

# Fundamental Networking (FN)

Duration 2 Days

## COURSE CONTENT

This course introduces basic data communication to audiences with little or no background in computer networking. Major components and technologies of networking system will be covered. This course provides necessary information for students who would like to attend Interconnecting Cisco Network Devices (ICND).

## PREREQUISITES

Students should have a basic idea of how computer works and have some experiences with the internet. Students should be familiar with bits, bytes, and binary system.

## COURSE OUTLINE

### Day 1:

#### **Introduction to Networking Model**

- Introduction to networking and terminology
- OSI and TCP/IP model
- MAC address
- IP address and subnet
- Port number
- Network Address Translation
- Introduction to IPv6

#### **Physical layer (LAN cable)**

- Port cable and connectors

#### **Introduction to Networking Devices**

- Router fundamental
- Switch fundamental
- Access Point fundamental
- Access Point mode

### Day 2:

#### **Network Protocol**

- Address Resolution Protocol
- Dynamic Host Configuration Protocol
- Domain Name System
- Internet Control Message Protocol
- File Transfer Protocol
- HTTP protocol
- Troubleshooting tools
  - ping command
  - traceroute command
  - nslookup
  - ipconfig

#### **NAT - Network Address Translation**

#### **WAN - Wide Area Network**