uCertify

Course Outline

CCNP Routing and Switching SWITCH 300-115

03 May 2024

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

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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: CCNP Routing and Switching SWITCH 300-115 Official Cert Guide

   Chapter 2: Introduction

   Chapter 3: Enterprise Campus Network Design

   Chapter 4: Switch Operation

   Chapter 5: Switch Port Configuration

   Chapter 6: VLANs and Trunks

   Chapter 7: VLAN Trunking Protocol

   Chapter 8: Traditional Spanning Tree Protocol

   Chapter 9: Spanning-Tree Configuration

   Chapter 10: Protecting the Spanning Tree Protocol Topology

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   Chapter 12: Aggregating Switch Links

   Chapter 13: Multilayer Switching

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   Chapter 16: Managing Switches with SNMP

   Chapter 17: Monitoring Performance with IP SLA

   Chapter 18: Using Port Mirroring to Monitor Traffic

Chapter 19: Understanding High Availability

Chapter 20: Layer 3 High Availability

Chapter 21: Securing Switch Access

Chapter 22: Securing VLANs

Chapter 23: Preventing Spoofing Attacks

Chapter 24: Managing Switch Users

Chapter 25: Appendix: Glossary

Videos and How To

9. Practice Test

   Here's what you get

   Features

10. Post-Assessment

1. Course Objective

Gain hands-on expertise to pass the Cisco CCNP SWITCH 300-115 exam with Cisco Routing and Switching SWITCH 300-115 course. Interactive chapters comprehensively cover Cisco CCNP 300-115 exam objectives and provide knowledge in areas such as Layer 2 Technologies; Infrastructure Security; Infrastructure Services, and more. The course provides hands-on skills on the areas configuring and verifying switch administration, Layer 2 protocols, VLANs, trunking with its resources.

2. Pre-Assessment

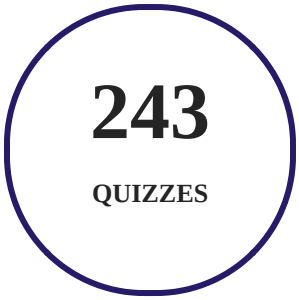
Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

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.

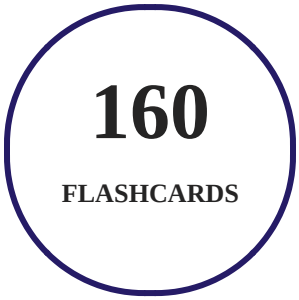
4. Quizzes

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: CCNP Routing and Switching SWITCH 300-115 Official Cert Guide

Chapter 2: Introduction

- The CCNP SWITCH Exam

- CCNP SWITCH 300-115 Official Certification Guide

Chapter 3: Enterprise Campus Network Design

- Hierarchical Network Design
- Modular Network Design
- Exam Preparation Tasks

Chapter 4: Switch Operation

- Layer 2 Switch Operation
- Multilayer Switch Operation
- Tables Used in Switching
- Managing Switching Tables
- Exam Preparation Tasks

Chapter 5: Switch Port Configuration

- Ethernet Concepts
- Connecting Switches and Devices
- Switch Port Configuration
- Discovering Connected Devices

- Using Power over Ethernet
- Exam Preparation Tasks

Chapter 6: VLANs and Trunks

- Virtual LANs
- VLAN Trunks
- VLAN Trunk Configuration
- Troubleshooting VLANs and Trunks
- Voice VLANs
- Exam Preparation Tasks

Chapter 7: VLAN Trunking Protocol

- VLAN Trunking Protocol
- VTP Configuration
- VTP Pruning
- Troubleshooting VTP
- Exam Preparation Tasks

Chapter 8: Traditional Spanning Tree Protocol

- IEEE 802.1D Overview
- Types of STP
- Exam Preparation Tasks

Chapter 9: Spanning-Tree Configuration

- STP Root Bridge
- Spanning-Tree Customization
- Tuning Spanning-Tree Convergence
- Redundant Link Convergence
- Exam Preparation Tasks

Chapter 10: Protecting the Spanning Tree Protocol Topology

- Protecting Against Unexpected BPDUs
- Protecting Against Sudden Loss of BPDUs
- Using BPDU Filtering to Disable STP on a Port
- Exam Preparation Tasks

Chapter 11: Advanced Spanning Tree Protocol

- Rapid Spanning Tree Protocol

- Multiple Spanning Tree Protocol
- Exam Preparation Tasks

Chapter 12: Aggregating Switch Links

- Switch Port Aggregation with EtherChannel
- EtherChannel Negotiation Protocols
- EtherChannel Configuration
- Exam Preparation Tasks

Chapter 13: Multilayer Switching

- Inter-VLAN Routing
- Verifying Multilayer Switching
- Exam Preparation Tasks

Chapter 14: Configuring DHCP

- Using DHCP with a Multilayer Switch
- Configuring DHCP to Support IPv6
- Exam Preparation Tasks

Chapter 15: Logging Switch Activity

- Logging System
- Syslog Messages
- Adding Time Stamps to Syslog Messages
- Exam Preparation Tasks

Chapter 16: Managing Switches with SNMP

- SNMP Overview
- Configuring SNMP
- Exam Preparation Tasks

Chapter 17: Monitoring Performance with IP SLA

- IP SLA Overview
- Configuring IP SLA
- Using IP SLA
- Exam Preparation Tasks

Chapter 18: Using Port Mirroring to Monitor Traffic

- Switched Port Analyzer (SPAN)
- Using Local SPAN

- Remote SPAN
- Exam Preparation Tasks

Chapter 19: Understanding High Availability

- Leveraging Logical Switches
- Supervisor and Route Processor Redundancy
- Exam Preparation Tasks

Chapter 20: Layer 3 High Availability

- Router Redundancy
- Packet-Forwarding Review
- Hot Standby Router Protocol
- Virtual Router Redundancy Protocol
- Gateway Load Balancing Protocol
- Exam Preparation Tasks

Chapter 21: Securing Switch Access

- Port Security
- Port-Based Authentication

- Using Storm Control
- Best Practices for Securing Switches
- Exam Preparation Tasks

Chapter 22: Securing VLANs

- VLAN Access Lists
- Private VLANs
- Securing VLAN Trunks
- Exam Preparation Tasks

Chapter 23: Preventing Spoofing Attacks

- Exam Preparation Tasks

Chapter 24: Managing Switch Users

- Authentication, Authorization, and Accounting (AAA)
- Configuring Authentication
- Configuring Authorization
- Exam Preparation Tasks

Videos and How To

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

20	05:15
VIDEOS	HOURS

12. Practice Test

Here's what you get

88	2	95
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. 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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