

Subject card

Subject name and code	Organic chemistry, PG_00154392						
Field of study	Biology						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's 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	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		3.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Laboratory of Carbohydrate Chemistry -> Department of Organic Chemistry -> Faculty of Chemistry -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Janusz Madaj				
	Teachers		dr hab. Janusz Madaj mgr Marta Kalińska prof. dr hab. Beata Liberek mgr Grzegorz Detlaff dr Przemysław Karpowicz				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	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		6.0		39.0	75
Subject objectives	presenting students with basic issues regarding organic chemistry familiarizing students with the basic types of organic compounds and their basic biological role introducing students to the basics of spectroscopy learning the basics of independently conducting chemical experiments						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLL3_W17] The graduate is familiar with the principles of safety and hygiene at work and with the principles of savoir-vivre in social and professional life	written works, final tests (the student knows laboratory techniques and the principles of using research equipment and the basics of its operation)	[SW5] implementation of a problem task
	[BIOLL3_W13] The graduate knows and understands the principles of evaluating processes and phenomena using physical and/or chemical measurements	written works, final tests (the student knows laboratory techniques and the principles of using research equipment and the basics of its operation)	[SW5] implementation of a problem task
	[BIOLL3_W09] The graduate knows the most important laws and rules of physics and chemistry underlying biological processes and the properties of chemical elements and compounds	written works, final tests (the student knows laboratory techniques and the principles of using research equipment and the basics of its operation)	[SW5] implementation of a problem task
	[BIOLL3_U13] The graduate is able to present their own ideas and use adequate argumentation in the context of selected theoretical and practical perspectives	final tests, conducting an experiment, report on laboratory tests (the student is able to carry out experiments related to the synthesis of organic compounds, correctly selecting experimental techniques and equipment, correctly documenting the results of his work using the current nomenclature, can apply knowledge acquired outside classes and exercise instructions to plan subsequent exercises experiments	[SU5] implementation of a problem task
	[BIOLL3_U05] The graduate will be able to synthesise data from a variety of sources and draw appropriate conclusions	final tests, conducting an experiment, report on laboratory tests (the student is able to carry out experiments related to the synthesis of organic compounds, correctly selecting experimental techniques and equipment, correctly documenting the results of his work using the current nomenclature, can apply knowledge acquired outside classes and exercise instructions to plan subsequent exercises experiments	[SU5] implementation of a problem task
	[BIOLL3_U01] The graduate will be able to use basic apparatus and research tools and follow the correct sequence of operations in laboratory and field work	final tests, conducting an experiment, report on laboratory tests (the student is able to carry out experiments related to the synthesis of organic compounds, correctly selecting experimental techniques and equipment, correctly documenting the results of his work using the current nomenclature, can apply knowledge acquired outside classes and exercise instructions to plan subsequent exercises experiments	[SU5] implementation of a problem task
Assessment methods and criteria	[BIOLL3_K05] The graduate is prepared to take responsibility for their own and others' safety at work and to recognise risk situations and take appropriate action	observation and assessment of the student's skills (the student is able to correctly select the level of tasks in the context of his/her skills, perfectly organizes and manages group work, perfectly organizes the workstation, observing the sequence of procedures performed)	[SK5] implementation of a problem task
	Topics of laboratory exercises: basics of laboratory work, performing several exercises/experiments thematically related to the above-mentioned lecture program.		
Subject contents	Basic knowledge of general and analytical chemistry		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	conducting planned chemical experiments	51.0%	100.0%

Recommended reading	Basic literature	Organic Chemistry, 4th Edition, Paula Yurkanis Bruice Organic Chemistry, 5th Edition, L. G. Wade General, Organic, and Biological Chemistry, 5th Edition, H. Stephen Stoker Morrison R., Boyd R. 1999. Chemia organiczna. PWN, Warszawa. McMurry John, Chemia organiczna, Wydawnictwo Naukowe PWN Kupryszewski G., Sobocińska M., Walczyna R. 1988. Podstawy preparatyki związków organicznych. Wyd. Gdańskie, Gdańsk. Walczyna R., Sokołowski J., Kupryszewski G. 1996. Analiza związków organicznych. Wyd. UG, Gdańsk
	Supplementary literature	non
	eResources addresses	
Example issues/ example questions/ tasks being completed	Consistent with the content of classes.	
Work placement	Not applicable	

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