



Subject card

Subject name and code	Computer networks - laboratories, PG_00045323						
Field of study	Data Engineering						
Date of commencement of studies	October 2023	Academic year of realisation of subject			2025/2026		
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 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] 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. Mechanisms of application communication 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"> <thead> <tr> <th data-bbox="453 367 794 398">Subject passing criteria</th> <th data-bbox="799 367 1141 398">Passing threshold</th> <th data-bbox="1145 367 1492 398">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="453 405 794 432">lab.</td> <td data-bbox="799 405 1141 432">50.0%</td> <td data-bbox="1145 405 1492 432">100.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	lab.	50.0%	100.0%			
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Example issues/ example questions/ tasks being completed	<p>Build a reliable network</p> <p>Build a secure network</p> <p>Build an efficient network</p>											
Work placement	Not applicable											

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