



Interconnecting Cisco Networking Devices (ICND) Course Syllabus:

Entertaining talk-show style format presented by industry leading experts.

- 40+ hours of virtual training, practice exams, labs, and study.
- Receive a Certificate of completion.
- Presented by highly qualified, industry leading experts.
- 12 Months Access (*Unless indicated otherwise*)
- Self-paced





Description

ICND1 is an exam associated with the Cisco CCENT exam and is a first step to ultimately achieving the CCNA Routing and Switching Certification. Skills developed assist the student in installing, configuring, and troubleshooting small networks as well as working with Cisco routers and switches. The ICND2 course teaches topics related to LAN switching technologies, IPv4 and IPv6 routing technologies, WAN technologies, infrastructure services, and infrastructure maintenance.

Objectives

- Compare and contrast OSI and TCP/IP models.
- Compare and contrast TCP and UDP protocols.
- Describe the impact of infrastructure components in an enterprise network. ...
- Compare and contrast collapsed core and three-tier architectures.
- Compare and contrast network topologies.
- Configure, verify, and troubleshoot VLANs (normal/extended range) spanning multiple switches.
- Configure, verify, and troubleshoot Interswitch connectivity.
- Configure, verify, and troubleshoot STP protocols.
- Configure, verify, and troubleshoot STP-related optional features.

Prerequisites

- Basic Windows navigation and keyboard literacy skills.
- Basic Internet usage skills.
- Basic IP addressing knowledge.
- Implement local area networks.
- Implement Internet connectivity.
- Manage network devices.
- Secure network devices.
- Implement basic IPv6 connectivity.

Target Audience

This course is intended for network engineers and administrators who will install, operate, and troubleshoot a small branch office Enterprise network. This is an entry level course and is ideal for those individuals new to networking and looking to start their Cisco Career Certification accreditation.



Syllabus

Prepare for the Cisco ICND exams with the excellent practice performance-based learning tool. Practice performance-based learning enables you to practice on test questions and assess your skill and knowledge of the material.

- Includes multiple questions to test performance-and understanding.
- Requires Windows, macOS, Chrome OS, or Linux (iOS and Android not supported)
- Single-user license

Cisco 100-105: ICND1 - Interconnecting Cisco Networking Devices Part 1

Description

ICND1 is an exam associated with the Cisco CCENT exam and is a first step to ultimately achieving the CCNA Routing and Switching Certification. Skills developed assist the student in installing, configuring, and troubleshooting small networks as well as working with Cisco routers and switches.

Module 1 Networking Fundamentals	Introduction to TCP/IP networking as the primary dominant networking model on modern Ethernet networks	Learn the fundamentals of data transfer on Ethernet LANs
Understanding basic WAN connectivity options	Identify the purpose and structure of IPv4 addresses	Identify the purpose of routing processes
Understanding Transport layer and application protocols	Module 2 Basic Ethernet LAN Implementation	Understanding basic command line administration using the Cisco IOS on routers and switches
Understanding the fundamental purpose of an Ethernet switch	Identifying Switch management capabilities	Accessing and configuring switch interfaces
Module 3 Designing Ethernet LANS	Identifying LAN topology options	Understanding the basics of LAN communication
Implementing and configuring VLANs	Implementing and configuring VLAN trunking	Module 4 Understanding IPv4
Learn the purpose and structure of an IPv4 address	Learn the purpose and structure of an IPv4 subnet mask	Understand the purposes of subnetting
Identify key facts about an IPv4 address	Configure routers using the CLI	Configuring router interfaces with IPv4 addresses



Understanding routing protocols	Configuring static routes	Configuring clients with IPv4 addresses using DHCP
Module 5 Working with Cisco Routers	Understanding Transport layer and application protocols	Implementing and configuring VLAN trunking
Design the appropriate subnet mask based on requirements	Identify network IDs and subnet IDs	Utilizing Variable Length Subnet Masks when subnetting
Troubleshooting IPv4 client connectivity and routing issues	Module 6 IPv4 Design and Troubleshooting	Creating and configuring Access Control Lists
Working with Named Access Control Lists	Understanding Network Address Translation Concepts	Configuring Network Address Translation on Routers
Module 7 IPv4 Services	Creating and configuring Access Control Lists	Working with Named Access Control Lists
Understanding Network Address Translation Concepts	Configuring Network Address Translation on Routers	Module 8 Implementing IPv6
Understand the fundamentals of IPv6	Understand the structure of IPv6 Addresses	Identify the different types of IPv6 Addresses
Configuring IPv6 Addresses	Configuring IPv6 Routing	Creating IPv6 Subnets
Assigning IPv6 Addresses to clients		

Cisco 200-105: ICND2 – Interconnecting Cisco Networking Devices Part 2

Description

The ICND2 course teaches topics related to LAN switching technologies, IPv4 and IPv6 routing technologies, WAN technologies, infrastructure services, and infrastructure maintenance.

Module 1 – Configuring Ethernet LANs	Configuring Ethernet VLANs	Understand Spanning Tree Protocol Concepts
Implement STP and RSTP on Cisco Switches	Configure and implement the VLAN Trunking Protocol	Configure AAA Authentication for Switches



Training Center

Identify the need and implementation of switch stacking and chassis aggregation	Configure DHCP Snooping	Use the Simple Network Management Protocol
Configure and use IP SLA	Module 2 – Configuring IPv4 Routing Protocols	Understand the concepts of the OSPF Routing Protocol
Identify the function of LSAs, LSDB, Neighbor Relationships, and the flooding of data	Implement the OSPF routing protocol on Cisco Routers	Understand the concepts of the EIGRP Routing Protocol
Implement EIGRP for IPv4	Troubleshooting Routing Protocols	Module 3 – Implementing Wide Area Networks
Implementing Point-to-Point WANs	Utilize HDLC and PPP data link protocols	Implement Ethernet and MPLS WANs
Implement Private WANs using Virtual Private Networks	Module 4 – Configuring IPv4 Services	Creating and configuring Access Control Lists
Working with Named Access Control Lists	Configuring Extended Access Control Lists	Understand the need for Quality of Service
Implementing QoS	Module 5 – IPv4 Routing and Troubleshooting	Identify different configuration methods for VLANs and ROAS
Understand Layer 3 Switching with routed ports	Configure and use Layer 3 EtherChannel	Implement HSRP for First-Hop Routing
Configure and verify redundancy using HSRP	Troubleshooting common IPv4 Routing Issues	Module 6 – IPv6 Routing and Troubleshooting
Configuring IPv6 Routing and Troubleshooting	Implement OSPFv3 for IPv6	Implementing EIGRP for IPv6
Understand and use Access Control Lists in IPv6	Module 7 – Understanding Cloud Based Networking	Basic Concepts of Cloud Computing
Identify the Cloud Computing Models	Understand the need for SDN	Implementing SDN



Practice, Labs, Flash Cards, Quizzes etc.

Practice for the Accounting and Business certification exams include flashcards, quizzes, games and learning modules. Prepare for Accounting and Business performance-based certification exam questions.

- *Click!* interactive graphical exercises.
- *Type!* interactive exercises.
- *Challenge!* interactive identification exercises.

Prepare for the Accounting and Business exam with excellent practice tests. The 450+ questions mirror the questions you will see on the real exam; enabling you to practice on test questions and assess your skill and knowledge of the material.

- Includes over 495 questions.
- Requires Windows, macOS, Chrome OS, or Linux (iOS and Android not supported)
- Single-user license

Testing Features

Quiz and Testing Modes

- Practice Mode: quizzes for each module.
- Exam Mode: just like the real thing, no help, just you and the questions.

Quiz and Test History

- See the date you took each test.
- View final score for each test.
- Review each question, see your answer and the correct answer.



Sample Certificate upon completions of each course



To learn more, contact us at 877-732-6772 or info@lionfishcybersecurity.com

www.LionfishCyberSecurity.com



This institution is regulated by the Office for
Career and Technical Schools - 10 N Senate
Avenue, Suite SE 308, Indianapolis 46204 -
OCTS@dwd.in.gov
<http://www.in.gov/dwd/2731.htm>

3815 River Crossing Pkwy
Suite 100, Indianapolis,
IN, 46240



CMC-AB Registered Provider Organization™

www.LionfishCyberSecurity.com
877-732-6772 or info@lionfishcybersecurity.com
101 West Ohio Street, Suite 2000, Indianapolis, In 462045