

1.	Field of study	Biotechnology
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	2025/2026 (winter term)
4.	Level of qualifications/degree	first-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time

7.	General information about the module	
Module name		Organic chemistry
Module code		1BT_23_12
Number of the ECTS credits		4
Language of instruction		
Purpose and description of the content of education		The module provides basic knowledge in the field of organic chemistry. Explains the classification of organic compounds due to the presence of functional groups. Discuss the relationship between the structure of organic compounds and their physical and chemical properties. He familiarizes with the reactions typical for individual classes and the basic mechanisms of their course. Familiarizes the student with the structure and some reactions of selected organic compounds naturally occurring in nature. The student learns the basic techniques of working in the organic chemistry laboratory and applies them in practice during the synthesis of simple organic preparations. He learns the basics of qualitative analysis of organic compounds. Learns to document conducted experiments.
List of modules that must be completed before starting this module (if necessary)		not applicable

8.	Learning outcomes of the module			
Code	Description	Learning outcomes of the programme	Level of competenc (scale 1-5)	
1BT_02_P	Characterizes organic compounds and assesses the importance of carbon chemistry for the functioning of life	1BT_W02	5	
1BT_02_P	Explains chemical phenomena occurring in nature and recognizes the basic rules governing chemical reactions	1BT_W02	4	
1BT_U04_P	The graduate understands the importance of experimental work in an organic chemistry laboratory. He knows the basic techniques of laboratory work and understands their theoretical basis. He notices their use in biotechnology. Under the supervision of a tutor, he performs simple research tasks and synthetic experiments. Demonstrates responsibility for own work and entrusted equipment. Can plan simple experiments and describe them. Respects the work of others and demonstrates responsibility for work safety in the chemical laboratory.	1BT_K01	5	
		1BT_K02	3	
		1BT_U04	5	
1BT_W02_P	Notifies the relationships and dependencies between chemical, biological and physical processes occurring in nature	1BT_W02	4	

9.	Methods of conducting classes		
Code	Category	Name (description)	
a01	Lecture methods / expository methods	Formal lecture/ course-related lecture <i>a systematic course of study involving a synthetic presentation of an academic discipline; its implementation assumes a passive reception of the information provided</i>	

a03	Lecture methods / expository methods	Description <i>a description of objects, phenomena, processes or people; it involves specifying the structure and characteristic features of the object, phenomenon, or process being described; it is usually accompanied by a demonstration of the described object or by its models, drawings, tables, charts, etc.; a description may take the form of an explanation, classification, justification or comparison</i>
b02	Problem-solving methods	Lecture-discussion <i>transmission of content involving interaction with the lecture audience; discussion of lecture-related issues is one of its elements or constitutes its follow-up</i>
e01	Practical methods	Laboratory exercise / experiment <i>[also conducted as fieldwork] a method of practical application of knowledge; implemented in three stages: the recognition of a problem induced by the task content, the formulation of the problem and the attempt to solve it accompanied by the assessment of the effects; the goal is to acquire skills, abilities and habits, and to consolidate the acquired knowledge so that it becomes operational; the laboratory method assumes greater independence of learners than carrying out an experiment</i>
f01	Methods of self-learning	Self-education <i>a method which involves independent acquisition of knowledge, skills and social competences, extending their scope and quality; complementary to the learning process taking place in class; taking on the task of developing and adjusting qualifications on one's own; self-study</i>
f02	Methods of self-learning	Individual work with a text <i>searching for and acquiring new information using textbooks and other written sources (including their digital versions); searching for texts, selecting fragments for analysis/interpretation, using other texts to solve a problem related to the studied issue</i>

10. Forms of teaching					
Code	Name	Number of hours	Assessment of the learning outcomes of the module	Learning outcomes of the module	Methods of conducting classes
1BT_23_12	lecture	15	exam	1BT_02_P, 1BT_02_P , 1BT_W02_P	a01, a03, b02, f01, f02
1BT_23_12	laboratory classes	30	course work	1BT_02_P, 1BT_02_P , 1BT_U04_P, 1BT_W02_P	e01, f01, f02

11. The student's work, apart from participation in classes, includes in particular:			
Code	Category	Name (description)	Is it part of the BUNA?
a02	Preparation for classes	Literature reading / analysis of source materials <i>reading the literature indicated in the syllabus; reviewing, organizing, analyzing and selecting source materials to be used in class</i>	No
a05	Preparation for classes	Production/preparation of tools, materials or documentation necessary for class participation <i>developing, preparing and assessing the usefulness of tools and materials (e.g. aids, scenarios, research tools, equipment, etc.) to be employed in class or as an aid when preparing for classes</i>	No
b03	Consulting the curriculum and the organization of classes	Consulting the schedule <i>getting acquainted with the class schedule, possibly in the presence of the year tutor, in order to optimize participation in classes, including those supplementary to the core subjects listed in the pursued study programme</i>	No