



Subject card

Subject name and code	, PG_00066161						
Field of study	Technical Physics, Materials Engineering, Mathematics, Biomedical Engineering, Nanotechnology						
Date of commencement of studies	October 2024	Academic year of realisation of subject				2024/2025	
Education level	second-cycle studies	Subject group				Obligatory subject group in the field of study 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 None	
Semester of study	2	ECTS credits				3.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Institute of Nanotechnology and Materials Engineering -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Marek Chmielewski				
	Teachers		dr inż. Marek Chmielewski				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	40.0	0.0	40
	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	40		2.0		33.0	75
Subject objectives	Implementation of the topic of the selected research project whose purpose is to verify the hypothesis or research idea, in the case of an industrial project, process or product innovation.						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[K7_W101] is able to make an in-depth identification of key objects and phenomena related to the field of study, as well as theories that describe them and applicable analytical and design methods		The student uses modern and advanced research techniques to accomplish the declared tasks. He/she is able to identify the appropriate ways to carry out the task and solve the research problem. Appropriately uses his/her competencies by acting in a way to deepen his/her skills.			[SW2] Assessment of knowledge contained in presentation	
	[K7_U101] is able to formulate complex research problems and adopts appropriate methods, obtaining innovative solutions, cooperating with other people, both as a leader and a team member		The student integrates his activities in the field of teamwork, is able to define his role in the team, skillfully presents his achievements and conclusions in front of the other team members. He can synthetically divide the activities and adjust them to the specifics of the topic and the skills of the team members.			[SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment	
	[K7_K101] acknowledges the importance of knowledge related to the field of study in solving cognitive and practical problems, critically assessing the information obtained		The student uses own knowledge in a way that allows verification of the thesis, skillfully uses research techniques and presents the results of his work in an understandable way. Analyzes literature data and information obtained from other sources. Works effectively in the implementation of the task.			[SK4] Assessment of communication skills, including language correctness [SK3] Assessment of ability to organize work	
Subject contents	Agreed with the project supervisor						

Prerequisites and co-requisites	As recommended by the project supervisor		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	100	100.0%	100.0%
Recommended reading	Basic literature	Agreed with the project supervisor	
	Supplementary literature	Agreed with the project supervisor	
	eResources addresses	Adresy na platformie eNauczenie: Zespołowy projekt badawczy I - Moodle ID: 44086 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=44086">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=44086</a> Zespołowy projekt badawczy I 2025 - Moodle ID: 44803 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=44803">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=44803</a>	
Example issues/ example questions/ tasks being completed	Specified by the project supervisor or reporting institution		
Work placement	Not applicable		

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