

# uCertify

## Course Outline

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**CCNA 200-301 Pearson  
uCertify Network Simulator**



Live-Lab

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## 1. Course Objective

Gain hands-on experience to pass the Cisco CCNA 200-301 certification exam with the CCNA 200-301 Pearson uCertify Network Simulator course. The lab is versatile and delivers hands-on experience, replacing expensive physical labs. The CCNA course covers the CCNA 200-301 exam objectives and teaches you how to work with network fundamentals, network access, IP connectivity, IP services, security fundamentals, and automation and programmability.

## 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. 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

## 6. 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

### Foundational Networking Technologies

- New Job I
- Subnetting and Addressing I
- Subnetting and Addressing II
- Subnetting and Addressing III
- IP Addressing and Configuration I
- IP Addressing and Configuration II
- Rebuild a Configuration
- SSH and Telnet
- Router CLI Exec Mode I
- Router CLI Exec Mode II
- Router CLI Configuration Process
- Interface Status V
- Interface Status VI
- Loopback Interfaces
- Configuring SSH
- Setting Router Passwords
- IPv4 Addressing Troubleshooting

- Path Analysis IV

### **IPV4 Addressing**

- IP and MAC Address Comparisons
- Configuring Router IP Settings
- IP Address Configuration II
- IP Address Configuration III
- IP Address Configuration IV
- IP Address Configuration V
- IP Address Configuration VI
- IP Address Configuration VII
- Connected Routes
- Subnet Zero I
- Subnet Zero II
- Subnet Zero III
- Subnet ID Calculation I
- Subnet ID Calculation II
- Subnet ID Calculation III
- Subnet ID Calculation IV
- Subnet ID Calculation IX
- Subnet ID Calculation V
- Subnet ID Calculation VI
- Subnet ID Calculation VII
- Subnet ID Calculation VIII
- 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 IX
- IP Address Rejection V
- IP Address Rejection VI
- IP Address Rejection VII

- IP Address Rejection VIII
- IP Address Rejection X
- IP Address Rejection XI
- IP Route Selection I
- IP Route Selection II
- IP Route Selection III
- IP Route Selection IV
- IP Route Selection IX
- IP Route Selection V
- IP Route Selection VI
- IP Route Selection VII
- IP Route Selection VIII
- 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
- 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

### **IPv6 Addressing**

- IPv6 Configuration I



- IPv6 Configuration II
- IPv6 Address Configuration I
- IPv6 Address Configuration II
- IPv6 Address Configuration III
- IPv6 Address Configuration IV
- IPv6 Address Configuration V
- IPv6 Address Configuration VI
- IPv6 Address Configuration VII
- IPv6 Address Configuration VIII
- IPv6 Address Configuration IX
- IPv6 Subnet ID Calculation I
- IPv6 Subnet ID Calculation II
- IPv6 Subnet ID Calculation III
- IPv6 Subnet ID Calculation IV
- IPv6 Subnet ID Calculation IX
- IPv6 Subnet ID Calculation V
- IPv6 Subnet ID Calculation VI
- IPv6 Subnet ID Calculation VII
- IPv6 Subnet ID Calculation VIII
- IPv6 Subnet ID Calculation X
- IPv6 Route Selection I
- IPv6 Route Selection II
- IPv6 Route Selection III
- IPv6 Route Selection IV
- IPv6 Route Selection IX
- IPv6 Route Selection V
- IPv6 Route Selection VI
- IPv6 Route Selection VII
- IPv6 Route Selection VIII
- IPv6 Route Selection X
- 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 Addressing Troubleshooting
- IPv6 Routing

### **Ethernet Switching**

- Switch Interfaces and Forwarding
- Switch IP Connectivity
- Switch CLI Exec Mode
- Switch CLI Configuration Process I
- Switch CLI Configuration Process II
- Testing Using Pings with Hostnames
- Comparing Configuration Files
- Configuring Hostnames
- Interface Status I
- Interface Status II
- Interface Status III
- Interface Status IV
- Switch Forwarding I
- Configuring Local Usernames
- Terminal History I
- Terminal History II
- Switch IP Address
- Switch IP Connectivity I
- Configuring Switch IP Settings
- IP Address Configuration I
- Setting Switch Passwords
- Interface Settings I
- Interface Settings II
- Interface Settings III

- Cisco Discovery Protocol (CDP) Configuration I
- Cisco Discovery Protocol (CDP) Configuration II
- Link Layer Discovery Protocol (LLDP) Configuration I
- Link Layer Discovery Protocol (LLDP) Configuration II
- Network Discovery I
- Network Discovery II
- Configuring VLANs
- VLAN Configuration I
- VLAN Configuration II
- VLAN Configuration III
- VLAN Configuration IV
- VLAN Configuration V
- VLAN Configuration VI
- VLAN Configuration VII
- Topology Analysis
- Switch Forwarding Troubleshooting
- Path Analysis I
- VLAN Troubleshooting
- Path Analysis II
- Router-on-a-Stick to MLS I
- Router-on-a-Stick to MLS II
- VLAN Trunking I
- VLAN Trunking II
- Router-on-a-Stick Configuration I
- Router-on-a-Stick Configuration II
- Router-on-a-Stick Configuration III
- Router-on-a-Stick Verification I
- Router-on-a-Stick Verification II
- MLS Configuration I
- MLS Configuration II
- MLS Configuration III
- MLS IPv6 Configuration I
- MLS IPv6 Configuration II
- Trunking Configuration I

- Trunking Configuration II
- Trunking Configuration III
- Trunking Configuration IV
- Switch Security I
- STP Analysis
- STP Configuration
- STP Prediction Drills I
- STP Prediction Drills II
- STP Prediction Drills III
- STP Prediction Drills IV
- PortFast Configuration I
- PortFast Configuration II
- BPDU Guard Configuration I
- BPDU Guard Configuration II
- STP Configuration I
- STP Configuration II
- Path Analysis III
- STP Troubleshooting
- Path Troubleshooting I
- Static EtherChannel
- Dynamic EtherChannel I
- Dynamic EtherChannel II

### **Routing**

- Using and Suspending Telnet Connections
- Ping
- Traceroute I
- Traceroute II
- Traceroute III
- PC IP Commands I
- PC IP Commands II
- PC IP Commands III
- Static Routing I
- Static Routing II

- Configuring Default Routes
- Static Routes I
- Static Routes II
- Static Routes III
- Static Routes IV
- Default Route I
- Default Route II
- OSPF Configuration I
- OSPF Configuration II
- OSPF Configuration III
- OSPF Metric Manipulation
- Interpreting the show ip route output
- OSPF Router ID I
- OSPF Router ID II
- OSPF Metric Tuning I
- OSPF Metric Tuning II
- OSPF Metric Tuning III
- OSPF Neighbors I
- OSPF Neighbors II
- OSPF Neighbors III
- OSPF Neighbors IV
- OSPF Neighbors V
- OSPF Interface Configuration I
- OSPF Interface Configuration II
- IP Addressing and Routing
- Path Troubleshooting II
- IP Routing
- OSPF Troubleshooting I

### **Wireless Networks**

- Configuring a Wireless LAN Controller (WLC) I
- Configuring a Wireless LAN Controller (WLC) II
- Logging into a Wireless LAN Controller (WLC)
- Wireless LAN Controller (WLC) RADIUS server configuration I

- Wireless LAN Controller (WLC) RADIUS server configuration II
- Wireless LAN Controller (WLC) dynamic interface configuration I
- Wireless LAN Controller (WLC) dynamic interface configuration II
- Wireless LAN Controller (WLC) WLAN configuration I
- Wireless LAN Controller (WLC) WLAN configuration II
- Wireless LAN Controller (WLC) WLAN security configuration I
- Wireless LAN Controller (WLC) WLAN security configuration II
- Monitoring a Wireless LAN Controller (WLC) I
- Monitoring a Wireless LAN Controller (WLC) II

### Network Services

- Configuring NAT I
- Configuring NAT II
- Configuring NAT III
- NAT Configuration I
- NAT Configuration II
- NAT Configuration III
- NAT Configuration IV
- NAT Configuration V
- NAT Configuration VI
- NAT Configuration VII
- NTP Configuration I
- NTP Configuration II
- NTP Configuration III
- Terminal Monitor
- Booting a New Router IOS
- Migrating to a New IOS Image

### Network Security

- Securing VTY lines with an ACL I
- Securing VTY lines with an ACL II
- Securing VTY lines with an ACL III
- Securing VTY lines with an ACL IV

- Disabling HTTP/HTTPS access
- Configuring a login banner
- Configuring a MOTD banner
- Configuring an EXEC banner
- Switch hardening configuration I
- Switch hardening configuration II
- Standard ACL
- Extended ACL I
- Extended ACL II
- ACL I
- ACL II
- ACL III
- ACL IV
- ACL V
- ACL VI
- ACL Analysis I
- Named ACL I
- Named ACL II
- Named ACL III
- Configuring Switch Security I
- Configuring Switch Security II
- DHCP snooping
- Dynamic ARP inspection
- Switch Security II
- Switch Security III
- Switch Security IV
- Port security auto-recovery I
- Port security auto-recovery II
- DHCP snooping configuration I
- DHCP snooping configuration II
- DHCP snooping verification I
- Dynamic ARP inspection configuration I
- Dynamic ARP inspection configuration II
- Dynamic ARP inspection verification I

- Dynamic ARP inspection verification II
- Path Troubleshooting III
- Port Security

### **Network Programmability**

- Setting the Configuration Register
- Ignoring the Startup-config File

### **Academic Labs**

- Basic Commands and the Command Line
- Switch Configuration
- Basic Switch Configuration and the Command Line Interface
- Basic Router Configuration and the Command Line Interface
- IP Addressing and Subnetting
- Subnet Challenge
- VLSM Route Selection
- VLSM Overlap
- IPv6 Address Configuration
- IPv6 EUI-64 Calculation
- IP Addressing Final Exam
- IPv6 Address Troubleshooting
- Router on a Stick
- Static VLAN Configuration and Trunking
- VLAN Configuration
- Trunking Configuration
- CDP/LLDP Configuration and Discovery
- EtherChannel
- STP Configuration
- STP Prediction
- Switching Final Exam
- Troubleshooting VLANs
- Troubleshooting Path Analysis
- STP Troubleshooting




- Configuring Static Routes
- Routing OSPF
- Routing OSPF, Load Balancing, and Metric Manipulation
- Route Selection
- Multiprotocol Switching (MLS) Configuration
- Routing Final Exam
- Troubleshooting OSPF
- NAT/PAT Configuration
- NTP Configuration
- Access Lists
- Switch Port Security
- DHCP Snooping Configuration Assessment
- Dynamic ARP Inspection Configuration Assessment
- Security Final Exam
- Troubleshooting I
- Troubleshooting II
- Wireless LAN Controller Configuration Assessment

## Here's what you get




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