PDF SYLLABUS

# Cisco CCNA Computer Networks

Clear overview of course topics, training scope and key information.

The Cisco CCNA Computer Networks training is intended for applicants interested in computer networks and their future administrators. A course graduate will gain general knowledge about how the Internet and networks in a corporate environment work. In addition to acquiring the necessary theory, they will also gain practical skills with the design and operation of computer networks, as well as solving common technical problems. The graduate will also go through the area of routing in IP networks with a focus on static and dynamic routing technologies in IP networks; it is intended for computer network administrators built primarily on Cisco routers.

## COURSE CONTENT

01 **General View of the World of Current Computer Networks - Global Internet Network and Options for Connecting to the Internet**

02 **Classification and Characteristics of Computer Networks by Type, Specification of Used Transmission Media and Protocols**

Local Area Network (LAN) Metropolitan Area Network (MAN) Wide Area Network (WAN) Virtual Private Network (VPN)

03 **ISO OSI and TCP/IP Models**

04 **Active Network Elements - Basic Building Blocks of Computer Networks and Description of Their Activity**

hub bridge switch router

Macrosoft

*Vzdelávanie s trvalým efektom*

DOCUMENT

Course syllabus

CATEGORY

**Computer network, CISCO courses**

TRAINING FORMAT

**In Bratislava or online with a lecturer**

PRICE EXCL. VAT

**2 030,00 €**

PRICE INCL. VAT

**2 496,90 €**

including 23 % VAT

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05 **Data Link Layer Protocols of ISO OSI Theoretically**

Ethernet Fast Ethernet Gigabit Ethernet

06 **Network Layer Protocols of ISO OSI Theoretically and Practically**

Internet Protocol (IP) Internet Control Message Protocol (ICMP)

07 **Transport Layer Protocols of ISO OSI Theoretically and Practically**

Transmission Control Protocol (TCP) User Datagram Protocol (UDP)

08 **Application Layer Protocols of ISO OSI Theoretically and Practically**

Local Area Network (LAN) Wide Area Network (WAN)

09 **Theoretical Introduction to Routing in IP Networks**

10 **Familiarization with the Router and Cisco IOS Command Line**

11 **CDP (Cisco Discovery Protocol) Protocol Practically**

12 **Static Routing Theoretically and Practically**

static routes with next-hop address static routes with output interface static routes with next-hop address and output interface summary static routes default static route floating static routes

13 **Theoretical Introduction to Switching in LAN Networks**

hierarchical network model (Access, Distribution, Core layer of LAN network) Ethernet, Fast Ethernet, Gigabit Ethernet technologies - repetition design of a switch network in a corporate environment

14 **Virtual LAN (VLAN) Networks and 802.1Q Trunking**

15 **STP (Spanning Tree Protocol) Protocol**

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16 **Routing Between VLANs**

traditional Inter-VLAN routing Router-on-a-Stick

17 **Switch Security, Port Security**

18 **Redundancy in LAN, HSRP (Hot Standby Router Protocol) Protocol**

19 **EtherChannel**

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This document serves as an informational overview of the course syllabus. Current dates, venue and availability are listed at Macrosoft.sk.

https://www.macrosoft.sk/en/courses/cisco-ccna-computer-networks