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

350,00 €

PRICE INCL. VAT

430,50 €

including 23 % VAT

PDF SYLLABUS

Computer Network Administrator

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

You will learn how a local computer network works and understand how the internet works. You will use the theoretical basics of computer networks to create a design of a secure local computer network (LAN). A basic overview in the area of networks is the entry gate into the world of networking.

COURSE CONTENT

01

Principles of Computer Networks

Division and characteristics of a computer network Reference model RM OSI, TCP/IP Devices in a network: hub, bridge, switch, router, firewall, WiFi AP, ... Types of computer network connection Delays and packet losses, TTL data, protection against errors Connecting networks with and without connection, packet fragmentation and defragmentation Collision domains, packet collisions Switching at the first, second and third layer of RM OSI Addressing in a network - IPv4, IPv6 addresses, terms IP address, MAC address, mask, subnet, broadcast, public and static IP address Principles of NAT technology, when it is used, why it is currently needed.

02

Network Layer Protocols of ISO OSI Theoretically and Practically

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

03

Transport Layer Protocols of ISO OSI Theoretically and Practically

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

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04

Application Layer Protocols of ISO OSI Theoretically and Practically

Hypertext Transfer Protocol (HTTP) Hypertext Transfer Protocol Secure (HTTPS) Domain Name System (DNS) Address Resolution Protocol (ARP) Dynamic Host Configuration Protocol (DHCP) File Transfer Protocol (FTP) Secure Shell (SSH)

05

Daily Tasks of a Network Administrator

Security aspects in a computer network, types of some attacks and their prevention Practical examples of configuring demonstration interfaces of network components (router, switch, WiFi AP, firewall) Design of your own small computer network

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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/computer-networks