Junior Cybersecurity Analyst

Continue learning networking essentials and build your foundational skills.

Class 3: Networking Devices and Initial Configuration
(22 Hours, 19 Labs, 6 Weeks 2 classes per week for 2 hour)

If you know the basics of networking, then get ready to strengthen your foundation. A strong networking background is key if you are interested in exciting fields such as Cybersecurity and Network Development (DevNet) or want to continue towards a networking certification like Cisco Certified Network Associate (CCNA).

This course covers the essentials of network devices and how to configure them. Learn the characteristics and benefits of Cloud and Virtualization technologies. Explore how to provide Internet Protocol (IP) addresses to devices both manually and automatically. Using this knowledge, you will calculate an IP addressing scheme, configure Cisco devices to create a small network, and test for connectivity issues.

Here's what you will learn.

My Knowledge Check [beta]

Course Introduction

Module 1: Network Design
Module 2: Cloud and Virtualization
Module 3: Number Systems

Checkpoint Exam: Characteristics of Network Design

Module 4: Ethernet Switching
Module 5: Network Layer
Module 6: IPv4 Address Structure

Checkpoint Exam: Network Addressing

Module 7: Address Resolution
Module 8: IP Addressing Services
Module 9: Transport Layer

Checkpoint Exam: ARP, DNS, DHCP and the Transport Layer

Module 10: The Cisco IOS Command Line
Module 11: Build a Small Cisco Network
Module 12: ICMP

Checkpoint Exam: Configure Cisco Devices

Networking Devices and Initial Configuration Course Final Exam

Resources

1.2.3 View Wireless and Wired NIC Information, HTML

10.2.6 Navigate the IOS, HTML

10.2.6 Packet Tracer - Navigate the IOS, PKA

10.3.3 Packet Tracer - Use Cisco IOS Show Commands, PKA

10.3.3 Use Cisco IOS Show Commands, HTML

11.1.4 Implement Basic Connectivity, HTML

11.1.4 Packet Tracer - Implement Basic Connectivity, PKA

11.2.4 Configure Initial Router Setting, HTML

11.2.4 Packet Tracer - Configure Initial Router Setting, PKA

11.3.6 Configure SSH, HTML

11.3.6 Packet Tracer - Configure SSH, PKA

11.4.4 Packet Tracer Tutored Activity - Build a Switch and Router Network, PKSZ

11.4.5 Packet Tracer - Troubleshoot Default Gateway Issues, PKA

11.4.5 Troubleshoot Default Gateway Issues, HTML

12.2.6 Packet Tracer - Verify IPv4 and IPv6 Addressing, PKA

12.2.6 Verify IPv4 and IPv6 Addressing, HTML

12.2.7 Packet Tracer - Use Ping and Traceroute to Test Network Connectivity, PKA

12.2.7 Use Ping and Traceroute to Test Network Connectivity, HTML

12.3.1 Packet Tracer - Use ICMP to Test and Correct Network Connectivity, PKA

12.3.1 Use ICMP to Test and Correct Network Connectivity, HTML

2.2.3 Install Linux in a Virtual Machine and Explore the GUI, HTML

4.1.4 Determine the MAC Address of a Host, HTML

4.2.6 View Captured Traffic in Wireshark, HTML

4.2.7 Use Wireshark to Examine Ethernet Frames, HTML

7.1.10 Packet Tracer - View ARP Traffic in Wireshark, PKA

7.1.10 View ARP Traffic in Wireshark, HTML

7.1.9 Examine the ARP Table, HTML

7.1.9 Packet Tracer - Examine the ARP Table, PKA

8.1.8 Observe DNS Resolution, HTML
9.8.1 Packet Tracer - TCP and UDP Communications, PKA
9.8.1 TCP and UDP Communications, HTML