



Subject card

Subject name and code	, PG_00058866						
Field of study	Nanotechnology, Nanotechnology (joint Master's double-degree program)						
Date of commencement of studies	October 2023	Academic year of realisation of subject				2024/2025	
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	2	Language of instruction				English	
Semester of study	4	ECTS credits				1.0	
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	prof. dr hab. inż. Tomasz Klimczuk					
	Teachers	prof. dr hab. inż. Tomasz Klimczuk					
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	15.0	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	2.0		8.0	25	
Subject objectives	Preparation of the Student for undertaking and solving scientific and technical problems as well as for elaborating complete and reliable research reports.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K7_U10	Student has the ability to prepare a report in English on the results of their own research and an oral presentation showing the progress achieved at each stage of the project thesis.			[SU5] Assessment of ability to present the results of task [SU3] Assessment of ability to use knowledge gained from the subject		
	K7_W09	Student has an extensive knowledge of professional English terminology in the field of physics, materials engineering and nanotechnology.			[SW3] Assessment of knowledge contained in written work and projects		
	K7_U01	Student is able to analyze the problem posed in the diploma project and is able to work on a proposal for its solution/ implementation, based on independently obtained and developed information from literature, databases and other available sources (available in English).			[SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment		
	K7_W03	Student acquires general knowledge about the current trends, directions of development and the newest discoveries in the field of nanotechnology and materials engineering.			[SW1] Assessment of factual knowledge		

Subject contents	<p>Implementation of research tasks related to the selected topic of the diploma project in the team: student-project supervisor.</p> <p>Preparation of the MSc thesis manuscript in accordance with suitable standards and general guidelines.</p>		
Prerequisites and co-requisites	Completed and passed all courses from semesters 1-3.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Preparation and presentation of the MSc thesis	50.0%	50.0%
	Realization of laboratory tasks related to the diploma project	100.0%	50.0%
Recommended reading	Basic literature		<p>[1] Nicholas Walliman, Research Methods, The Basics, Taylor & Francis Group, London and New York, 2011</p> <p>[2] Hugh G. Gauch Jr., Scientific Methods in Brief, Cambridge University Press, 2012</p>
	Supplementary literature		<p>[1] Guidelines for Authors of diploma thesis and diploma projects for higher education studies at Gdańsk University of Technology written in polish or english.</p> <p>[2] Scientific literature and specialist reports related to the diploma project</p>
	eResources addresses		Adresy na platformie eNauczenie:
Example issues/ example questions/ tasks being completed	<p>Cobalt (III) oxide particles and their redox reactions. Quantum calculations.</p> <p>Silicon-based precursors in parylene CVD functionalization. Quantum calculations.</p> <p>Iron (III) oxides in ionic liquids environment and the redox reactions. Quantum calculations.</p>		
Work placement	Not applicable		

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