1.	**Field of study**	**Computer Science**
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2021/2022 (summer term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time

Module: Computer network technologies

Module code: W4-IN-S2-20-2-TSK

1. Number of the ECTS credits: 3

2. Learning outcomes of the module

code	description	learning outcomes of the programme	level of competence (scale 1-5)
M_001	Characterizes network devices, such as: network interface card, switch, router, host. Can describe issues connected with switching frames and routing packets.	K_W02 K_W03 K_W06	1 3 1
M_002	Understands the need to use layered network model OSI-7 for description of phenomena occurring in Computer networks. Understands divisions within TCP/IP stock of phenomena occurring in the Internet.	K_W03 K_W05 K_W06	2 2 2
M_003	Can join hosts in a local network using various transmission media using point-point topologies and joining into infrastructure. Tests advanced media and links.	K_U01 K_U03 K_U05 K_U10	1 1 1 1
M_004	Can configure router as a core layer device. Constructs a network comprising sub-nets of L3 layer. Designs vertical and horizontal cablings.	K_U01 K_U02 K_U03 K_U08	1 1 1 2

3. Module description

Description	Aim of the module is familiarizing with issues connected with designing, implementation and diagnostics of a local computer network. The module deals with issues connected with process of information transfer in three lowest layers of reference model OSI-7.

Prerequisites	

4. Assessment of the learning outcomes of the module			
code	**type**	**description**	**learning outcomes of the module**
W_001	Module credit	Questions from lecture subject matter.	M_001, M_002
W_002	Short tests.	Checking the level of understanding of issues concerning computer network development and routing.	M_001, M_004
W_003	Conversation during tasks crediting.	Checks the skill of generalizing knowledge acquired during tasks solving.	M_003, M_004

5. Forms of teaching						
code	**form of teaching**			**required hours of student's own work**		**assessment of the learning outcomes of the module**
	type	**description (including teaching methods)**	**number of hours**	**description**	**number of hours**	
Z_001	lecture	Content available in the form of multimedia transfer.	15	Preparing for credit.	15	W_001
Z_002	laboratory classes	Exercises referring to networks joining and LAN networks configuring.	30	Designing own networks with use of CISCO Packet Tracer.	30	W_002, W_003