



Subject card

Subject name and code	Computer networks - laboratories, PG_00045323						
Field of study	Data Engineering						
Date of commencement of studies	October 2020	Academic year of realisation of subject				2022/2023	
Education level	first-cycle studies	Subject group				Optional subject group Subject group related to scientific research in the field of study	
Mode of study	Full-time studies	Mode of delivery				at the university	
Year of study	3	Language of instruction				Polish	
Semester of study	6	ECTS credits				2.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Department of Computer Communications -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		mgr inż. Jakub Grochowski				
	Teachers		mgr inż. Jakub Grochowski				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	15.0	0.0	0.0	15
	E-learning hours included: 0.0						
Computer Networks-laboratories - 2023 - Moodle ID: 26384 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=26384							
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	15		4.0		31.0	50
Subject objectives	Acquiring the skills to design, build and configure computer networks. Demonstration of skills to identify and analyze selected protocols and mechanisms of LAN and WAN networks						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[K6_W02] Knows and understands the standards of network management, architecture, technologies and services of telecommunications networks. Knows the main protocols of packet networks, understands the operation of local networks and network connection rules.		The student demonstrates knowledge of the elements included in the network (switches, routers)			[SW1] Assessment of factual knowledge	
	[K6_U02] designs, analyses correctness and creates functional specification of IT systems, selects appropriate measures, creates quality models, prepares and assesses their design documentation.		Student designs, builds and configures a computer network and analyzes the correctness of its work			[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools	
	[K6_U06] Independently solves complex engineering tasks using literature, materials and devices, prepares extensive documentation of the developed solution using appropriate description techniques.		Student is able to configure network devices and systems using switch and router software			[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools	

Subject contents	Lab. 1. Network Management 2. Virtual Local Area Networks 3. Static and Dynamic Routing 4. 802.11 wireless network configuration 5. IP Network Diagnostics 6. Network monitoring								
Prerequisites and co-requisites									
Assessment methods and criteria	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Subject passing criteria</th> <th style="width: 33%;">Passing threshold</th> <th style="width: 33%;">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td>lab.</td> <td>50.0%</td> <td>100.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	lab.	50.0%	100.0%
	Subject passing criteria	Passing threshold	Percentage of the final grade						
lab.	50.0%	100.0%							
Recommended reading	Basic literature	Scripts and didactic powers for specific laboratory exercises Nowicki K.: Monitorowanie i bezpieczeństwo sieci komputerowych, WN AM Szczecin, 2016							
	Supplementary literature	Nowicki K., Woźniak J.: Przewodowe i bezprzewodowe sieci LAN, OW PW 2002 Nowicki K.: Ethernet - sieci, mechanizmy, Infotech							
	eResources addresses								
Example issues/ example questions/ tasks being completed	Build a reliable network Build a secure network Build an efficient network								
Work placement	Not applicable								