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	**Ecopedology**
Module code	1OS_23_12
Number of the ECTS credits	2
Language of instruction	
Purpose and description of the content of education	The main aim of the course is to present basic knowledge of soil science and the diversity of soil cover in Poland against a background of biotic and abiotic conditions. The student acquires knowledge of soil as an element of the geographical environment. The student gets acquainted with the role of soil-forming factors and processes, pedon, polypedon, methods of soil profile description, and learns about diagnostic levels of soils of different climatic zones. The student learns about soil's composition and basic properties (physical, chemical) and morphological characteristics as a basis for soil classification. The student learns about the distribution patterns and characteristics of the soil cover in Poland. In the field, learns about the relationship between relief, soil and vegetation and the regularities in their distribution. The student learns the methodology of basic laboratory analysis of soils and the interpretation of soil maps. The student learns about the regularities in the distribution of soil types and subtypes in relation to plant communities. Learned to observe and understand relationships between soil and vegetation. The learner becomes practically acquainted with the soil outcrop. Acquires skills in interpreting thematic maps and using them in the field.
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)
1OS_23_12_1	Knows the phenomena occurring in nature and understands the relationships and interrelationships between the various disciplines of natural sciences, in particular the relationships between animate and inanimate nature.	1OS_W01	5
1OS_23_12_2	Knows and characterises soil-forming processes, and explains the geological, geomorphological, hydrological, climatic and biological conditions of soil formation.	1OS_W02	5
1OS_23_12_3	Explains and applies the basic scientific terminology of ecopedology as used in published scientific work. Defines soil science as a science, outlines the scope and tasks of research and the reasons for variation in soil chemistry.	1OS_W03	5
1OS_23_12_4	He knows the basic techniques and methods of analysis of soil surveys, and is familiar with measurement techniques and procedures related to environmental monitoring, including soil.	1OS_U03 1OS_W03	4 4
1OS_23_12_5	Under the instructor's supervision, determine the morphological characteristics of soils and carry out basic laboratory analyses of soil samples from different ecosystems.	1OS_U01 1OS_U03	5 5

1OS_23_12_6	Interprets observations and measurements and draws correct conclusions from them, combines theoretical knowledge with practical skills	1OS_U02	4
1OS_23_12_7	Be able to prepare, individually or in teams, a report on the observations and analyses carried out	1OS_K01	5

9. Methods of conducting classes

Code	Category	Name (description)
a01	Lecture methods / expository methods	Formal lecture/ course-related lecture *a systematic course of study involving a synthetic presentation of an academic discipline; its implementation assumes a passive reception of the information provided*
a03	Lecture methods / expository methods	Description *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*
b02	Problem-solving methods	Lecture-discussion *transmission of content involving interaction with the lecture audience; discussion of lecture-related issues is one of its elements or constitutes its follow-up*
b04	Problem-solving methods	Activating method – discussion / debate *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*
c07	Demonstration methods	Screen presentation *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*
d03	Programmed learning methods	Working with another teaching tool *e.g. using websites in any way or according to the rules set by the teacher; or making use of other subject-specific tools*
e01	Practical methods	Laboratory exercise / experiment *[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*
e05	Practical methods	Internship *including professional and individual training; gaining skills and experience in real-life conditions, e.g., in the environment, institution or workplace the student is preparing for by following a specific study programme; training in real working conditions*
e06	Practical methods	Observation *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*

f02	Methods of self-learning	Individual work with a text *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*

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
1OS_23_12_fs_1	lecture	10	course work	1OS_23_12_1, 1OS_23_12_2, 1OS_23_12_3	a01, a03, b02, b04, c07
1OS_23_12_fs_2	laboratory classes	15	course work	1OS_23_12_3, 1OS_23_12_4, 1OS_23_12_5, 1OS_23_12_6, 1OS_23_12_7	c07, d03, e01, e05, e06, f02
1OS_23_12_fs_3	field practice	5	course work	1OS_23_12_2, 1OS_23_12_3, 1OS_23_12_4, 1OS_23_12_6	e05, e06

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 *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*	Yes
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*	Yes
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*	Yes
c02	Preparation for verification of learning outcomes	Studying the literature used in and the materials produced in class *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*	Yes
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*	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.