



Subject card

Subject name and code	, PG_00055422						
Field of study	Nanotechnology						
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		1.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Zakład Elektrochemii i Fizykochemii Powierzchni -> Instytut Nanotechnologii i Inżynierii Materiałowej -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Jacek Ryl				
	Teachers		dr hab. inż. Jacek Ryl				
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 for the performance and defense of the thesis. Acquainting with elements of scientific methodology.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W71] has general knowledge in humanistic, social, economic or legal sciences, including their fundamentals and applications		General knowledge of related scientific disciplines (chemistry, physics, nanotechnology) and awareness of their directions development		[SW1] Assessment of factual knowledge		
	[K7_K71] is able to explain the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment		The ability to communicate the progress of the completion of the diploma thesis, the need to undertake research issues and the selection of hypotheses.		[SK2] Assessment of progress of work		
	K7_U01		Ability to use data bases, scientific literature and self-extraction requests		[SU1] Assessment of task fulfilment		
Subject contents	Analysis of the faculty diploma regulations.Elements of the methodology of preparing the thesis: selection of the subject and topic of the thesis, work schedulethesis, analysis of the state of knowledge in the subject of the diploma, literature review, work layout, main chapters,purpose of the work, conclusions, references, cost estimate of experimental research, editorial elements of the work: text, results calculation, charts, measurement errors.Presentation of the general subject of the work, literature review.Discussion of the results of own research. Presentation of the main results of the thesis.Critical analysis of the thesis text.Elements of the public presentation of work results. Preparation of the presentation for the defense of the thesis.Presentation of typical questions for the defense of a thesis						
Prerequisites and co-requisites	Passed subjects from semesters 1-2.						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	seminar attendance	50.0%	30.0%
	presentation of the scope of the work	100.0%	20.0%
	presentation of own results	100.0%	50.0%
Recommended reading	Basic literature	Scientific Method in Practice. Hugh G. Gauch Jr. Cambridge University Press (December 23, 2002). ISBN-13: 978-0521017084	
	Supplementary literature	Scientific literature, articles in JCR journals on the subject of thesis	
	eResources addresses	Podstawowe https://enauczanie.pg.edu.pl/moodle/course/view.php?id=27124 - kurs enauczanie Adresy na platformie eNauczanie: Seminarium Dyplomowe - Moodle ID: 27154 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=27154	
Example issues/ example questions/ tasks being completed	What is the purpose of the research being conducted?What are the research hypotheses?		
Work placement	Not applicable		