University of Silesia in Katowice

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: Internet protocols

Module code: W4-INA-S2-20-F-PI

1. Number of the ECTS credits: 4

2. Learning outcomes of the module

code	description	learning outcomes of the programme	level of competence (scale 1-5)
M_001	The student understands the necessity to implement the particular internet protocols.	K_W03 K_W05 K_W06	3 1 3
M_002	The student characterises TCP/IP protocol stack and understands the need for standardisation of Internet layers and application operation.	K_K04 K_W05 K_W06 K_W07	3 1 3 1
M_003	The student characterises the need to use physical and logical addressing in LAN and WAN networks, understands the need for migration from IPv4 to IPv6 protocols, is aware of threats resulting from this migration, and can explain the necessity of tunnelling IPv6 to IPv4 in the transition period.	K_W03 K_W06	4 3
M_004	The student configures dynamic routing protocols.	K_U08 K_U10	2 1
M_005	The student presents the group with his configuration solutions.	K_K04	1

3. Module description

Description	The module aims at acquainting the students with the use and implementation of network protocols at the L3 and L4 layers of the OSI-7 model.
Prerequisites	

4. Assessment of the learning outcomes of the module

code	type	description	learning outcomes of the module
W_001	Lecture test	The test comprises the questions from the subjects of the lectures.	M_001, M_002, M_003
W_002	Tests	The tests check the level of understanding of issues concerning designing the computer network and routing protocols.	M_002, M_003
W_003	Conversation during tasks crediting.	Checks the skill o generalizing knowledge acquired during tasks solution.	M_004, M_005

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	The content is available as multimedia streaming.	15	The students prepare for the exam individually.	30	W_001, W_002
Z_002	laboratory classes	During the classes, the blackboard exercises refer to the network addressing and practical exercises refer to routers configuring, reports, and tests.	30	The students design their networks using CISCO Packet Tracer.	45	W_002, W_003