University of Silesia in Katowice

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		Statistical Methods for Research Measurement Processing
Module code		W4-BF-S1-2-23-13
Number of the ECTS credits		2
Language of instruction		Polish
Purpose and description of the content of education		The module aims to provide students with the necessary knowledge and familiarity with tools for advanced analysis of experimental data. During the course, students will perform statistical analysis of experimental data with the help of specialized software.
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 competence (scale 1-5)
E1	The student knows basic statistical concepts and basic descriptive statistics.		W08	1
E2	The student is able to independently conduct physical data analysis using computer software.		U05	1
			U06	1
E3	The student understands the need for further education and the development of skills in methods of analyzing experimental data.		K01	1

9.	Methods of conducting classes	
Code	Category	Name (description)
a05	Lecture methods / expository methods	Explanation/clarification *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*
d01	Programmed learning methods	Working with a computer *e.g., Webquest; implementation of educational tasks using electronic and digital devices, computer programs and Internet applications; the academic teacher acts as a consultant; students' work is carried out step by step according to the plan laid own by the person teaching the course and following his instructions, and proceeds towards producing the indicated results within the set deadline*

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	20	course work	E1, E2, E3	a05, d01

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 *reading the literature indicated in the syllabus; reviewing, organizing, analyzing and selecting source materials to be used in class*	No
a03	Preparation for classes	Developing practical skills *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)*	Yes
b01	Consulting the curriculum and the organization of classes	Getting acquainted with the syllabus content *reading through the syllabus and getting acquainted with its content*	No
c03	Preparation for verification of learning outcomes	Implementation of an individual or group assignment necessary for course/phase/examination completion *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*	No

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.