GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	DIPLOMA LABORATORY II, PG_00064314		
Field of study	Chemical Technology		
Date of commencement of studies	February 2025	Academic year of realisation of subject	2025/2026
Education level	second-cycle studies	Subject group	
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	7.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Polymer Technology -> Faculty of Chemistry -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Maciej Sienkiewicz	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	75.0	0.0	0.0	75

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	75	15.0	85.0	175

Subject objectives

The aim of the course is to conduct research work as part of a master's thesis, develop the obtained results, and conduct a preliminary analysis. As part of the course, students conduct research in a selected area of polymer chemistry and technology.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U07] takes into account ethical issues and regulations in research planning and product and process design	The student responsibly carries out research work within the scope of the undertaken research topic, taking into account all ethical regulations related to it.	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information
[K7_U02] carries out experiments using properly selected techniques and apparatus, taking advantage of new developments in technology and related fields	The student conducts research using appropriately selected techniques and methods. The student understands the principles of using scientific equipment and industrial machinery necessary for the completion of a thesis.	[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools
[K7_W06] integrates knowledge from different disciplines, principles of intellectual property protection and patent law, relevant for appropriate interpretation and application in scientific, sustainable economic activities	Students combine knowledge from various fields to conduct research and analyze the obtained results. Students design materials/ products while taking into account the principles of intellectual property protection and patent law.	[SW3] Assessment of knowledge contained in written work and projects

Subject contents

Course content – laboratory
- Selection of research methods and techniques appropriate for the research topic being pursued
- Preparation of materials and characterization of their properties
- Reporting on completed research

Prerequisites and co-requisites

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>work in a laboratory and operate scientific apparatus, machines and devices</td><td>100.0%</td><td>60.0%</td></tr>
<tr><td>progress reports, reports with research results and their analysis</td><td>100.0%</td><td>40.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>• J.F. Rabek: Współczesna wiedza o polimerach. Tom 1: Budowa strukturalna polimerów i materiały badawcze, PWN, Warszawa 2017
• J.F. Rabek: Współczesna wiedza o polimerach. Tom 2: Polimery naturalne i syntetyczne, otrzymywanie i zastosowania, PWN, Warszawa 2017
• Scientific literature related to the topic of the thesis</td></tr>
<tr><td>Supplementary literature</td><td>Additional literature, industry standards, procedures, and instructions as directed by the thesis supervisor</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">• Characterization of the chemical structure of materials using Fourier transform infrared spectroscopy
• Characterization of the microstructure of materials using optical microscopy/scanning electron microscopy
• Conducting a static tensile test on the obtained materials, Shore hardness measurements
• Report on the conducted research and analysis of the obtained results</td></tr>
<tr><td>Practical activites within the subject</td><td colspan="2">Not applicable</td></tr>
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