

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	Extreme hydrological phenomena	
Module code	1OS_23_56	
Number of the ECTS credits	2	
Language of instruction		
Purpose and description of the content of education	The main goal is to gain knowledge about extreme hydrological phenomena. The student learns the definitions of such phenomena as: drought, flooding and the resulting environmental hazards and social impacts. He learns research methods to identify extreme ones hydrological phenomena. He becomes acquainted with the available data, geoportals that present these phenomena in Poland and Europe. Based on data is able to work out the scope and scale of a given phenomenon.	
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_56_1	knows the basic definitions of extreme hydrological phenomena	1OS_W01	1
1OS_23_56_2	Assesses critically the risks caused by extreme hydrological phenomena	1OS_W03	3
1OS_23_56_3	Uses specialized GIS software to learn about extreme hydrological phenomena	1OS_W07	3
1OS_23_56_4	Using the available data can calculate the basic parameters of the hydrological phenomenon	1OS_U01 1OS_W07	3 3
1OS_23_56_5	Improves their analytical skills using modern techniques, which increases their chances on the labor market	1OS_U02 1OS_U03 1OS_U09	3 2 3
1OS_23_56_6	Is able to supplement and improve the acquired knowledge and skills in the use of available data in the assessment extreme hydrological events.	1OS_K02 1OS_U07 1OS_U08	3 3 2

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>
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>
b10	Problem-solving methods	SWOT analysis <i>a method of analyzing a phenomenon/action/work of an institution, employed to organize information and solve problems; applied in strategic planning, project implementation or solving a business or organizational problem; a universal tool to be used in the initial stage of a strategic analysis which involves sorting information about a problem into four categories: strengths and weaknesses, opportunities and threats; SWOT analysis makes it possible to determine the factors in favour of a project and its chances for success, as well as eliminating or reducing negative factors and threats to the project at the stage of early diagnosis</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>
d02	Programmed learning methods	Working with a programmed textbook <i>working with a textbook containing instructional material covering part of or the entire curriculum of the module as well as a formula for studying the content; includes working with a subject textbook, an atlas, a catalogue, a problem book, etc.</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>
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>

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_56_1	lecture	15	course work	1OS_23_56_1, 1OS_23_56_2, 1OS_23_56_3, 1OS_23_56_4, 1OS_23_56_5, 1OS_23_56_6	a01
1OS_23_56_fs_2	laboratory classes	15	course work	1OS_23_56_1, 1OS_23_56_2, 1OS_23_56_3, 1OS_23_56_4, 1OS_23_56_5, 1OS_23_56_6	a05, b10, d01, d02, e04, e06

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
a04	Preparation for classes	Consulting materials complementary to those indicated in the syllabus <i>agreeing on materials complementary to those indicated in the syllabus, supporting the implementation of tasks resulting from or necessary for class participation</i>	No
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>	No
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>	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>.