

1. Field of study Environmental Hazard Engineering		Environmental Hazard Engineering			
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 (in engineering)			
5.	Degree profile	general academic			
6.	Mode of study	full-time			
7.	7. General information about the module				
Module name		Hydrological Hazards			
Module code		W2-IZ-S1-202			
Number of the ECTS credits		2			
Language of instruction		Polish			
Purpose and description of the content of education		As part of the module, the student learns about the most important hydrological threats, as well as their impact on life and selected areas of human activity. He learns the basic research methods and tools to describe the causes and effects of hydrological hazards. Using various sources of information about the environment, he acquires the ability to recognize hydrological threats in spatial and temporal terms. He learns the basic ways of applying environmental engineering to prevent hydrological hazards.			
List of modules that must be completed before starting this module (if necessary)		not applicable			

8. Learning	. Learning outcomes of the module					
Code	Description	Learning outcomes of the programme	Level of competenc (scale 1-5)			
K01	is aware of the importance and understands the non-technical aspects and effects of engineering activities, including its impact on the environment and the related responsibility for decisions made	U01 U03	3			
U01	he is able to use available sources of information on hydrological hazards, including electronic sources, and has the ability to correctly draw conclusions based on data from various sources	U04 U05 U09	4 3 4			
WO	he knows the basic techniques and research tools used in hydrology related to geohazards to describe the causes and effects of geohazards	W01 W02 W08	4 4 4			
W01	in the interpretation of phenomena and processes related to hydrological hazards, he relies on empirical foundations, fully understanding the importance of mathematical and statistical methods	W01 W08	5 3			
W02	has knowledge in the field of statistics and computer science at a level that allows describing and interpreting hydrological phenomena and processes that constitute geohazards	U11 W01 W02	3 5 3			



W06	has basic knowledge of the life cycle of equipment, facilities and technical systems related to hydrological hazards	U10	4
		W01	3
		W05	3

9. Methods of	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			
d01	Programmed learning methods	Working with a computer 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			
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			
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 teach	Forms of teaching				
Code	Name		-	Learning outcomes of the module	Methods of conducting classes
W2-IZ-S1-202_fs_1	lecture	15	exam	W0, W01, W02, W06	a01
W2-IZ-S1-202_fs_2	laboratory classes	15	course work	K01, U01, W0, W01, W02, W06	d01, d03, f02

11. The student's	The student's work, apart from participation in classes, includes in particular:			
Code	Category	Name (description)	Is it part of the BUNA?	
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	
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	

Information on the details of the module implementation in a given academic year can be found in the syllabus available in the USOS system: <u>https://usosweb.us.edu.pl</u>.