

1.	Field of study	Environmental Protection
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		Lichenology (e-learning subject of choice)
Module code		1OS_23_65
Number of the ECTS credits		2
Language of instruction		
Purpose and description of the content of education		Objective: to systematize and expand knowledge on the diversity and importance of lichenized fungi (lichens). The subject is designed to encourage students to deepen their knowledge in the field of natural sciences - in the field of the diversity of lichenized fungi and their importance in nature, through a distance learning system. After completing the module, the student should know the most important concepts related to the structure of lichens, the method of their reproduction, the rules for their determination, as well as the methods of collecting and preserving the research material. He should know the protected species of lichens and their importance for the natural environment. The Lichenology subject is an elective course in the e-learning mode.
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)	
w1	Demonstrates an appropriate level of knowledge and understanding of biological terminology relevant to the field of biology and environmental protection and related fields. Knows and understands the relationships and dependencies between biological processes occurring in nature.	1OS_U07 1OS_W01 1OS_W02 1OS_W04 1OS_W14	2 2 2 2 2	
w2	Has basic knowledge of the classification of fungal and fungus-like organisms, biological diversity, understands the natural phenomena and processes that shape it and the human impact on the environment on a local, regional and global scale, knows and understands the functioning of a lichen organism as a complex whole and the relationship between this organism and environment.	1OS_U07 1OS_U09 1OS_U10 1OS_W04 1OS_W05	2 2 2 3 2	
w3	Is able to work independently and communicate with a group during teamwork, is able to select and use available sources of information, evaluate, critically analyze and synthesize this information.	1OS_U07 1OS_U10	3 2	

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>
b09	Problem-solving methods	Activating method – flipped classroom <i>anticipatory learning; work in class is based on previously studied material indicated by the person teaching the course; preparation outside the classroom serves the purpose of getting familiar with the issues whose knowledge is necessary for participating in the in-class discussion and the training in the related practical skills; the activity is based on the work of students under the guidance of the person teaching the course</i>
c06	Demonstration methods	Demonstration-imitation <i>a presentation of a model way of performing specific activities accompanied by a commentary; it aims at triggering imitation activities in an individual or in a group of participants observing the activities of the person teaching the course until the right habit is formed through regular exercise; the demonstration-imitation method is combined with a physical practice of activities/behaviours</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>
d03	Programmed learning methods	Working with another teaching tool <i>e.g. using websites in any way or according to the rules set by the teacher; or making use of other subject-specific tools</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
L1	laboratory classes	30	course work	w1, w2, w3	a05, b09, c06, d01, d03, 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?	
a01	Preparation for classes	Search for materials and review activities necessary for class participation <i>reviewing literature, documentation, tools and materials as well as the specifics of the syllabus and the range of activities indicated in it as required for full participation in classes</i>	Yes	
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>	Yes	
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	
b01	Consulting the curriculum and the organization of classes	Getting acquainted with the syllabus content <i>reading through the syllabus and getting acquainted with its content</i>	Yes	
c01	Preparation for verification of learning outcomes	Determining the stages of task implementation contributing to the verification of learning outcomes <i>devising a task implementation strategy embracing the division of content, the range of activities, implementation time and/or the method(s) of obtaining the necessary materials and tools, etc.</i>	Yes	
d01	Consulting the results of the verification of learning outcomes	Analysis of the corrective feedback provided by the academic teacher on the results of the verification of learning outcomes <i>reading through the academic teacher's comments, assessments and opinions on the implementation of the task aimed at checking the level of the achieved learning outcomes</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>.