GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Preparation of Organic Compounds, PG_00060869		
Field of study	Preparatyka związków organicznych		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2027/2028
Education level	first-cycle studies	Subject group	Obligatory subject group in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	5	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Organic Chemistry -> Faculty of Chemistry -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Monika Gensicka-Kowalewska	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	60.0	0.0	0.0	60

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	60	5.0	55.0	120

Subject objectives

Students should know, understand, and use basic methods and techniques used in synthesis, such as extraction, simple distillation, reduced-pressure distillation, steam distillation, and crystallization. They should be able to plan the synthesis and ensure appropriate reaction conditions (maintain anhydrous conditions, prepare appropriate baths to maintain the appropriate reaction temperature, etc.).

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_K02] is aware of the responsibility for his/her work and is ready to work in a team and share responsibility for common tasks.	Student understands and adheres to the health and safety regulations in force in the laboratory. They are aware of the importance of behaving in a professional manner.	[SK4] Ocena umiejętności komunikacji, w tym poprawności językowej
[K6_U03] Uses chemical knowledge to design compounds, perform physicochemical and analytical measurements, and obtain appropriate sources of information.	Student is able to plan the synthesis of organic compounds based on acquired knowledge of organic chemistry. Student is able to plan his or her own learning and is able to use information sources.	[SU3] Ocena umiejętności wykorzystania wiedzy uzyskanej w ramach przedmiotu [SU2] Ocena umiejętności analizy informacji
[K6_W02] Possesses the chemical knowledge necessary to synthesize, analyze and evaluate the properties of compounds and processes used in chemical technology.	Student has basic knowledge of organic chemistry, knows the basic physical and chemical properties of selected groups of organic compounds, and is able to describe processes used in organic technology.	[SW1] Ocena wiedzy faktograficznej

Subject contents

Course content – laboratory
Single- and multi-step syntheses of selected preparations belonging to various classes of organic compounds.

Prerequisites and co-requisites

Completed classes in Organic Chemistry semester III and IV

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Entry tests and point assessments for individual preparations	60.0%	100.0%

Recommended reading	Basic literature	R. T. Morison; R. N. Boyd; Chemia Organiczna, Wydawnictwo naukowe PWN, Warszawa 1996. J. McMurry Chemia Organiczna, Wydawnictwo naukowe PWN, Warszawa 2000. J. D. Caserio, M. C. Roberts, CHEMIA ORGANICZNA, PWN Warszawa, 1969. K. Dzierzbicka, G. Cholewiński, J. Rachoń, Chemia Organiczna dla Opornych, Wydawnictwo PG, Gdańsk 2013
	Supplementary literature	J. March Chemia Organiczna- reakcje , mechanizmy , budowa. Wydawnictwo Naukowo Techniczne , Warszawa 1975. J. Gawroński, K. Gawrońska, K. Kacprzak, M. Kwit WSPÓŁCZESNA SYNTEZA ORGANICZNA, WN PWN Warszawa 2004. J. March CHEMIA ORGANICZNA - Reakcje, mechanizmy, budowa, WNT Warszawa 1975. H. O. House NOWOCZESNE REAKCJE SYNTEZY ORGANICZNEJ, PWN Warszawa 1979. T. W. G. Solomons ORGANIC CHEMISTRY - 6th ed, John Wiley & Sons, Inc. New York, 1996.
	eResources addresses	
Example issues/ example questions/ tasks being completed	Health and safety regulations in a chemical laboratory. Stoichiometric calculations of chemical reactions, conversion of concentrations, preparation of solutions. Crystallization, distillation, extraction. Acid-base properties of organic and inorganic compounds. Chemical properties of basic groups of organic compounds. Techniques for conducting chemical reactions.	
Practical activites within the subject	Not applicable	

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