

1.	Field of study	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.	General information about the module		
Module name		Geohazards Basics Field Research	
Module code		W2-IZ-S1-159	
Number of the ECTS credits		1	
Language of instruction		Polish	
Purpose and description of the content of education		<p>1. Continuous and discontinuous deformations in the areas of historical and contemporary mining (metal ores and hard coal) and their impact on various components of the geographical environment, natural processes and human economic activity, on the example of the north-western districts of Bytom. Making a map of environmental deformations and trends in the development of geohazards using modern methods and measuring devices.</p> <p>2. Chemical degradation of the environment caused by historical and contemporary mining and processing of non-ferrous metal ores, on the example of the vicinity of Miasteczko Śląskie. Getting acquainted with the available data on the quality of air and precipitation, soils, characteristics of the population's diseases, methods of reducing the effects of pollution.</p> <p>3. Occurrence of landslides in the Carpathian flysch on the example of the Spisko-Gubałowski Range. Presentation, mapping and description of the landslide over Białka at the base of Czarna Góra.</p> <p>4. Flood hazard in the valley of a mountain river on the example of Białka. Preparation of a flood hazard map for natural and anthropogenic components of the geographical environment with the use of modern research methods and equipment.</p> <p>5. Analysis of the occurrence of "chain" geohazards: flood - lateral erosion - landslides - obstruction of the river outflow - flooding/flooding of sewage treatment plants - contamination of surface waters and thick clastic alluvium - degradation of the usable level with water intakes - state of epidemic threat.</p> <p>6. Characteristics and functioning of the Czorsztyn Reservoir, with particular emphasis on the occurrence of catastrophic phenomena within it and within the catchment area above the dam in Niedzica.</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 competences (scale 1-5)
	U01	be able to use analytical methods in geohazard analysis	U07 U09	3 4
	U02	has a basic knowledge of the life cycle of equipment, facilities and technical systems related to geohazards.	U04	4
	U03	knows the basic methods, techniques, tools and materials used in solving simple environmental engineering tasks	U03	4

directed at geohazards

**9. Methods of conducting classes**

Code	Category	Name (description)
b04	Problem-solving methods	Activating method – discussion / debate <i>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</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>
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>
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>

**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
W2-IZ-S1-159_fs_1	field practice	36	course work	U01, U02, U03	b04, b07, e05, e08

**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
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
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
d03	Consulting the results of the verification of learning outcomes	Review of internship documentation <i>an analysis of the portfolio of documentation obtained during internship, including professional</i>	Yes

		<i>internship, and other practical classes and studio sessions, as well as the documentation developed in order to obtain credit for such classes; verification of the description, necessary attachments, opinions and grades before submitting the portfolio for acceptance</i>	
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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>.