



## 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 2022		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	2		Language of instruction		English		
Semester of study	4		ECTS credits		1.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Instytut Nanotechnologii i Inżynierii Materiałowej -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Agnieszka Witkowska				
	Teachers		prof. dr hab. inż. Jarosław Rybicki				
			dr hab. inż. Agnieszka Witkowska				
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	The Student is able to prepare and present a diploma presentation and actively participate in scientific discussion.						
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.		[SU3] Assessment of ability to use knowledge gained from the subject [SU5] Assessment of ability to present the results of task		
	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		
	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).		[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information		

Subject contents	<p>1. Main elements of public/oral presentation of the results of scientific work.</p> <p>2. The main rules of understandable information transfer and the most common mistakes that should be avoided when preparing and presenting seminars.</p> <p>3. The main elements of the diploma exam.</p> <p>4. Preparation of the MSc diploma presentation and public/oral presentation of the diploma seminar.</p> <p>5. Presentation of typical questions that may appear on the MSc exam.</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Preparing and presentation of diploma seminar	100.0%	80.0%
	Classes and consultations participation	50.0%	20.0%
Recommended reading	Basic literature		<p>[1] Liam Lusk 2012 Presentation Skills: How To Make A Great Presentation, Published by L.Lusk, Kindle Edition</p> <p>[2] Nicholas Walliman 2011 Research Methods, The Basics, Taylor &amp; Francis Group, London and New York</p>
	Supplementary literature		Scientific literature and specialist reports related to the diploma project.
	eResources addresses		<p>Adresy na platformie eNauczanie:</p> <p>Diploma seminar - 2024 - Moodle ID: 36144</p> <p><a href="https://enauzanie.pg.edu.pl/moodle/course/view.php?id=36144">https://enauzanie.pg.edu.pl/moodle/course/view.php?id=36144</a></p>
Example issues/ example questions/ tasks being completed	<p>1. Optimization of dealloying process in the formation of porous nanoparticles of gold</p> <p>2. Non-stoichiometric electrodes with exsolved catalytically active oxide nanoparticles</p> <p>3. Optimization of the fuel cell manufacturing process through the use of 3D printing</p> <p>4. Quantum-chemical investigations of the generations of reactive oxygen species by titanium dioxide</p>		
Work placement	Not applicable		