

Cisco 500-275 Exam Prep 2026

Cisco 500-275 2026 exam prep. Device configuration, troubleshooting, and security with hands-on labs.

[IT Certifications](#) Instructor: Jason Miller • 5 sections • 45 lessons • 15.25h total

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About this course

Preparing for the Cisco 500-275 exam can feel overwhelming, especially with the 2026 updates. This course breaks down the key topics into manageable steps, focusing on practical skills you will use on the job. We cover everything from core concepts to advanced troubleshooting.

You will learn how to configure and manage Cisco devices, solve real network problems, and apply security practices. The course includes video lessons, hands-on labs, and downloadable study guides.

Course curriculum

Section 1: Foundations and Preparation

- **Understanding the 500-275 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 a virtual lab for hands-on practice with Cisco devices.
- **Key Networking Concepts Refresher (15m)**
Review essential networking terms and protocols to build a strong foundation for the exam.
- **Cisco Device Basics and CLI Navigation (22m)**
Get comfortable with Cisco command-line interface for efficient device management.
- **Creating a Personalized Study Plan (10m)**
Downloadable template to organize your study schedule and track progress.
- **Common Pitfalls to Avoid in Exam Prep (8m)**
Real-world advice on mistakes to steer clear of during your 500-275 preparation.
- **Resources and Tools for Success (14m)**
Curated list of books, forums, and practice tests to support your learning journey.

Section 2: Core Concepts and Configuration

- **Configuring Basic Router and Switch Settings (20m)**
Hands-on lab to set up initial configurations on Cisco routers and switches.
- **Implementing VLANs and Trunking (25m)**
Step-by-step guide to creating VLANs and configuring trunk ports for network segmentation.
- **IP Addressing and Subnetting Strategies (30m)**
Practical exercises to master IP subnetting for efficient network design.
- **Static and Dynamic Routing Protocols (28m)**
Learn how to configure RIP, OSPF, and EIGRP with real case study analysis.
- **Access Control Lists (ACLs) for Security (18m)**
Problem-solving session on creating and applying ACLs to filter traffic.
- **Network Address Translation (NAT) Setup (22m)**
Configure NAT for private and public IP translation with downloadable templates.
- **Spanning Tree Protocol (STP) Fundamentals (24m)**
Understand and implement STP to prevent loops in your network.
- **Wireless Basics and Configuration (16m)**
Overview of wireless security and setup for Cisco access points.
- **QoS for Network Performance (20m)**
Apply Quality of Service rules to prioritize critical traffic in labs.

Section 3: Security and Advanced Topics

- **Firewall Configuration with Cisco ASA (26m)**
Hands-on lab to set up firewall rules and security zones for protection.

- **VPN Setup: Site-to-Site and Remote Access (32m)**
Step-by-step guide to configuring IPsec VPNs for secure connections.
- **Intrusion Prevention Systems (IPS) Basics (14m)**
Learn how to deploy and tune IPS for threat detection.
- **AAA Authentication and Authorization (21m)**
Implement RADIUS or TACACS+ for secure device access control.
- **Wireless Security Protocols (WPA2/3) (17m)**
Configure secure wireless networks with real-world case studies.
- **IPv6 Configuration and Migration (23m)**
Practical steps to set up IPv6 on Cisco devices and transition from IPv4.
- **Troubleshooting Common Security Issues (19m)**
Problem-solving session with scenarios to diagnose and fix security flaws.

Section 4: Advanced Application and Scenarios

- **Advanced Routing with BGP (28m)**
Configure BGP for inter-domain routing with step-by-step labs.
- **MPLS for Service Provider Networks (30m)**
Understand and implement MPLS for efficient traffic engineering.
- **IPv6 Security Best Practices (22m)**
Apply security measures specific to IPv6 environments.
- **High Availability and Redundancy (25m)**
Set up HSRP and VRRP for failover in critical network setups.
- **Network Monitoring with SNMP and Syslog (18m)**
Configure monitoring tools to track network health and alerts.
- **Cloud Integration with Cisco Meraki (20m)**
Learn to connect on-premises devices to cloud management platforms.
- **Automation with Python and Cisco APIs (35m)**
Scripting basics to automate repetitive network tasks.
- **Case Study: Enterprise Network Design (27m)**
Analyze a real-world scenario to apply all learned concepts.
- **Performance Tuning for Large Networks (24m)**
Optimize network performance with practical tips and templates.
- **Disaster Recovery Planning (16m)**
Develop a recovery plan for network outages with downloadable checklists.

Section 5: Implementation and Exam Success

- **Full Exam Simulation Practice (38m)**
Take timed practice tests to mimic the real exam experience.
- **Reviewing Key Exam Topics (20m)**
Recap critical areas with flashcards and summary guides.
- **Time Management During the Exam (12m)**
Strategies to pace yourself and answer questions efficiently.

- **Handling Difficult Questions (15m)**
Techniques for tackling tricky scenarios and multiple-choice questions.
- **Final Lab: End-to-End Network Build (40m)**
Build a complete network from scratch using all skills learned.
- **Post-Exam Certification Path (10m)**
What to do after passing: continuing education and advanced certs.
- **Common Exam Day Mistakes (8m)**
Real stories and tips to avoid stress on exam day.
- **Study Group and Community Tips (14m)**
How to leverage forums and study groups for support.
- **Updating Skills for Future Cisco Exams (16m)**
Plan for ongoing learning beyond the 500-275.
- **Troubleshooting Exam-Specific Scenarios (22m)**
Practice solving problems similar to those on the actual test.
- **Creating Your Exam Cheat Sheet (11m)**
Downloadable template for quick reference notes.
- **Final Review and Confidence Building (13m)**
Wrap-up session to solidify knowledge and boost confidence.

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