

# **Certified Cisco Networking for Beginners**

**Duration:** 12 Weeks

**Overview:**

This course provides a solid foundation in networking principles and Cisco technologies. Students will gain practical knowledge in configuring, managing, and troubleshooting basic network setups, preparing them for entry-level networking roles.

**Course Modules:**

**1. Introduction to Networking Concepts**

- Understanding network types (LAN, WAN, MAN)
- Networking models: OSI and TCP/IP
- Network topologies and devices

**2. Cisco Device Fundamentals**

- Overview of routers and switches
- Introduction to Cisco IOS
- Basic device configuration

**3. IP Addressing & Subnetting**

- IPv4 and IPv6 fundamentals
- Subnetting techniques and exercises
- Address planning for networks

**4. Routing and Switching Basics**

- Static routing configuration
- VLANs and inter-VLAN routing
- Basic switch management

**5. Network Security Fundamentals**

- Access Control Lists (ACLs)

- Basic firewall and security configurations
- Securing network devices

## 6. Practical Labs & Hands-On Exercises

- Packet Tracer simulations
- Real-world network troubleshooting

### **Certification:**

Upon successful completion, students receive a **Certified Cisco Networking for Beginners Certificate**, recognised in the UK and internationally for entry-level networking roles.

## 2. CCNP Enterprise Networking Program

**Duration:** 12 Weeks

### **Overview:**

This advanced course is designed for networking professionals seeking to enhance their skills in enterprise-level Cisco network design, implementation, and troubleshooting. It aligns with UK standards for professional certification and prepares students for the **CCNP Enterprise certification**.

### **Course Modules:**

#### 1. Enterprise Network Architecture

- Hierarchical network design (Core, Distribution, Access)
- High availability and redundancy
- Network scalability and optimization

#### 2. Advanced Routing Technologies

- OSPF, EIGRP, BGP configuration and troubleshooting
- Route redistribution and summarization
- IPv6 routing protocols

#### 3. Switching and VLAN Management

- Advanced VLAN configuration
- Spanning Tree Protocol (STP) and Rapid STP
- Layer 3 switching

#### **4. WAN Technologies & VPNs**

- MPLS and WAN design strategies
- VPN types and configuration
- QoS implementation

#### **5. Network Security & Access Control**

- Implementing ACLs for enterprise networks
- Network segmentation and secure access
- Basic firewall and intrusion prevention strategies

#### **6. Network Automation & Troubleshooting**

- Introduction to automation tools and scripting
- Network monitoring and diagnostics
- Real-world troubleshooting labs

#### **Certification:**

Successful participants will earn the **CCNP Enterprise Networking Certificate**, recognised in the UK and internationally for professional networking roles.