MYCOMPUTER CAREER
TRAINING FOR A BETTER LIFE

Cisco Networking Associate Syllabus
CCNA 200-301

Course Description

Cisco Networking Associate: In this course, students will learn theory and demonstrate skills to understand network fundamentals, network access, IP connectivity and services, and network security fundamentals, laying the foundation for network automation and programmability.

The class will begin at 8:00 A.M. EST each instructional day on Saturdays and conclude at 6:00 P.M. EST each session. The course consists of a total of 40 hours.

(Text Reference: Official Cert Guide Library CCNA 200-301, Wendell Odom, 2019,
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Saturday 1

Morning Session: Introduction to Networking
- Topics
    - Lesson 1: Introduction to TCP/IP Networking
    - Lesson 2: Fundamentals of Ethernet Lans
    - Lesson 3: Fundamentals of WANs and IP Routing
- Activities and Demonstrations
    - Networking Concepts- Part One (Skillsoft Demo Lab)
    - Networking Concepts- Part Two (Skillsoft Lab)
- End of Class Review

Afternoon Session: Implementing Ethernet LANs
- Topics
    - Lesson 4: Using the Command Line Interface
    - Lesson 5: Analyzing Ethernet LAN Switching
    - Lesson 6: Configure Basic Switch Management
    - Lesson 7: Configure and Verifying Switch Interfaces
- Activities and Demonstrations
    - Switching Fundamentals - Part One (Skillsoft Demo Lab)
    - Switching Fundamentals - Part Two (Skillsoft Lab)
- End of Class Review

Saturday 2
Morning Session: Implementing Vlans and STP

- Topics
    - Lesson 8: Implementing Ethernet Virtual Lans
    - Lesson 9: Spanning Tree Protocol Concepts
    - Lesson 10: RSTP and Etherchannel Configuration
- Activities and Demonstrations
    - Configuring VLANS - Part One (Skillsoft Demo Lab)
    - Configuring VLANS - Part Two (Skillsoft Lab)
- End of Class Review

Afternoon Session: Part IV & Part VII: IP Addressing
- Topics
    - Lesson 11: Perspectives on IPv4 Subnetting/ Lesson 22: Fundamentals of IP Version 6
    - Lesson 12: Analyzing Classful IPv4 Networks
    - Lesson 13: Analyzing Subnet Masks/ Lesson 23 IPv6 Addressing and Subnetting
    - Lesson 14: Analyzing Existing Subnets
    - Lesson 24: Implementing IPv6 Addressing on Routers
    - Lesson 25: Implementing IPv6 Routing
- Activities and Demonstrations
    - IP Addressing and Virtualization Concepts
    - Exercises: 1-4 (Skillsoft Demo Lab)
    - Exercises: 5-16 (Skillsoft Lab)
- End of Class Review

Saturday 3
Morning Session: Part V: IPv4 Routing
- Topics
    - Lesson 15: Operating Cisco Routers
    - Lesson 16: Configuring IPv4 Addresses and Static Routes
    - Lesson 17: IP Routing in the LAN
    - Lesson 18: Troubleshooting IPv4 Routing
- Activities and Demonstrations
    - Static and Dynamic Routing Principles - (Skillsoft Lab)
    - FHRP Configuration and Verification - (Skillsoft Demo Lab)
- End of Class Review

Afternoon Session: OSPF
- Topics
    - Lesson 19: Understanding OSPF Concepts

- ○ Lesson 20: Implementing OSPF
  - ○ Lesson 21: OSPF Network Types and Neighbors
- Activities and Demonstrations
  - ○ QoS for Routing Configuration using PHB - (Skillsoft Demo Lab)
  - ○ Configure OSPFv2 - (Skillsoft Lab)
- End of Class Review

Saturday 4

Morning Session: Wireless LANs

- Topics
  - ○ Lesson 26: Fundamentals of Wireless Networks
  - ○ Lesson 27: Analyzing Cisco Wireless Architectures
  - ○ Lesson 28: Securing Wireless Networks
  - ○ Lesson 29: Building a Wireless LAN
- Activities and Demonstrations
  - ○ Security Mitigation Techniques - (Skillsoft Demo Lab)
  - ○ Wireless Architecture and Application - (Skillsoft Lab)
- End of Class Review

Afternoon Session: Network Automation & Course Review

- Topic
  - ○ Lesson 16: Introduction to Controller-Based Networking
  - ○ Lesson 17: Cisco Software-Defined Access (SDA)
  - ○ Lesson 18: Understanding REST and JSON
  - ○ Lesson 19: Understanding Ansible, Puppet, and Chef
- Activities and Demonstrations
  - ○ Puppet ID: pit_os_dopu (Skillsoft Demo Lab)
  - ○ Mastering DevOps with Chef ID: pit_os_doch (Skillsoft Lab)
- End of Course Review
  - ○ Student-focused Q&A for Understanding