University of Silesia in Katowice

1.	Field of study	Computer Science
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2020/2021 (summer term), 2021/2022 (winter term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	general academic
6.	Mode of study	part-time

Module: Computer network technologies

Module code: W4-IN-N2-20-2-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	haracterizes 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.	10	Preparing for credit.	20	W_001
Z_002	laboratory classes	Exercises referring to networks joining and LAN networks configuring.	20	Designing own networks with use of CISCO Packet Tracer.	40	W_002, W_003