



## Subject card

Subject name and code	MSc Diploma Thesis I, PG_00053404						
Field of study	Biomedical Engineering, Biomedical Engineering, Biomedical Engineering						
Date of commencement of studies	February 2023		Academic year of realisation of subject		2023/2024		
Education level	second-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	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		4.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Biomedical Engineering -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Mariusz Kaczmarek				
	Teachers		dr hab. Marcin Gruszecki				
			dr inż. Adam Bujnowski				
			prof. dr hab. inż. Jerzy Wtorek				
			dr Michał Kucewicz				
			dr hab. inż. Piotr Szczuko				
			dr Brygida Mielewska				
			dr inż. Tomasz Kocejko				
			dr Tomasz Neumann				
			dr inż. Anna Węsierska				
			dr inż. Magdalena Mazur-Milecka				
			prof. dr hab. inż. Jacek Rumiński				
			dr inż. Grzegorz Jasiński				
			prof. dr hab. inż. Bożena Kostek				
			dr hab. inż. Grzegorz Lentka				
prof. dr hab. inż. Grzegorz Redlarski							
dr hab. inż. Mariusz Kaczmarek							
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	0.0	0.0	0
	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	0		30.0		70.0	100
Subject objectives	To familiarize students with the process of definition of the research problem, methods of its analysis, the method of evaluation of results and techniques for documenting the various stages of research						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K7_W09] Knows and understands, to an increased extent, the economic, legal and other conditions of various types of activities related to the given qualification, including the principles of protection of industrial property and copyright.	The student knows the rules of protection intellectual values. understands the impact of your actions on economics and environment in which operates.	[SW3] Assessment of knowledge contained in written work and projects [SW2] Assessment of knowledge contained in presentation
	[K7_U10] can individually plan and pursuit their own lifelong education and influence others in this aspect, also by means of advanced information and communication technologies (ICT), and communicate on specialist issues with diverse recipients, appropriately justify points of view, hold debates, present, assess and discuss different opinions and points of view, as well as use specialist terminology related to the field of study in communication	The student knows the basic techniques of data modeling, key standards for IT systems and equipment, medical security techniques, computer methods of supporting diagnostics, and TI used in various fields of health care.	[SU2] Assessment of ability to analyse information
	[K7_U08] while identifying and formulating engineering tasks specifications and solving these tasks, can:n- apply analytical, simulation and experimental methods,n- notice their systemic and non-technical aspects,n- make a preliminary economic assessment of suggested solutions and engineering workn	The student knows the basic data modeling techniques, key standards for information systems. The student knows the principles of intellectual property protection. Understands the impact of their activities on the economics and environment in which they operate.	[SU1] Assessment of task fulfilment
	[K7_K02] is ready to provide critical evaluation of received content and to acknowledge the importance of knowledge in solving cognitive and practical problems	The student knows and understands the principles of scientific work, research methods, and determine the conditions of their use	[SK5] Assessment of ability to solve problems that arise in practice
	[K7_K03] is ready to meet social obligations, inspire and organise activities for the social environment, initiate actions for the public interest, think and act in an entrepreneurial way	Is able to work in a group, identify basic problems in the work environment and propose methods to solve them.	[SK1] Assessment of group work skills [SK5] Assessment of ability to solve problems that arise in practice
Subject contents	Literature studies the issues under consideration. Choice, justification and development of research methods. Testing, calculations, analysis of the results, the project proposal. The implementation of the project. Comparative analysis, conclusions.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Master Thesis	60.0%	100.0%
Recommended reading	Basic literature	Depends on studied topics	
	Supplementary literature	Depends on studied topics	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		