POZNAN UNIVERSITY OF TECHNOLOGY

EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

COURSE DESCRIPTION CARD - SYLLABUS

Course name
Computer Network [S1ETI1>SK]

Course

Field of study
Education in Technology and Informatics

Year/Semester
2/3

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
26

Laboratory classes
15

Other (e.g. online)
0

Tutorials
0

Projects/seminars
0

Number of credit points

4,00

Coordinators

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Lecturers

Prerequisites

Student starting this module should have basic knowledge regarding computer systems. Student should have skills that are necessary to acquire information from given sources of information. Student should understand the need to extend his/her competences

Course objective

empty

Course-related learning outcomes

empty

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

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Programme content

Lecture:
Basic knowledge about the construction and operation of computer networks.
Laboratory:
Simple issues related to the use and configuration of computer networks. Network traffic analysis.

Course topics

Lecture:
Types of networks. Network hardware and software. OSI and TCP/IP reference models.
Data transmission. Examples of communication systems.
Data link layer. Problems at the data link layer. Ethernet.
Network layer. Network layer services. Routing algorithms. Quality of the service.
The network layer in the Internet. IP protocol. Other network layer protocols.
Transport layer. Transport layer services and protocols.
Application layer. Domain Name System. World Wide Web.
Analysis of problems and network security.
Computer security. Elements of cryptography.
Laboratory:
TCP/IP diagnostic tools.
Configuration of the network connection.
DHCP server.
Network traffic analysis using Wireshark program.
NAT networks. ARP buffer poisoning simulation.

Teaching methods

Lectures: multimedia presentation
Labs: practical exercises, solving tasks

Bibliography

Basic
Additional

Breakdown of average student's workload

	Hours	ECTS
Total workload	0	0,00
Classes requiring direct contact with the teacher	0	0,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	0	0,00