GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Computer networks - laboratories, PG_00045323		
Field of study	Data Engineering		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2027/2028
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 -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	mgr inż. Jakub Grochowski	
	Teachers	mgr inż. Jakub Grochowski dr hab. inż. Artur Tomaszewski	

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						

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] demonstrates advanced preparation in methods and techniques for formulating and solving problems	The student demonstrates knowledge of the elements included in the network (switches, routers)	[SW1] Assessment of factual knowledge
	[K6_U06] acquires new knowledge, planning its own development in aiming at achieving defined goals	Student is able to configure network devices and systems using switch and router software	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
	[K6_U02] prepares and presents convincingly professional presentations of the results of undertaken activities, with their advanced interpretation	Student designs, builds and configures a computer network and analyzes the correctness of its work	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment

| Subject contents | Lab.

1. Network Management
2. Mechanisms of application communication
3. Static and Dynamic Routing
4. 802.11 wireless network configuration
5. IP Network Diagnostics

6. Network monitoring |
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Prerequisites and co-requisites	

Assessment methods and criteria	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	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
	Build a reliable network	
	Build a secure network	
	Build an efficient network	
Work placement	Not applicable	

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