

CCNA 200-301: Volume 1

Days: 5

Prerequisites: Before attending this course, you should have basic computer literacy, basic PC operating system navigation skills, basic Internet usage skills, and basic knowledge of IP addresses.

Audience: This course is designed for entry-level professionals in networking roles such as: Entry-level Network Engineers, Entry-level Network Administrators, Entry-level Network Support Technicians, Entry-level Help Desk Technicians

Description: CCNA 200-301 Official Cert Guide, Volume 1 provides foundational knowledge to install, configure, and operate small- to medium-sized networks. Through hands-on labs, students will gain practical experience in networking essentials, IP addressing, routing protocols, and Ethernet LANs, preparing them for the CCNA 200-301 v1.1 certification exam.

Course Objectives

In this course, you will:

- Identify the components of a computer network and describe their characteristics
- Understand host-to-host communication models
- Configure switches and routers
- Implement VLANs and inter-VLAN routing
- Understand and configure IPv4 and IPv6 addressing
- Analyze and troubleshoot network issues
- Implement basic security configurations, such as Access Control Lists (ACLs)

OUTLINE:

PART I: INTRODUCTION TO NETWORKING

- Chapter 1: Introduction to TCP/IP Networking
- Chapter 2: Fundamentals of Ethernet LANs
- Chapter 3: Fundamentals of WANs and IP Routing
- Part I Review

PART II: IMPLEMENTING ETHERNET LANS

- Chapter 4: Using the Command-Line Interface
- Chapter 5: Analyzing Ethernet LAN Switching
- Chapter 6: Configuring Basic Switch Management

- Chapter 7: Configuring and Verifying Switch Interfaces
- Part II Review

PART III: IMPLEMENTING VLANS AND SPANNING TREE PROTOCOL (STP)

- Chapter 8: Implementing Ethernet Virtual LANs
- Chapter 9: Spanning Tree Protocol Concepts
- Chapter 10: RSTP and EtherChannel Configuration
- Part III Review

PART IV: IPV4 ADDRESSING

- Chapter 11: Perspectives on IPv4 Subnetting

CCNA 200-301: Volume 1

- Chapter 12: Analyzing Classful IPv4 Networks
- Chapter 13: Analyzing Subnet Masks
- Chapter 14: Analyzing Existing Subnets
- Chapter 15: Subnet Design
- Part IV Review

PART V: IPV4 ROUTING

- Chapter 16: Operating Cisco Routers
- Chapter 17: Configuring IPv4 Addresses and Static Routes
- Chapter 18: IP Routing in the LAN
- Chapter 19: IP Addressing on Hosts
- Chapter 20: Troubleshooting IPv4 Routing
- Part V Review

PART VI: OPEN SHORTEST PATH FIRST (OSPF)

- Chapter 21: Understanding OSPF Concepts
- Chapter 22: Implementing Basic OSPF Features
- Chapter 23: Implementing Optional OSPF Features
- Chapter 24: OSPF Neighbors and Route Selection
- Part VI Review

PART VII: IP VERSION 6 (IPV6)

- Chapter 25: Fundamentals of IPv6
- Chapter 26: IPv6 Addressing and Subnetting
- Chapter 27: Implementing IPv6 Addressing on Routers
- Chapter 28: Implementing IPv6 Addressing on Hosts
- Chapter 29: Implementing IPv6 Routing
- Part VII Review

PART VIII: EXAM UPDATES

- Chapter 30 CCNA 200-301 Official Cert Guide, Volume 1, Second Edition Exam Updates

APPENDIX

- Appendix A: Numeric Reference Tables
- Appendix B: Exam Topics Cross-Reference
- Appendix C: Answers to "Do I Know This Already?" Quizzes

GLOSSARY