

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		Ecosystem services
Module code		1OS_23_66
Number of the ECTS credits		3
Language of instruction		
Purpose and description of the content of education		<p>The module covers issues related to the functioning of natural and anthropogenic ecosystems with a focus on urban ecosystems. The educational content includes ecosystem services. The course deals with the classification of ecosystem services according to MEA (2005), TEEB, CICES. Methods for valuing ecosystem services, including green infrastructure, are explored. Green roofs are analysed in detail, their ecological, economic and social potential, as one of the proposed solutions to support ecosystem services in cities. The aim of the course is to familiarise students with trends in green infrastructure development as indicated in climate change adaptation strategies; taking into account the idea of nature-based solutions, including quality of life.</p>
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)	
K_01	Recognises social problems in the context of natural capital. Independently proposes solutions to support ecosystem services. Knows how to identify ecosystem services and benefits and green infrastructure.	1OS_K01	3	
		1OS_K03	2	
		1OS_K04	4	
U_01	Uses GIS tools and reads literature on the subject freely. Links their work with others and between biological, social and economic disciplines. Analyses and evaluates phenomena on a local and global scale.	1OS_U02	3	
		1OS_U03	2	
		1OS_U07	2	
		1OS_U09	2	
W_01	Knows and understands the importance of the environment and its benefits for the functioning of organisms and quality of life. Knows Identifies threats resulting from unsustainable management of environmental resources and identifies solutions to minimise them.	1OS_W04	3	
		1OS_W05	3	
		1OS_W06	2	
		1OS_W07	3	
		1OS_W08	2	

		1OS_W12	4
		1OS_W13	2
		1OS_W14	2
		1OS_W15	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>
b07	Problem-solving methods	Activating methods: a case study <i>a comprehensive description of a phenomenon connected with the selected discipline; reflecting the reality, presenting the 'what', 'where' and 'how' of the phenomenon, i.e., all of its key aspects to be discussed in class; used as a reproduction, presentation, discussion or diagnosis of factors that shape the phenomenon or interact with it; an in-depth qualitative analysis and evaluation of a selected phenomenon</i>
c09	Demonstration methods	Value-based methods – expressive methods <i>methods of accessing value-related knowledge, experiencing values in emotion-laden activities; creating situations enabling the creation or reproduction of values as a way of self-expression combined with experiencing values (individually or in a group); actions, most often creative, involving an expressive and suggestive way of expressing emotions</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>
d04	Programmed learning methods	Reconstruction / reproduction <i>proceeding according to the indicated/displayed pattern/model; e.g., the reconstruction of a structure, model, image, etc.</i>
e03	Practical methods	Creation/production – creative workshop <i>an activity involving creating/producing a work/artifact based on the individual, creative effort of the participant; the creative workshop is characterized by the presence and openness which make it possible to access the essence of the work/peculiarity of the artifact at every stage of its creation/production</i>
e04	Practical methods	Project scheduling <i>proceeding according to the steps proposed within a specific methodology for the completion of a task; e.g., identifying project objectives, determining the result, identifying strengths, limitations, opportunities and threats (SWOT), establishing a schedule of activities, assessing resources, establishing an implementation plan; the initial diagnosis; the reassessment of assumptions; the process of preparing the practical implementation of a project</i>
e05	Practical methods	Internship <i>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</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>
e08	Practical methods	Practice-as-research

		<i>also conducted as fieldwork; an activity aimed at confronting the acquired theory with practice through its practical application; students situate themselves in the reality they observe, study and transform through the prism of the theory; the method of practical classes is dominated by the application of knowledge to solving practical tasks</i>
e09	Practical methods	Plein air session <i>implementation of a creative task in an open-air area, e.g. outside the studio</i>
f03	Methods of self-learning	Conceptual work <i>a (mainly intellectual) activity carried out independently (or in a selected group) resulting in the creation of a concept, idea or project; creating a plan based on a vision; developing a general outline of a project; producing a simplified sketch of the variant versions of a procedure/product/work</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
1OS_23_66	workshop	30	course work	K_01, U_01, W_01	a05, b07, c09, d01, d04, e03, e04, e05, e06, e08, e09, f03

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>	No
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
a05	Preparation for classes	Production/preparation of tools, materials or documentation necessary for class participation <i>developing, preparing and assessing the usefulness of tools and materials (e.g. aids, scenarios, research tools, equipment, etc.) to be employed in class or as an aid when preparing for classes</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
b02	Consulting the curriculum and the organization of classes	Verification / adjustment / discussion of syllabus provisions <i>consulting the content of the syllabus, possibly in the presence of the year tutor or members of the class group, and, if necessary, reassessing the provisions concerning special conditions for class participation, e.g., space and time requirements, technical and other requirements, including conditions for participation in classes outside the walls of the university, classes organized in blocks, organized online, etc.</i>	Yes
c03	Preparation for verification of learning outcomes	Implementation of an individual or group assignment necessary for course/phase/ examination completion <i>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</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



e01	Activities complementary to the classes	Undertaking, on one's own initiative and individually, activities aimed at expanding the scope or depth of the teaching content, also beyond the walls of the University <i>a set of activities undertaken independently and on the student's own initiative, aimed at expanding the depth and scope of knowledge and skills, their revision and repetition, retention or verification, also activities carried outside the university, e.g., in a culture promoting or educational institution, a laboratory, in the open air, etc.; also self-education</i>	Yes
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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>.