GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	, PG_00057783		
Field of study	Green Technologies		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2025/2026
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study 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	7.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Organic Chemistry -> Faculty of Chemistry		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Dariusz Witt	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	45.0	30.0	0.0	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	10.0	90.0	175

Subject objectives

The structure of organic compounds is determined and classified by student. The mechanism of organic compounds formation and transformation is described by student. The students are able to compare and predict
reactivity of organic compounds. The course of reaction and transformation of organic compounds are elucidated
by students. The knowledge of reactions mechanism reflected in optimal transformation is appreciated by students. The theory is combined with practical synthesis of organic compounds.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U05] can formulate and solve engineering tasks analytical methods, simulation as well as experimental, able to apply knowledge of basic physics and mathematics to analyze the results of experiments, is able to analyze and assess existing technical solutions	can formulate and solve engineering tasks related to organic chemistry	[SU1] Assessment of task fulfilment [SU3] Assessment of ability to use knowledge gained from the subject
[K6_U01] is able to obtain information from literature, databases and other sources, is able to integrate the information obtained, to make their interpretation, as well as draw conclusions and formulate and justify opinions, take part in the discussion	Student is able to gather information from chemical literature. The information is used to explain and understand scientific problems.	[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU1] Assessment of task fulfilment
[K6_W02] has a basic knowledge of chemistry including general chemistry, inorganic, organic, physical, analytical, including the knowledge necessary to describe and understand the phenomena and chemical processes occurring in the environment; measurement and the determination of the parameters of these processes.	Student has got a knowledge of chemical transformations and basic methods of purification for organic compounds.	[SW1] Assessment of factual knowledge

Subject contents

Basic purification techniques for organic compounds. The synthesis of selected solid and liquid compounds.

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="3"></td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="3"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>The synthesis of 4 compounds</td><td>60.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td colspan="2">R.T. Morrison, R.N. Boyd "Organic Chemistry"

Vogel, "Practical Organic Chemistry"</td></tr>
<tr><td>Supplementary literature</td><td colspan="2">R.T. Morrison, R.N. Boyd "Organic Chemistry"

Vogel, "Practical Organic Chemistry"</td></tr>
<tr><td>eResources addresses</td><td colspan="2">Adresy na platformie eNauczanie:</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="3">1. Present the basic methods for purification of solid compounds.

2. . Present the basic methods for purification of liquid compounds.

3. What is the solid phase extraction?</td></tr>
<tr><td>Work placement</td><td colspan="3">Not applicable</td></tr>
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