



Subject card

Subject name and code	, PG_00037557						
Field of study	Green Technologies						
Date of commencement of studies	October 2021	Academic year of realisation of subject			2022/2023		
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	2	Language of instruction			English		
Semester of study	3	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		prof. dr hab. inż. Dariusz Witt				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	45.0	30.0	15.0	0.0	0.0	90
	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	90		5.0		80.0	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_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 a knowledge of preparation and reactivity of organic compounds. Student is able to predict reactivity and transformations of organic compounds based on their structure.		[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects		
	[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 lectures and literature. Based on that information the reactivity and properties of organic compounds can be predicted.		[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools		
Subject contents	Preparation and reactivity of: Alkanes and Alkenes. Alkynes and Arenes, Alcohols, Phenols and Ethers, Aldehydes and Ketones, Carbohydrates and Carboxylic Acids, Derivatives of Carboxylic Acids, Amines, Aminoacids and peptides, Nucleic Acids and Pesticides.						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	the yield of synthesis, report		60.0%		33.0%		
	4 tests during exercises		60.0%		33.0%		
	3 tests during lectures		60.0%		34.0%		

Recommended reading	Basic literature	1. R.T. Morrison, R.N. Boyd, Organic Chemistry. 2. J. McMurry, Organic Chemistry. 3. F. A. Carey, Organic Chemistry, McGraw-Hill, Inc. 2nd. ed., New York 1992. 4. T.W. Graham Salomons, Fundamentals of organic chemistry, John Wiley & Sons, New York, 1990.
	Supplementary literature	not applicable
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	