GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Organic chemistry, PG_00060851		
Field of study	Chemical Technology		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2024/2025
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	Polish
Semester of study	3	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Organic Chemistry -> Faculty of Chemistry		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Magdalena Śliwka-Kaszyńska	
	Teachers	dr hab. Magdalena Śliwka-Kaszyńska	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	30.0	0.0	0.0	0.0	45

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	45	10.0	65.0	120

Subject objectives

Knowledge of the structure, physicochemical properties and reactivity of organic compounds.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U11] individually plans and implements his/her own learning	The student is able to independently plan and implement his/her own learning.	[SU3] Assessment of ability to use knowledge gained from the subject
[K6_W02] has knowledge of inorganic, organic, physical and analytical chemistry useful for obtaining selected groups of compounds, determining their physical and chemical properties allowing for their quantitative and qualitative analysis, making measurements and determining the parameters of chemical reactions, phenomena and processes occurring in chemical technology	The student is able to use knowledge of inorganic, organic, physical and analytical chemistry to obtain specific chemical compounds and to determine their physicochemical properties. The student is able to perform quantitative and qualitative analysis, make appropriate measurements and determine the parameters of chemical processes occurring in the chemical technology.	[SW3] Assessment of knowledge contained in written work and projects
[K6_U03] is able to apply knowledge of inorganic, organic, physical and analytical chemistry and identify appropriate sources of information to design and synthesize simple chemical compounds, carry out basic physicochemical and analytical measurements	The student draws correct structural formulas of organic compounds. The student recognizes the structures of organic compounds. The student has knowledge of the nomenclature of organic compounds. The student explains the relationship between the structure of an organic compound and its reactivity. The student identifies atomic and molecular orbitals.	[SU3] Assessment of ability to use knowledge gained from the subject

Subject contents	Alkanes, Cycloalkanes Reactivity and Stereochemistry of Alkanes and Cycloalkanes Nucleophilic Substitution Reactions Elimination Reactions Alkenes, Alkene Reactivity Alkynes, Alkyne Reactivity Conjugated Multiple Bond Systems Aromatic Compounds, Electrophilic Substitution and Nucleophilic Substitution Reactions Alcohols, Ethers, Epoxides	
Prerequisites and co-requisites	Basic topics in inorganic and physical chemistry.	
Assessment methods and criteria	Subject passing criteria: 3 written tests Passing threshold: 60.0% Percentage of the final grade: 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.
	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	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Draw the chemical structure of the following hydrocarbons: 6-isopropyl-2,3-dimethylnonane, cyclobutylcyclobutane, 4-tert-butyl-3-methylheptane, (2,2-dimethylpropyl)cyclohexane, 4-isobutyl-1,1-dimethylcyclohexane, pentacosane, sec-butylcycloheptane, 10-(1-methylpentyl)pentacosane	
Work placement	Not applicable	

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