



# Interconnecting Cisco Networking Devices Part 1 (ICND1)

Course ID#: 1575-926-ZZ-W

Hours: 35

## Course Content

### Course Description:

This course focuses on providing the skills and knowledge necessary to install, operate, and troubleshoot a small branch office Enterprise network, including configuring a switch, a router, and connecting to a WAN and implementing network security. A Student should be able to complete configuration and implementation of a small branch office network under supervision.

### Topics:

#### Module 1: Building a Simple Network

- Exploring the Functions of Networking
- Host-to-Host Communications Model
- Introducing LANs
- Operating Cisco IOS Software
- Starting a Switch
- Ethernet and Switch Operation
- Troubleshooting Common Switch Media Issues

#### Module 2: Establishing Internet Connectivity

- TCP/IP Internet Layer
- IP Addressing and Subnets
- TCP/IP Transport Layer
- Exploring the Functions of Routing
- Configuring a Cisco Router
- Exploring the Packet Delivery Process
- Enabling Static Routing
- Managing Traffic Using ACLs
- Enabling Internet Connectivity

#### Module 3: Managing Network Device Security

- Securing Administrative Access
- Implementing Device Hardening
- Implementing Traffic Filtering with ACLs

#### Module 4: Building a Medium-Sized Network

- Implementing VLANs and Trunks
- Routing Between VLANs
- Using a Cisco Network Device as a DHCP Server
- WAN Technologies
- Dynamic Routing Protocols
- Implementing OSPF

#### Module 5: Introducing IPv6

- Basic IPv6
- Configuring IPv6 Routing