GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00059150		
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	2	Language of instruction	Polish
Semester of study	3	ECTS credits	24.0
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	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	120.0	0.0	120
	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	120	30.0	450.0	600

Subject objectives	Preparation of the Student for undertaking and solving scientific and technical problems as well as for elaborating complete and reliable research reports. Diploma project implementation and preparation of the diploma thesis.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K7_U05	The student realizing a diploma project of an experimental or experimental-computational nature has the ability to plan and perform research, analyze obtained data, correctly present and interpret results and to formulate physically correct conclusions.	[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
K7_K04	The student starts working on the diploma project as early as on the first semester of study and implementing it by the end of the last semester gains experience and skills related to planning and organizing systematic work on a long-term scientific-technical problem/project.	[SK2] Assessment of progress of work [SK3] Assessment of ability to organize work
K7_U01	The student is able to analyze the problem defined in the diploma project and is able to prepare proposals for its solution/ realization, based on self-obtained and compiled information from literature, databases and other available sources (available mainly in English).	[SU2] Assessment of ability to analyse information
K7_U10	The student has the ability to prepare in English a report on the results of own research and oralpresentation showing the progress achieved at various stages of the diploma project realization.	[SU5] Assessment of ability to present the results of task

Subject contents

Implementation of research tasks related to the selected topic of the diploma project in the team: student-project supervisor.

Preparation of the MSc thesis manuscript in accordance with suitable standards and general guidelines.

Prerequisites and co-requisites

Completed and passed all courses from semesters 1 and 2.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Realization of tasks related to the diploma project	100.0%	50.0%
Preparation and presentation of the MSc thesis	50.0%	50.0%

Recommended reading

Basic literature	[1] Nicholas Walliman, Research Methods, The Basics, Taylor & Francis Group, London and New York, 2011 [2] Hugh G. Gauch Jr., Scientific Methods in Brief, Cambridge University Press, 2012 [3] Scientific literature and specialist reports related to the diploma project.
Supplementary literature	[1] Guidelines for Authors of diploma thesis and diploma projects for higher education studies at Gdańsk University of Technology written in polish and english. [2] Scientific literature and specialist reports related to the diploma project.
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

Example topics of diploma theses:

- Performance characteristics of ground tire rubber composites with carbon nanofillers

- Tuning of in vitro dissolution of bioactive glasses by introducing magnesium and the nanocrystallization process

Work placement

Not applicable