# uCertify Course Outline

CCENT ICND1 100-105 Pearson uCertify Network Simulator



18 Apr 2024

- 1. Course Objective
- 2. Expert Instructor-Led Training
- 3. ADA Compliant & JAWS Compatible Platform
- 4. State of the Art Educator Tools
- 5. Award Winning Learning Platform (LMS)
- 6. Live labs

Lab Tasks

Here's what you get

# 1. Course Objective

Gain hands-on expertise in Interconnecting Cisco Networking Devices Part 1 ICND1: 100-105 exam with CCENT ICND1 100-105 Pearson uCertify Network Simulator V4.0. The ICND1 Simulator V4.0 is a real computer equipment, networked together and conveniently accessible over the internet using virtualization. It has equipment such as a computer, server, switch or router in it that a user is free to configure. It covers all the objectives of the ICND1 exam which include network fundamentals, LAN Switching fundamentals, routing fundamentals, infrastructure services, infrastructure maintenance.

# 2. 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.

# 3. ( 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.

# 4. The 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.

# 5. 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



#### 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

#### **Chapter 6: Using the Command Line Interface**

- Switch CLI Configuration Process I
- Switch CLI Configuration Process II
- Switch CLI Exec Mode
- Configuring Local Usernames
- Configuring Hostnames
- Testing Using Pings with Hostnames
- Using the debug Command on a Router
- Comparing Configuration Files

#### **Chapter 7: Analyzing Ethernet LAN Switching**

- Interface Status I
- Interface Status II
- Interface Status III
- Interface Status IV
- Switch Forwarding I
- Switch Interfaces and Forwarding

#### **Chapter 8: Configuring Basic Switch Management**

- Configuring IP Addresses I
- Setting Switch Passwords
- Terminal History I
- Terminal History II
- Configuring Switch IP Settings
- Switch IP Address
- Switch IP Connectivity I
- Switch IP Connectivity
- SSH and Telnet

## **Chapter 9: Configuring Switch Interfaces**

- Interface Settings I
- Interface Settings II
- Interface Settings III
- Switch Security I
- Switch Security II
- Switch Security III
- Switch Security IV
- Switch Security
- Port Security

## **Chapter 11: Implementing Ethernet Virtual LANs**

- VLANs I
- VLANs II
- VLANs III
- VLAN Configuration I
- VLAN Configuration II
- VLAN Configuration III
- VLAN Configuration IV
- Trunking Configuration I
- Trunking Configuration II
- Trunking Configuration III
- Trunking Configuration IV
- Configuring VLANs
- VLAN Trunking I
- VLAN Trunking II

#### **Chapter 12: Troubleshooting Ethernet LANs**

- Topology Analysis
- Path Analysis I
- Switch Forwarding Troubleshooting
- VLAN Troubleshooting

#### **Chapter 16: Analysing Existing Subnets**

- Subnet ID Calculation I
- Subnet ID Calculation II
- Subnet ID Calculation III
- Subnet ID Calculation IV
- Subnet ID Calculation V
- Subnet ID Calculation VI
- Subnet ID Calculation VII
- Subnet ID Calculation VIII
- Subnet ID Calculation IX
- Subnet ID Calculation X
- Subnet ID Calculation XI
- IP Address Rejection I
- IP Address Rejection II
- IP Address Rejection III
- IP Address Rejection IV
- IP Address Rejection V
- IP Address Rejection VI
- IP Address Rejection VII
- IP Address Rejection VIII
- IP Address Rejection IX
- IP Address Rejection X
- IP Address Rejection XI

#### **Chapter 17: Operating Cisco Routers**

- Loopback Interfaces
- Router CLI Exec Mode I
- Router CLI Exec Mode II
- Router CLI Configuration Process
- Configuring SSH
- Setting Router Passwords
- Interface Status V
- Interface Status VI
- IP Addressing and Configuration I

- IP Addressing and Configuration II
- New Job I
- Rebuild a Configuration

#### **Chapter 18: Configuring IPv4 Addresses and Static Routes**

- Configuring Router IP Settings
- Configuring IP Addresses II
- Configuring IP Addresses III
- Configuring IP Addresses IV
- IP Addressing I
- IP Addressing II
- IP Addressing III
- Connected Routes
- Static Routes I
- Static Routes II
- Static Routes III
- Static Routes IV
- Default Route I
- Default Route II
- Router on a Stick Configuration I
- Router on a Stick Configuration II
- Router on a Stick Verification I
- Router on a Stick Verification II
- VLAN Configuration V
- IP and MAC Address Comparisons
- Static Routing I
- Static Routing II
- Configuring Default Routes

# **Chapter 19: Learning IPv4 Routes with RIPv2**

- RIPv2 Configuration I
- RIPv2 Configuration II
- RIPv2 Configuration III
- RIPv2 Configuration IV
- RIPv2 Configuration V

- RIPv2 Configuration VI
- RIPv2 Verification I
- RIPv2 Verification II
- IP Route Selection I
- IP Route Selection II
- IP Route Selection III
- IP Route Selection IV
- IP Route Selection V
- IP Route Selection VI
- IP Route Selection VII
- IP Route Selection VIII
- IP Route Selection IX
- IP Route Selection X
- IP VLSM Route Selection I
- IP VLSM Route Selection II
- IP VLSM Route Selection III
- IP VLSM Route Selection IV
- IP VLSM Route Selection V
- IP VLSM Route Selection VI
- IP VLSM Route Selection VII
- Configuring RIPv2 I
- Configuring RIPv2 II

# Chapter 20: DHCP and IP Networking on Hosts

- Traceroute I
- Traceroute II
- PC IP Commands I
- PC IP Commands II
- PC IP Commands III
- DHCP Server Configuration I
- DHCP Server Configuration II
- DHCP Server Configuration III
- DHCP Server Configuration IV
- DHCP Server Configuration V
- Complete DHCP Server Configuration

- Path Analysis II
- IP Addressing and Routing
- DHCP Server Troubleshooting

#### **Chapter 21: Subnet Design**

- Subnet Zero I
- Subnet Zero II
- Zero Subnet
- Subnetting and Addressing I
- Subnetting and Addressing II
- Subnetting and Addressing III
- IPv4 Addressing Troubleshooting

# **Chapter 22: Variable-Length Subnet Masks**

- VLSM Overlap I
- VLSM Overlap II
- VLSM Overlap III
- VLSM Overlap IV
- VLSM Overlap V
- VLSM Overlap VI
- VLSM Overlap VII
- VLSM Overlap VIII
- VLSM Overlap IX
- VLSM Overlap X
- VLSM Overlap XI

### **Chapter 23: IPv4 Troubleshooting Tools**

- Ping
- Using and Suspending Telnet Connections
- Traceroute III

# **Chapter 25: Basic IPv4 Access Control Lists**

• Standard ACL

## **Chapter 26: Advanced IPv4 Access Control Lists**

- ACL I
- ACL II
- ACL III
- ACL IV
- ACL V
- ACL VI
- ACL Analysis I
- Named ACL I
- Named ACL II
- Named ACL III
- Extended ACL I
- Extended ACL II

### **Chapter 27: Network Address Translation**

- NAT Configuration I
- NAT Configuration II
- NAT Configuration III
- NAT Configuration IV
- NAT Configuration V
- NAT Configuration VI
- NAT Configuration VII
- Configuring NAT I
- Configuring NAT II
- Configuring NAT III
- NAT Troubleshooting

#### Chapter 29: IPv6 Addressing and Subnetting

- IPv6 Subnet ID Calculation I
- IPv6 Subnet ID Calculation II
- IPv6 Subnet ID Calculation III
- IPv6 Subnet ID Calculation IV
- IPv6 Subnet ID Calculation V

- IPv6 Subnet ID Calculation VI
- IPv6 Subnet ID Calculation VII
- IPv6 Subnet ID Calculation VIII
- IPv6 Subnet ID Calculation IX
- IPv6 Subnet ID Calculation X
- IPv6 Route Selection I
- IPv6 Route Selection II
- IPv6 Route Selection III
- IPv6 Route Selection IV
- IPv6 Route Selection V
- IPv6 Route Selection VI
- IPv6 Route Selection VII
- IPv6 Route Selection VIII
- IPv6 Route Selection IX
- IPv6 Route Selection X

## Chapter 30: Implementing IPv6 Addressing on Routers

- Configuring IPv6 Addresses I
- Configuring IPv6 Addresses II
- Configuring IPv6 Addresses III
- IPv6 Address Configuration I
- IPv6 Address Configuration II
- IPv6 Address Configuration III
- IPv6 Address Configuration IV
- IPv6 EUI-64 Calculation Drills I
- IPv6 EUI-64 Calculation Drills II
- IPv6 EUI-64 Calculation Drills III
- IPv6 EUI-64 Calculation Drills IV
- IPv6 EUI-64 Calculation Drills V
- IPv6 EUI-64 Calculation Drills VI
- IPv6 EUI-64 Calculation Drills VII
- IPv6 EUI-64 Calculation Drills VIII
- IPv6 EUI-64 Calculation Drills IX
- IPv6 EUI-64 Calculation Drills X
- IPv6 Configuration I

- IPv6 Configuration II
- IPv6 Addressing Troubleshooting

### **Chapter 33: Device Management Protocols**

- Terminal Monitor
- CDP I
- CDP II
- LLDP I
- LLDP II
- Syslog Configuration I
- Syslog Configuration II
- Syslog Configuration III
- NTP Configuration I
- NTP Configuration II
- NTP Configuration III
- Network Discovery I
- Network Discovery II

#### **Chapter 35: Managing IOS Files**

- Booting a New Router IOS
- Setting the Configuration Register
- Ignoring the Startup-config File
- Migrating to a New IOS Image
- IOS Verification
- Password Recovery

# **Chapter 36: IOS Licensing**

- IOS License Installation
- IOS License Removal
- IOS License Verification
- IOS License Installation and Migration

# **Navigation and Administration**

- Basic Commands and the Command Line
- Syslog: Assessment
- Password Recovery: Assessment
- CDP/LLDP Configuration and Discovery: Assessment
- NTP Configuration: Assessment
- RIPv2 Configuration: Assessment

#### **IP Addressing**

- Subnet Challenge
- IPv6 Address Configuration
- NAT/PAT Configuration
- DHCP Server Configuration
- ICND1 IP Addressing Final Exam

#### **Switching**

- Switch Configuration
- Basic Switch Configuration and the Command Line Interface
- Static VLAN Configuration and Trunking
- Trunking Configuration
- Switch Port Security
- ICND1 Switching Final Exam

#### **Routing and WANs**

- Basic Router Configuration and the Command Line Interface
- Configuring Static routes
- Access Lists
- Router On a Stick
- ICND1 Security Final Exam
- ICND1 Routing Final Exam

#### **Subnetting**

- IP Addressing and Subnetting
- Route Selection

- VLSM Overlap
- IPv6 EUI-64 Calculation
- VLSM Route Selection: Assessment

# **Troubleshooting**

- Troubleshooting I
- Troubleshooting II
- IPv6 Address Troubleshooting: Assessment

# Here's what you get

LIVE LABS

# **GET IN TOUCH:**







