GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Diploma seminar , PG_00071038		
Field of study	Nanotechnology		
Date of commencement of studies	February 2027	Academic year of realisation of subject	2027/2028
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	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Institute of Nanotechnology and Materials Engineering -> Faculty of Applied Physics and Mathematics -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Agnieszka Witkowska	
	Teachers	dr hab. inż. Agnieszka Witkowska	

Lesson types

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_W03] has knowledge of current development trends and the latest discoveries in the fields of physics, chemistry, technology, and applications of nanostructures	By preparing a diploma presentation, participating in the presentations of group members and discussions on the presented content, the student gains knowledge about current developments and the latest discoveries in the field of nanotechnology and materials engineering.	[SW2] Assessment of knowledge contained in presentation
[K7_U01] is able to formulate hypotheses, plan and conduct experimental research, critically analyze results, verify hypotheses, draw conclusions, and formulate well-founded opinions within nanotechnology and related physical and natural sciences. Recognizes economic and non-technical aspects of the activities performed	The student is able to analyze the problem posed in the diploma project and to develop a concept for its solution/implementation based on independently obtained and developed information from the literature, databases and other available sources (available in English).	[SU2] Assessment of ability to analyse information
[K7_U07] has advanced skills in disseminating knowledge and communicating the results of own research in the form of oral presentations or written works in Polish and English	The student has the ability to prepare a report in English on the results of his/her own research and an oral presentation showing the progress achieved at each stage of the diploma project.	[SU5] Assessment of ability to present the results of task

<table>
<tr><td>Subject contents</td><td>Course content – seminar
1. Main elements of public/oral presentation of the results of scientific work.

2. The main rules of understandable information transfer and the most common mistakes that should be avoided when preparing and presenting seminars.

3. The main elements of the diploma exam.

4. Preparation of the MSc diploma presentation and public/oral presentation of the diploma seminar.

5. Presentation of typical questions that may appear on the MSc exam.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Classes and consultations participation</td><td>50.0%</td><td>20.0%</td></tr>
<tr><td>Preparing and presentation of diploma seminar</td><td>100.0%</td><td>80.0%</td></tr>
</table>
</td></tr>
<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>[1] Liam Lusk 2012 Presentation Skills: How To Make A Great Presentation, Published by L.Lusk, Kindle Edition

[2] Nicholas Walliman 2011 Research Methods, The Basics, Taylor & Francis Group, London and New York</td></tr>
<tr><td>Supplementary literature</td><td>Scientific literature and specialist reports related to the diploma project.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
</table>
</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>1. Optimization of the process of porous gold nanoparticles formation

2. Non-stoichiometric electrodes with exsolved catalytically active oxide nanoparticles

3. Optimization of the fuel cell manufacturing process through the use of 3D printing

4. Quantum-chemical investigations of the generations of reactive oxygen species by titanium dioxide

5. Removal of heavy metal ions from wastewater using regenerable capsules based on nanostructured MgCaVO sorbents

6. Implementation of a hybrid MD+CVHD method and its application in studying the chemical vapor deposition of graphene</td></tr>
<tr><td>Practical activites within the subject</td><td>Not applicable</td></tr>
</table>

Document generated electronically. Does not require a seal or signature.