

CCNA 200-301 Exam Preparation

CCNA 200-301 exam prep. Networking fundamentals, security, automation, with hands-on labs.

[IT Certifications](#) Instructor: Brian Mitchell • 5 sections • 44 lessons • 14.00h total

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About this course

Many IT professionals struggle to find reliable study materials for the CCNA 200-301 exam, often wasting time on outdated resources. This course cuts through the noise by providing a structured, hands-on approach to learning the core topics, from network fundamentals to security and automation.

You will learn how to configure and troubleshoot real networks, apply key concepts using step-by-step labs, and test your knowledge with practice scenarios. The course includes video lessons, downloadable study guides, and real case study analysis.

Course curriculum

Foundations and Exam Overview

- **Understanding the CCNA 200-301 Exam Structure (12m)**
Learn the exam format, question types, and scoring to plan your study strategy effectively.
- **Setting Up Your Lab Environment (18m)**
Step-by-step guide to configuring Packet Tracer or a physical lab for hands-on practice.
- **Key Networking Concepts You Must Know (15m)**
Review essential terms like OSI model, TCP/IP, and network devices to build a solid base.
- **How IP Addressing Works in Practice (22m)**
Apply IPv4 and IPv6 addressing with real examples to avoid common configuration errors.
- **Subnetting Made Simple (28m)**
Master subnetting calculations with a downloadable template and practice problems.
- **Introduction to Cisco IOS Commands (14m)**
Get comfortable with basic IOS commands through interactive command-line exercises.
- **Creating Your Study Plan for the Exam (10m)**
Build a personalized timeline based on your experience level and exam goals.

Core Networking Concepts

- **Configuring and Troubleshooting VLANs (25m)**
Learn how to set up VLANs on switches and solve common trunking issues.
- **Understanding Spanning Tree Protocol (STP) (20m)**
See how STP prevents loops in networks with a real case study analysis.
- **Implementing Inter-VLAN Routing (19m)**
Step-by-step guide to routing between VLANs using Layer 3 switches or routers.
- **Static Routing Configuration (16m)**
Set up static routes and understand when to use them over dynamic protocols.
- **Introduction to OSPF Routing (24m)**
Configure OSPF in a small network and troubleshoot neighbor relationships.
- **EIGRP Basics and Configuration (21m)**
Learn EIGRP fundamentals with hands-on labs to verify route convergence.
- **Access Control Lists (ACLs) for Security (17m)**
Apply standard and extended ACLs to filter traffic and protect your network.
- **Network Address Translation (NAT) Setup (23m)**
Configure NAT and PAT to manage IP address translation in real-world scenarios.
- **Wireless LAN Fundamentals (18m)**
Understand Wi-Fi standards and security with practical configuration tips.

Advanced Network Security

- **Firewall Basics with Cisco ASA (22m)**
Set up basic firewall rules and analyze traffic with a downloadable template.

- **VPN Configuration for Remote Access (26m)**
Build IPsec VPN tunnels step-by-step and test connectivity.
- **Securing Network Devices (14m)**
Apply best practices for device hardening, including password policies and SSH.
- **Monitoring with Syslog and SNMP (19m)**
Configure logging and monitoring to detect and respond to network issues.
- **Threat Mitigation Strategies (20m)**
Identify common attacks and implement countermeasures using real case studies.
- **Wireless Security Protocols (15m)**
Learn WPA2/WPA3 setup and troubleshooting for secure Wi-Fi networks.
- **Problem-Solving Session: Security Incidents (28m)**
Analyze and resolve simulated security breaches to reinforce learning.

Network Automation and Programmability

- **Introduction to Network Automation (12m)**
Explore why automation matters and how it applies to CCNA topics.
- **Using Python for Basic Network Tasks (24m)**
Write simple scripts to automate configurations with downloadable code samples.
- **API Basics for Network Devices (18m)**
Learn to interact with devices via REST APIs in a hands-on lab.
- **Configuration Management with Ansible (25m)**
Set up Ansible playbooks to manage multiple devices efficiently.
- **Understanding SDN Concepts (16m)**
See how software-defined networking simplifies network management.
- **IPv6 Automation Scenarios (20m)**
Apply automation to IPv6 deployments with real-world examples.
- **Troubleshooting Automated Networks (22m)**
Identify and fix issues in automated setups using diagnostic tools.
- **Case Study: Automating a Small Business Network (30m)**
Walk through a complete project from design to implementation.
- **Best Practices for Network Programmability (14m)**
Adopt strategies to integrate automation into your daily workflow.

Exam Readiness and Implementation

- **Practice Exam Strategies (15m)**
Learn how to approach multiple-choice and simulation questions effectively.
- **Time Management During the Exam (12m)**
Develop techniques to pace yourself and avoid common pitfalls.
- **Reviewing Key Topics with Flashcards (18m)**
Use downloadable flashcards to reinforce memory of critical concepts.
- **Simulated Lab for Exam Day (28m)**
Complete a timed lab that mimics the exam environment.

- **Common Exam Mistakes to Avoid (16m)**
Analyze frequent errors and how to prevent them in real scenarios.
- **Post-Exam Certification Path (14m)**
Plan your next steps after passing, including advanced Cisco certifications.
- **Job Interview Preparation for CCNA Holders (20m)**
Practice answering networking questions and showcase your skills.
- **Real-World Project: Design a Small Office Network (32m)**
Apply all learned skills in a comprehensive project with a step-by-step guide.
- **Troubleshooting Complex Network Issues (24m)**
Solve multi-layer problems using a structured troubleshooting framework.
- **Staying Current with Cisco Updates (10m)**
Learn how to keep your knowledge up-to-date after certification.
- **Final Review and Confidence Building (15m)**
Consolidate your learning and boost your confidence before the exam.
- **Creating a Personalized Exam Checklist (11m)**
Build a custom checklist to ensure you're fully prepared on exam day.

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