



Subject card

Subject name and code	Distributed Processing in Medical Applications, PG_00068236						
Field of study	Biomedical Engineering, Biomedical Engineering, Biomedical Engineering						
Date of commencement of studies	October 2026	Academic year of realisation of subject				2028/2029	
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				3.0	
Learning profile	general academic profile	Assessment form				exam	
Conducting unit	Department of Biomedical Engineering -> Faculty of Electronics Telecommunications and Informatics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. inż. Jacek Rumiński				
	Teachers		prof. dr hab. inż. Jacek Rumiński				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	0.0	30
	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	30		3.0		42.0	75
Subject objectives	The aim of the course is to prepare students to independently design and implement tasks related to data processing in a distributed environment for biomedical purposes using reliable data sources and frameworks.						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[K6_W04] knows and understands, to an advanced extent, the principles, methods and techniques of programming and the principles of computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study, and organisation of systems using computers or such devices		The student has knowledge of: - properties of distributed systems and basic architectures of distributed systems, - principles of creating and designing a distributed processing system for biomedical solutions, - distributed processing techniques, - techniques for building software packages that implement the process of handling network services (Web services).			[SW1] Assessment of factual knowledge	
	[K6_U04] can apply knowledge of programming methods and techniques as well as select and apply appropriate programming methods and tools in computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study		The student has acquired the skills of: - designing a distributed processing system and selecting the appropriate architecture, - building a distributed processing system, - designing network services dedicated to distributed processing, - using information technologies in the field of designing and implementing distributed processing systems for biomedical engineering problems, - using Java, Python and container environments.			[SU1] Assessment of task fulfilment	

