

## **Enterprise Computing Solutions - Education Services**

# **TRAINING OFFERING**

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### Implementing and Administering Cisco Solutions

CODE: LENGTH: PRICE:

CIS CCNA 40 Hours (5 days) Request Price

#### **Description**

The Implementing and Administering Cisco Solutions (CCNA) v1.0 course gives you a broad range of fundamental knowledge for all IT careers. Through a combination of lecture, hands-on labs, and self-study, you will learn how to install, operate, configure, and verify basic IPv4 and IPv6 networks. The course covers configuring network components such as switches, routers, and wireless LAN controllers; managing network devices; and identifying basic security threats. The course also gives you a foundation in network programmability, automation, and software-defined networking.

#### **Objectives**

his course will help you:

Learn the knowledge and skills to install, configure, and operate a small- to medium-sized network Gain a foundation in the essentials of networking, security, and automation Earn 30 CE credits toward recertification

#### **Audience**

This course is designed for anyone seeking CCNA certification. The course also provides foundational knowledge for all support technicians involved in the basic installation, operation, and verification of Cisco networks.

The job roles best suited to the material in this course are:

Entry-level network engineer

Network administrator

Network support technician

Help desk technician

#### **Prerequisites**

Before taking this course, you should have:

Basic computer literacy

Basic PC operating system navigation skills

Basic Internet usage skills

Basic IP address knowledge

There are no formal prerequisites for CCNA certification, but you should make sure to have a good understanding of the exam topics.

#### **Programme**

Identify the components of a computer network and describe their basic characteristics

Understand the model of host-to-host communication

Describe the features and functions of the Cisco Internetwork Operating System (IOS®) software

Describe LANs and the role of switches within LANs

Describe Ethernet as the network access layer of TCP/IP and describe the operation of switches

Install a switch and perform the initial configuration

Describe the TCP/IP Internet layer, IPv4, its addressing scheme, and subnetting

Describe the TCP/IP Transport layer and Application layer

Explore functions of routing

Implement basic configuration on a Cisco router

Explain host-to-host communications across switches and routers

Identify and resolve common switched network issues and common problems associated with IPv4 addressing

Describe IPv6 main features and addresses, and configure and verify basic IPv6 connectivity

Describe the operation, benefits, and limitations of static routing

Describe, implement, and verify Virtual Local Area Networks (VLANs) and trunks

Describe the application and configuration of inter-VLAN routing

Explain the basics of dynamic routing protocols and describe components and terms of Open Shortest Path First (OSPF)

Explain how Spanning Tree Protocol (STP) and Rapid Spanning Tree Protocol (RSTP) work

Configure link aggregation using EtherChannel

Describe the purpose of Layer 3 redundancy protocols

Describe basic WAN and VPN concepts

Describe the operation of Access Control Lists (ACLs) and their applications in the network

Configure Internet access using Dynamic Host Configuration Protocol (DHCP) clients and explain and configure Network Address Translation (NAT) on Cisco routers

Describe basic Quality of Service (QoS) concepts

Describe the concepts of wireless networks, which types of wireless networks can be built, and how to use Wireless LAN Controllers (WLCs)

Describe network and device architectures and introduce virtualization

Introduce the concept of network programmability and Software-Defined Networking (SDN) and describe smart network management solutions such as Cisco DNA Center™, Software-Defined Access (SD-Access), and Software-Defined Wide Area Network (SD-WAN)

Configure basic IOS system monitoring tools

Describe the management of Cisco devices

Describe the current security threat landscape

Describe threat defense technologies

Implement a basic security configuration of the device management plane

Implement basic steps to harden network devices

#### **Test and Certification**

This course helps you prepare to take the 200-301 Cisco® Certified Network Associate (CCNA®) exam. By passing this one exam, you earn CCNA certification

#### **Session Dates**

Su richiesta. Contattaci al n.ro +39 0471 099134 oppure via mail a training.ecs.it@arrow.com

#### Informazioni aggiuntive

Questa formazione è disponibile anche come formazione in loco. Per favore, contattaci per saperne di più.