



## CCNP R&S

### Course Overview

The CCNP Routing & Switching curriculum provides a comprehensive overview of enterprise-level networking concepts, including advanced routing switching, and troubleshooting. The curriculum consists of 3 complete courses: SWITCH, ROUTE, and TSHOOT. Industry-relevant instructional approaches help students prepare for professional career opportunities and certification.

### By the end of the course, students will be able to:

- Plan, implement, secure, maintain, and troubleshoot converged enterprise networks.
- Prepare for Cisco CCNP Routing & Switching certification

### Requirements

The curriculum is intended for college and university students or experienced IT professionals who seek to advance their careers.

### For Students

- CCNA Routing & Switching curriculum or equivalent experience



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### Objectives

**After completing the 3 courses, students will be able to perform the following:**

Implement, monitor, and maintain routing and switching services in an enterprise campus network.

Plan, configure, and verify the implementation of complex enterprise LAN and WAN routing solutions

Implement IPv6, RIP, EIGRP, BGP, and OSPF in an enterprise network.

Configure secure routing solutions to support branch offices and mobile workers.

Implement the secure integration of VLANs, WLANs, voice, and video into campus networks.

Plan, configure, and verify the implementation of complex enterprise switching solutions.

Plan and execute regular network maintenance to monitor and maintain complex enterprise routed and switched IP networks.

Perform network troubleshooting using technology-based processes and best practices, based on systematic and industry recognized approaches



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NetAcad CCNP Course	Cisco CCNP Certification Exam
CCNP ROUTE: Implementing IP Routing	Implementing Cisco Routing (ROUTE v2.0) #300-101 ROUTE, 120 min. exam
CCNP SWITCH: Implementing IP Switched Networks	Implementing Cisco Switched Networks (SWITCH v2.0) #300-115 SWITCH, 120 min. exam
CCNP TSHOOT: Troubleshooting and Maintaining IP Networks	Troubleshooting and Maintaining Cisco IP Networks (TSHOOT v2.0) #300-135, 120 min. exam

### Features and Benefits

- Provides an in-depth, theoretical overview of advanced routing and switching and troubleshooting complex enterprise networks
- Builds on the Cisco CCNA Routing & Switching courses with more complex network configurations, diagnosis, and troubleshooting
- Students gain significant hands-on interaction with networking equipment to prepare them for certification exams and career opportunities
- Hands-on labs and case studies help students apply what they learn and develop critical thinking and complex problem-solving skills



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Chapter 11 Troubleshooting IPv4 and IPv6 ACLs and Prefix Lists

Chapter 12 Troubleshooting Basic IPv4/IPv6 Routing and GRE Tunnels

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Chapter 14 Troubleshooting EIGRP

Chapter 15 Troubleshooting OSPF

Chapter 16 Troubleshooting Route Maps and Policy-Based Routing

Chapter 17 Troubleshooting Redistribution

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Chapter 19 Troubleshooting Management Protocols and Tools



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