



This course supports the assessments for Fundamentals of Interconnecting Network Devices. The course covers 6 competencies and represents 6 competency units.

Introduction

Overview

This course prepares students for the [Cisco CCENT certification exam, Interconnecting Cisco Networking Devices Part I \(ICND1\)](#). This is also the first of two exams that lead to Cisco Certified Networking Associate (CCNA) certification.

Getting Started

Welcome to Fundamentals of Interconnecting Network Devices! Before beginning this course you should have basic hardware and software proficiency (A+ certification or equivalent) and expertise in secure networks (Network+ certification or equivalent). This course includes a uCertify learning resource that provides readings, interactive exercises, flashcards, and practice tests that will help you prepare to demonstrate competency on the assessment. Further practice tests from Boson are provided to support your practice. Additionally, Boson NetSim Environment is provided as a simulator. You will demonstrate competency in one objective assessment, Interconnecting Cisco Networking Devices Part 1 (ICND1). Use the uCertify Study Planner for a pacing guideline to complete the learning material and pass the certification exam within 10 weeks.

Competencies

This course provides guidance to help you demonstrate the following 6 competencies:

- **Competency 419.3.1: Network Topologies**
The graduate distinguishes and explains network topologies, including protocols, ports, addressing schemes, routing, and wireless communication standards.
- **Competency 419.3.2: Media and Topologies**
The graduate differentiates and explains physical and logical topologies, including wiring standards.
- **Competency 419.3.3: Network Devices**
The graduate differentiates and installs/configures network devices.
- **Competency 419.3.4: Network Connectivity and Performance Methodologies**
The graduate identifies appropriate methodologies for troubleshooting network connectivity and performance issues in a given network environment.
- **Competency 419.3.5: Network Troubleshooting Utilities and Analysis**
The graduate uses hardware and software utilities to track and maintain network performance in optimized state.
- **Competency 419.3.6: Network Security Devices**
The graduate differentiates and explains network security devices and methods for troubleshooting common security threats.

Course Instructor Assistance



While you prepare to demonstrate competency in this subject, remember that course instructors stand ready to help you reach your educational goals. As subject matter experts, mentors enjoy and take pride in helping students become reflective learners, problem solvers, and critical thinkers. Course instructors are excited to hear from you and eager to work with you.

Successful students report that working with a course instructor is the key to their success. Course instructors are able to share tips on approaches, tools, and skills that can help you apply the content you're studying. They also provide guidance in assessment preparation strategies, troubleshoot areas of deficiency, and guide you through the revision process if necessary. You should expect to work with course instructors for the duration of your coursework, so you are welcome to contact them as soon as you begin. Course instructors are fully committed to your success!

Preparing for the Assessment

You will complete the [Cisco CCENT certification exam, Interconnecting Cisco Networking Devices Part I \(ICND1\)](#). Review the [topics covered on this ICND1 exam](#) before registering through the assessment tab.

Learning Resources

The learning resources listed in this section are required to complete the activities in this course. For many resources, WGU has provided automatic access through the course. However, you may need to enroll manually or acquire other resources independently. Read the full instructions provided to ensure that you have access to all of your resources in a timely manner.

Manually Enrolled Resources

Take a moment to enroll in the learning resources listed in this section. To enroll, navigate to the "Learning Resources" tab, click the "Sections" button, and then click the "Enroll Now" button for each resource. Once your mentor approves your enrollment in the resource, you will receive an email with further access instructions. Contact your mentor if you have questions.

Boson NetSim

The Boson NetSim environment is a software program designed to simulate Cisco routers and switches. After downloading and installing the program, you will use it to practice CLI commands for Cisco hardware. This will allow you to see the interaction between the different devices and prepare for the simulation questions found on the exam.

Boson NetSim is also used in the Interconnecting Network Devices course leading to CCNA certification. Leave NetSim installed if you plan to continue into Interconnecting Network Devices.

Boson Practice Exam

The Boson Practice Exams allow you to test your subject knowledge after utilizing the other learning resources. This will show you areas on which you should focus further study. The practice tests do not contain actual exam questions, so avoid memorization of specific questions and answers, as this will not help you pass the actual exam.

Automatically Enrolled Resources



You can access the learning resources listed in this section by clicking on the links provided throughout the course. You may be prompted to log in to the WGU student portal to access the resources.

uCertify's Pearson CISCO: CCENT/CCNA (ICND1 100-105) Official Cert Guide

This uCertify course has been updated to support the 100-105 version of the certification exam.

- [uCertify's Pearson CISCO: CCENT/CCNA \(ICND1 100-105\) Official Cert Guide](#)

CBT Nuggets

Videos from the CBT Nuggets are provided within your uCertify course. You may alternately access the complete index of CBT Nuggets with the following link:.

- [CBT Nuggets: Cisco CCENT/CCNA ICND1 100-105](#)

Lock In Your Progress

Once you are ready to start, or are actively working in, the uCertify learning resource, lock in your progress. You only need to complete this step once; any future activity in uCertify will be saved.

Click the check mark above or below if you are actively engaged in this course.