

# Cisco CCNA: Implementation and Administration of Cisco Solutions, Certification Prep

Hands-on course of 5 days - 35h

Ref.: CCD - Price 2025: 4 140 (excl. taxes)

## EDUCATIONAL OBJECTIVES

At the end of the training, the trainee will be able to:

- Implement a small- or medium-sized network
- Establish Internet connectivity
- Describe routing concepts and implement routing on a network
- Implement and troubleshoot the EIGRP and OSPF protocols in an IPv4 and IPv6 environment

## TEACHING METHODS

Balanced mix of presentations, workshops on a simulator, and scenarios under similar conditions to the certification test.

## CERTIFICATION

CCNA - Cisco Certified Network Associate. This course includes the voucher needed to register for and take exam 200-301 from Cisco's partner, Pearson Vue.

## THE PROGRAMME

last updated: 05/2024

### 1) Network equipment security

- The current landscape of security threats.
- Threat defense technologies.

### 2)

- Upgrading to smart networks
- Network architectures and virtualization.
- The concept of network programmability and software-defined networks (SDN).
- Smart network management solutions like (Cisco DNA Center, SD-Access and SD-WAN).
- Configuring IOS monitoring tools.
- Managing Cisco equipment.

### 3) Advanced wide-area network features

- Basic concepts of WAN and VPNs.
- How access control lists (ACLs) and their applications work.
- Configuring Internet access using DHCP (dynamic host configuration protocol) clients.
- Configuring network address translation (NAT).

### 4)

- Implementing campus network upgradability
- How the spanning tree protocol (STP) and rapid spanning tree protocol (RSTP) work.
- Configuring link aggregation using EtherChannel.
- Layer 3 redundancy protocols.

### 5)

- Implementing routing
- Static routing: How it works, its benefits and limits.
- Describing, implementing, and verifying virtual local area networks (VLANs) and trunks.
- Applying and configuring inter-VLAN routing.

## TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

## ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more. Participants also complete a placement test before and after the course to measure the skills they've developed.

## TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

## TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

## ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at [psh-accueil@ORSYS.fr](mailto:psh-accueil@ORSYS.fr) to review your request and its feasibility.

- Basics of dynamic routing protocols, components and functions of Open Shortest Path First (OSPF).

#### 6) Internet v4 and v6 connectivity

- The Internet TCP/IP layer, IP v4, addressing plans and subnets.
- The TCP/IP layer (transport and application).
- Basic routing and configuration functions on a Cisco router.
- Host-to-host communications on switches and routers.
- Identifying and solving common problems in switched networks and IPv4-related problems.

#### 7)

- Building a simple network
- Components of a computer network and basic characteristics.
- Switch and initial configuration.

## DATES

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### REMOTE CLASS

2025 : 04 août, 17 nov.