



## Subject card

Subject name and code	Chemistry of Natural Products, PG_00037408						
Field of study	Biotechnology						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2022/2023		
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	3	Language of instruction			Polish		
Semester of study	5	ECTS credits			2.0		
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	prof. dr hab. inż. Krystyna Dzierzbicka					
	Teachers	prof. dr hab. inż. Krystyna Dzierzbicka					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	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	2.0	18.0	50		
Subject objectives	Discussion of individual groups of natural compounds and methods for their preparation.  Student identifies separate class of natural compounds.  Student draws a correct structural formulas of natural compounds and presented method of their synthesis.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K6_W03	the student has knowledge of the properties of natural compounds and the methods of obtaining them			[SW1] Assessment of factual knowledge		
	K6_U02	the student is able to apply the knowledge of organic chemistry to the synthesis of natural compounds			[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject		

Subject contents	1. Amino acids  2. Peptides  3. Proteins 4. Saccharides  5. Nucleic acids  6. Lipids 7. Alkaloids 8. Steroids 9. Terpenoids 10. Pheromones								
Prerequisites and co-requisites	Podstawy chemii organicznej.								
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="456 658 798 689">Subject passing criteria</th> <th data-bbox="802 658 1142 689">Passing threshold</th> <th data-bbox="1147 658 1469 689">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="456 696 798 752">Collecting 60% of the points from three current lecture colloquia.</td> <td data-bbox="802 696 1142 752">60.0%</td> <td data-bbox="1147 696 1469 752">100.0%</td> </tr> </tbody> </table>	Subject passing criteria	Passing threshold	Percentage of the final grade	Collecting 60% of the points from three current lecture colloquia.	60.0%	100.0%		
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Collecting 60% of the points from three current lecture colloquia.	60.0%	100.0%							
Recommended reading	Basic literature  Supplementary literature  eResources addresses	1. A. Kołodziejczyk, Naturalne Związki Organiczne, PWN, Warszawa 2013. 2. L. Stryer, Biochemia", PWN, Warszawa, 1997. 3. Textbooks selected by the student on the given topics.	Textbooks selected by the student on the given topics.						
Example issues/ example questions/ tasks being completed	1. Give an example of the synthesis of any nucleotide.  2. Give two methods for determining the C-terminal amino acid in a peptide.  3. Suggest a method for synthesizing the AG dipeptide.  4. Present the methods of synthesizing glycosides.  5. What is the phenomenon of mutarotation?								
Work placement	Not applicable								