

SYLLABUS

SUBJECT: Networking technologies

TEACHER: Robert Pękala

COURSE DESCRIPTION:

The course is dedicated to Ethernet LAN technologies connected with the TCP/IP stack fundamental protocols. ISO/OSI model, fundamentals of the Ethernet wired technologies, theory of the internet protocol (IP v4, v6), theory of the TCP protocol, some aspects of the switched Ethernet technology, IP routing basics, implementation of the network security solutions in LAN. Practical exercises will cover: preparing of the wired Ethernet connections, IP v4 addressing techniques, IP v6 addressing, Ethernet switches configuring, creating and configuring hybrid networks, internetworking with the use routers, creating and managing extended network topologies, using typical network utilities.

LEARNING OUTCOMES:

A student should receive a basic theoretical knowledge and practical skills concerning to LAN technologies.

GRADING POLICY:

Lecture: Written test

Classes: Short written test before every classes, connected with suitable subject

TIMETABLE

Consultations: two hours per week

TEXTBOOK AND REQUIRED MATERIALS:

- Desmeules R.: *Implementing Cisco IP v6 (Sieci oparte na protokole IP v6)*, Mikom-Cisco Press, 2006r. (in Polish)
- Komar B.: *TCP/IP Network Administration (Administracja sieci TCP/IP)*, Helion 2000r. (in Polish)
- Odom W., Knott T.: *Networking Basics CCNA 1, companion guide*, Cisco Press 2006
- Tanenbaum A.: *Computer networks (Sieci komputerowe)*, Helion 2004r. (in Polish)

PREREQUISITES:

High school course in operating systems

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Date and lecturer signature