



## Subject card

Subject name and code	, PG_00037557						
Field of study	Green Technologies						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2021/2022		
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 dr hab. inż. Grzegorz Cholewiński					
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 Adresy na platformie eNauczanie:						
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_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.			[SU4] Assessment of ability to use methods and tools [SU2] Assessment of ability to analyse information [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 a knowledge of preparation and reactivity of organic compounds. Student is able to predict reactivity and transformations of organic compounds based on their structure.			[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge		
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
	3 tests during lectures	60.0%	34.0%
	4 tests during exercises	60.0%	33.0%
	the yield of synthesis, report	60.0%	33.0%
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		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		