

1.	Field of study	Biophysics
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2023/2024 (winter term), 2024/2025 (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		Modern IT Tools
Module code		W4-BF-S1-2-23-50B
Number of the ECTS credits		3
Language of instruction		Polish
Purpose and description of the content of education		The course "Modern IT Tools" aims to familiarize students with a diverse range of modern tools and technologies used in the field of computer science. Through interactive classes and practical exercises, students acquire practical skills in utilizing these tools to solve biophysical problems. Throughout the course, students will explore various IT tools and technologies, such as programming languages, development environments, and database management systems.
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)
	E1	The student possesses knowledge about various IT tools and technologies used in the field of computer science, such as programming languages, development environments, and database management systems.	W08	1
	E2	The student is capable of effectively utilizing modern IT tools to solve biophysics-related problems. They can identify appropriate tools and technologies and apply them in practice.	U06	1

9.	Methods of conducting classes		
	Code	Category	Name (description)
	a05	Lecture methods / expository methods	Explanation/clarification <i>explication involving the derivation of a predetermined theorem from other, already known ones, in the number of steps specified by the person teaching the course</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>

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
FZ1	laboratory classes	30	course work	E1, E2	a05, e01

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
a03	Preparation for classes	Developing practical skills <i>activities involving the repetition, refinement and consolidation of practical skills, including those developed during previous classes or new skills necessary for the implementation of subsequent elements of the curriculum (as preparation for class participation)</i>		Yes
c03	Preparation for verification of learning outcomes	Implementation of an individual or group assignment necessary for course/phase/ examination completion <i>a set of activities aimed at performing an assigned task, to be executed out of class, as an obligatory phase/element of the verification of the learning outcomes assigned to the course</i>		Yes

Information on the details of the module implementation in a given academic year can be found in the syllabus available in the USOS system: <https://usosweb.us.edu.pl>.