

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		Fundamentals of botany
Module code		1OS_23_01
Number of the ECTS credits		4
Language of instruction		
Purpose and description of the content of education		The Botany module allows the student to broaden their knowledge in the field of botany, familiarize themselves with the principles of botanical nomenclature and methods used in taxonomy. It will also provide knowledge of the diversity of plants and fungi, with particular emphasis on endangered species. The acquired knowledge and skills will contribute to understanding the place of plants and fungi in the phylogenetic tree of living organisms. The module provides knowledge of the structure and function of the plant cell. The student learns to classify and recognize plant tissues. They become acquainted with the morphological and anatomical structure of plant organs and know how to relate it to the adaptation of plants to different natural environments (ecological forms). Acquires the ability to make microscopic preparations and microscopic analysis.
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)	
U01	Applies basic techniques of microscopic preparation and uses a light microscope.	1OS_U10	3	
W01	Defines and explains the basic concepts of botany. Lists and describes the most important events in the history of botany.	1OS_W02	4	
W02	Has knowledge of the structure and functioning of plant cells, tissues and organs. It describes the anatomical adaptations of plants to various natural environments. Applies and explains the principles of botanical nomenclature and describes the basic research methods used in the taxonomy of plants and fungi. Explains and discusses the place of plants and fungi in the phylogenetic tree of living organisms. Lists and describes the main systematic groups of plants and fungi. Recognizes the affiliation of species to a specific systematic group.	1OS_U07 1OS_W02 1OS_W04	3 3 3	
W03	It lists and identifies taxa that are particularly endangered and require protection.	1OS_K04 1OS_U09 1OS_W04 1OS_W14	3 3 3 3	

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>
c01	Demonstration methods	Exhibition <i>preparing an object for public display and displaying it in order to elicit a specific reaction; creating a themed collection of specimens/objects/works to illustrate a specific issue</i>
c02	Demonstration methods	Video show <i>reproducing a film or video material in its entirety or in fragments in order to illustrate the content taught in class, to submit it to analysis and evaluation or to use it as an exercise in image perception; a film/video can be a work of art, an illustration (also technical illustration) of a content/phenomenon/object, a private record of an action, a media image, etc.</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>
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>
e06	Practical methods	Observation <i>also conducted as fieldwork; a method of watching phenomena, objects or people in a systematic/planned way in order to gain knowledge about them; perceptual separation of elements of a model action as an element of learning through imitation; a complex system of cognition based on sensory experiences</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>

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	discussion classes	10	exam	W01, W02, W03	a01, a03, c02, c07
02	laboratory classes	45	exam	U01, W01, W02, W03	c01, c02, c07, d03, e06, f01

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</i>	No

		<i>range of activities indicated in it as required for full participation in classes</i>	
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
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
c02	Preparation for verification of learning outcomes	Studying the literature used in and the materials produced in class <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>	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>.