	
<b>CLOUD COMPUTING</b>							
AWS: Technical Essentials	AWS: Certified Solutions Architect-Associate		MCSE Cloud Platform and Infrastructure	AWS: Certified SysOps Admin Associate			
<b>SYSTEM ADMINISTRATION</b>							
PowerShell 4 Foundations (no associated certification)	MCSA: Office 365		MCSE Cloud Platform and Infrastructure				

## CAREER PATHWAYS

CBT Nuggets is committed to providing you with the resources necessary to plan your training, certification, and career pathway effectively and efficiently. Review our Career Pathway blog posts to learn more.

[Mapping Your IT Networking Career Pathway](#)

[Unlocking Your IT Security Career Pathway](#)

[Decoding Your IT SysAdmin Career Pathway](#)

[Charting Your IT Cloud and Virtualization Career Pathway](#)

[Engineering Your IT DevOps Career Pathway](#)

## Roadmap to Success: MCSA Windows Server 2012

Learn more about the MCSA certification from the CBT Nuggets blog. The [Roadmap to Success: MCSA Server 2012](#) is part of a [series of blog posts](#) designed to help learners better understand certification pathways, career opportunities associated with those certifications, and next steps beyond certification.

## THE NEXT STEP

The MCSA is a building block to allow learners to earn a variety of other certifications from Microsoft. After earning the MCSA Windows Server 2012 certification, most learners take the next step by earning an MCSE (Microsoft Certified Solutions Expert) certification. The MCSE allows learners to select from a variety of elective exams, effectively customizing the certification to meet their unique needs. The expert-level certification aligned with the MCSA Windows Server 2012 is the MCSE: Cloud Platform and Infrastructure certification. To earn the MCSE, learners must choose one elective exam from a pool of exam options:

- [70-532](#)
- [70-533](#)
- [70-534](#)
- [70-473](#)
- [70-475](#)
- [70-744](#)
- [70-413](#)
- [70-414](#)
- [70-246](#)
- [70-247](#)

Some learners may choose to diversify their certification resumes by pursuing certifications outside the Microsoft universe. Those who choose this path often consider the following certifications:

- [CCNA Routing and Switching](#) (made up of two exams: [ICND1](#) and [ICND2](#))
- [AWS CSA – Associate](#) (made up of one exam: [AWS Certified Solutions Architect – Associate](#))
- [VMware vSphere 6.5](#) (made up of one exam: [VCP6.5-DCV](#))