



Subject card

Subject name and code	Networked Mobile Technologies, PG_00063916						
Field of study	Informatics						
Date of commencement of studies	February 2026		Academic year of realisation of subject		2026/2027		
Education level	second-cycle studies		Subject group		Optional subject group Specialty 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	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		exam		
Conducting unit	Department of Geoinformatics -> Faculty of Electronics Telecommunications and Informatics -> Wydział Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Marcin Kulawiak				
	Teachers		dr hab. inż. Marcin Kulawiak dr inż. Marek Kulawiak				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	E-learning hours included: 0.0						
	eNauczanie source address: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=33425						
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	30		4.0		16.0	50
Subject objectives	The aim is to develop a computer engineer who has knowledge and skills in communication techniques used in devices mobilnych.Jest prepared to work effectively in development teams in IT companies and ICT as well as in education, where their knowledge and skills will be used with the principles of legal and ethical awareness, and the social problems of computerization.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K7_U12] is able, to an increased extent, to analyze the operation of components and systems related to the field of study, as well as to measure their parameters and study their technical characteristics, and to plan and carry out experiments related to the field of study, including computer simulations, interpret the obtained results and draw conclusions	The student knows and understands the structure and principles of mobile applications which use wireless communication	[SU4] Assessment of ability to use methods and tools
	[K7_W10] knows and understands, to an increased extent, the basic processes occurring in the life cycle of equipment, objects and technical systems, as well as methods of supporting processes and functions, specific to the field of study	The student knows and understands the current and historical operation rules of network solutions dedicated to mobile devices.	[SW3] Assessment of knowledge contained in written work and projects
	[K7_W03] knows and understands, to an increased extent, the construction and operating principles of components and systems related to the field of study, including theories, methods and complex relationships between them and selected specific issues - appropriate for the curriculum	The student knows and understands the structure and principles of mobile applications which use wireless communication.	[SW1] Assessment of factual knowledge
Subject contents	GSM network architecture Aspects of handling bluetooth connections in mobile devices Aspects of handling HTTP and HTTPS connections in mobile devices Connections using sockets on mobile devices Other standards for wireless connections used in mobile devices Calling network services on mobile devices Introduction to mobile websites Programming web applications for mobile devices Cloud computing in a mobile environment Other available network solutions for mobile platforms		
Prerequisites and co-requisites	Basics of Java, C++ and Javascript programming.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Laboratory	60.0%	50.0%
	Lecture	60.0%	50.0%
Recommended reading	Basic literature	Android Programming Guide	
	Supplementary literature	TCP/IP. Experts book.Ed II Autorzy: Karanjit S. Siyan , Tim Parker	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Creating a mobile application that uses Wi-Fi communication Creating a mobile application using the Bluetooth		
Work placement	Not applicable		

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