University of Gdańsk

Subject card

Subject name and code	Organic Chemistry, PG_00188281		
Field of study	Chemia organiczna (Ćw.laboratoryjne)		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Bachelor's 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	1	Language of instruction	Polish POLISH
Semester of study	2	ECTS credits	2.0
Learning profile	academic	Assessment form	credit
Conducting unit	Laboratory of Carbohydrate Chemistry -> Department of Organic Chemistry -> Faculty of Chemistry -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Barbara Dmochowska	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	30.0	0.0	0.0	30

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	30	5.0	15.0	50

Subject objectives

Practical acquisition and improvement of skills in working in a chemical laboratory, determination of the physicochemical properties of organic compounds, determination of the purity of compounds using chromatographic methods, analysis and identification of selected classes of organic compounds by classical chemical analysis.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[AKRL3_K01] The graduate is ready to critically evaluate their own knowledge, understand its importance for solving cognitive and practical problems, and to seek expert opinions when necessary.	The graduate understands the need for continuous learning and updating knowledge in the field of organic chemistry and related disciplines. They are aware of their own limitations and know when to seek advice from experts.	[SK8] obserwacja samodzielnej lub zespołowej pracy studenta
[AKRL3_U02] The graduate can plan and organize individual and team work and collaborate with others in team projects (including interdisciplinary teams).	The graduate describes chemical facts and processes and, on this basis, is able to plan and organize both individual and team work.	[SU6] demonstracja umiejętności praktycznych
[AKRL3_K06] The graduate is ready to follow occupational health and safety regulations in the laboratory and care for the safety of themselves and others.	The graduate has been trained in health and safety regulations and therefore understands and follows the principles and procedures of safe work in laboratories.	[SK6] demonstracja umiejętności praktycznych
[AKRL3_U09] The graduate is able to independently plan and implement their professional development and lifelong learning.	The graduate has the ability to plan their own ideas and provide appropriate argumentation in the context of selected theoretical, practical, and professional perspectives.	[SU6] demonstracja umiejętności praktycznych
[AKRL3_W10] The graduate knows and understands the principles of safe work in chemical and biological laboratories, including procedures for handling hazardous and infectious materials.	The graduate has been trained in the principles and procedures of safe work and therefore understands and follows the rules and procedures of safe practice in chemical and biological laboratories. They are aware of the proper disposal of hazardous and infectious compounds.	[SW5] realizacja zadania problemowego

Subject contents

1. Separation of two or three organic compounds by extraction.
2. Identification of organic compounds using thin-layer chromatography (TLC).
3. Purification of an organic compound by crystallization.
4. Separation of two organic compounds by distillation.
5. Qualitative chemical analysis of selected organic compounds.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
	51.0%	100.0%

Recommended reading

Basic literature	Kupryszewski G., Sobocińska M., Walczyna R. 1988. Podstawy preparatyki związków organicznych. Wyd. Gdańskie, Gdańsk. Walczyna R., Sokołowski J., Kupryszewski G. 1996. Analiza związków organicznych. Wyd. UG, Gdańsk
Supplementary literature	Lecturer will indicate additional literature on an ongoing basis.
eResources addresses	

Example issues/ example questions/ tasks being completed

1. Explain the principle of liquid-liquid extraction and provide an example of its application in the analysis of drug traces.
2. How does the choice of solvent affect the effectiveness of crystallization?
3. What type of distillation can be used in the examination of samples (e.g., alcohol) secured at a crime scene?

Work placement

Not applicable

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