

1.	Field of study	Environmental Protection
2.	Faculty	Faculty of Natural Sciences
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		Basics of statistics
Module code		1OS_23_05
Number of the ECTS credits		1
Language of instruction		
Purpose and description of the content of education		The module aims to familiarize students with the problem of planning experiments in the field of nature and environmental protection and statistical processing of the obtained data, interpretation of the obtained results and drawing correct conclusions. During the course, special emphasis is placed on statistical methods dedicated to research in the field of nature and environmental protection.
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)	
01	The student knows the basic concepts of statistics and is able to interpret them correctly	1OS_K02	1	
		1OS_U02	3	
		1OS_W07	2	
		1OS_W15	1	
02	The student is able to ask the right research questions and plan the right research/experiments to get answers to the questions asked	1OS_K02	2	
		1OS_U04	2	
		1OS_W07	3	
03	The student is able to choose appropriate statistical methods for the analysis of the collected data	1OS_K01	1	
		1OS_K02	1	
		1OS_U02	2	
		1OS_U08	1	
		1OS_W02	1	
		1OS_W07	2	
04	The student is able to correctly interpret the results obtained and draws the right conclusions	1OS_U02	3	

		1OS_U08	3
		1OS_W06	2
		1OS_W07	1
		1OS_W15	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>
b01	Problem-solving methods	Problem-based lecture <i>an analysis of a selected scientific or practical problem accompanied by its assessment and an attempt to provide a solution to the issues presented in the lecture as well as the indication of the consequences of the proposed solution</i>
b04	Problem-solving methods	Activating method – discussion / debate <i>an exchange of views supported by substantive arguments leading to a clash of different views, a compromise or the identification of common positions; it proceeds according to previously agreed-upon rules regarding the time, manner and turn-taking as well as the principles of civil discourse; a discussion is not a competition but aims at finding the best solutions or presenting different points of view; its varieties include brainstorming, Oxford-style debate, panel discussion, decision tree, conference discussion; a debate is an orderly dispute between supporters and opponents of a viewpoint, usually specialists in the field or pre-selected representatives of a group dealing with a common problem</i>
c07	Demonstration methods	Screen presentation <i>a presentation of synthetic image content using computer graphics, e.g., a series of slides or other multimedia forms, usually accompanied by a commentary; typical components of a screen presentation include text organized into bulleted points, charts, images and animations, sometimes sound effects or music; a multimedia illustration of course content presented in the form of a projected image</i>
d01	Programmed learning methods	Working with a computer <i>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</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
01	laboratory classes	15	course work	01, 02, 03, 04	a05, b01, b04, c07, d01

11. The student's work, apart from participation in classes, includes in particular:			
Code	Category	Name (description)	Is it part of the BUNA?
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
c02	Preparation for verification of learning outcomes	Studying the literature used in and the materials produced in class	Yes

		<i>exploring the studied content, inquiring, considering, assimilating, interpreting it, or organizing knowledge obtained from the literature, documentation, instructions, scenarios, etc., used in class as well as from the notes or other materials/artifacts made in class</i>	
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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>.