

COURSE INFORMATION SHEET

University: Catholic University in Ružomberok	
Faculty: Faculty of Education	
Course code: KIN/In-BD207A/22	Course title: Computer Networks 1
Type and range of planned learning activities and teaching methods: Form of instruction: Lecture / Seminar Recommended study range: hours weekly: 2 / 2 hours per semester: 26 / 26 Teaching method: on-site	
Credits: 6	Working load: 150 hours
Recommended semester/trimester: 2.	
Level of study: I.	
Prerequisites:	
Requirements for passing the course: During the semester, the student demonstrates his theoretical knowledge in the areas of building and operating local and large-scale computer networks based on the TCP/IP protocol in the form of a presentation of knowledge and written tests. Final assessment: cumulative percentage gain from the written test (30%) obtained during the semester and the answers to the semester exam (70%). Subject evaluation: A – 100%-93% B – 92%-85% C – 84%-77% D – 76%-69% E – 68%-60% Fx – 59%- 0%	
Learning outcomes of the course: The aim of the course is to provide students with theoretical knowledge in the field of building and operating local and large-scale computer networks based on the TCP/IP protocol. Learning outcomes (knowledge, skills and competences): - The student will be able to define, explain and establish solutions to the basic rules in the field of building and operating local and large-scale computer networks based on the TCP/IP protocol, define the activity of active elements in a local and large-scale network, the activity of network services providing users with access to the Internet, the ISO model /OSI, TCP/IP protocol model, network topologies, network addressing, network protection. - He will have basic skills in creating an address plan. - Will be able to solve basic problems when working with LAN computer networks - Will be able to conceptually design simple LAN networks. Verification of the level of acquired knowledge, skills and competences: The verification is carried out on the basis of theoretical checks during the semester teaching of the subject and on the semester exam.	
Course contents: 1. Introduction to computer networks.	

2. Network classification, data security, modulation and coding.
3. Multiplexing, interconnection methods, transmission modes, management in the network.
4. Transmission media, LAN topology, LAN architectures.
5. Architectures Ethernet, Token, FDDI, Arcnet.
6. ISO-OSI model.
7. Connecting local networks, network devices.
8. Addressing in networks.
9. Protocols of higher layers.
10. ATM technology.
11. Standards in computer networks, network protection.
12. Other types of networks, development directions, applications and IoT devices connected via mobile networks.

Recommended or required literature:

VOLNER, R., PETRUŠKOVÁ, H. 2015. Computer networks. Ružomberok: Verbum, 260 p.
 HORÁK, J., KERŠLAGER, M. 2013. Computer networks for the novice administrator. Prague: Computer Press.
 JIROVSKÝ, V. 2001. Vadamecum network administrator, Grada, Prague.
 JENČO, M. Electronic study support for teaching the subject Computer networks 1, moodle.pf.ku.sk

Language of instruction:

Notes:

Course evaluation:

Assessed students in total: 13

A	B	C	D	E	FX
0.0	23.08	46.15	15.38	15.38	0.0

Name of lecturer(s): doc. Ing. Michal Jenčo, PhD.

Last modification: 25.07.2022

Supervisor(s):

People responsible for the delivery, development and quality of the study programme:

prof. PhDr. Ingrid Emmerová, PhD., PhDr. ThLic. Martin Taraj, PhD., doc. Ing. Igor Černák, PhD.