



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:

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	103	4,00
Classes requiring direct contact with the teacher	48	2,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	30	1,00