1.	**Field of study**	**Environmental Hazard Engineering**
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	2025/2026 (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	**Engineering Geology**
Module code	W2-IZ-S1-011
Number of the ECTS credits	6
Language of instruction	Polish
Purpose and description of the content of education	The module allows students to familiarize themselves with the physical properties and processes in a shallow geological environment. The student acquires the ability to classify soils and assess their suitability from the point of view of engineering and environmental applications. The issues of soil strength parameters will be discussed, including the phenomena related to the presence and movement of water in the ground. The student learns field and laboratory methods of soil testing. The importance of geotechnical research in the investment process is emphasized.
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)
K01	understands the non-technical aspects and effects of engineering activities, including its impact on the environment and the related responsibility for decisions; is responsible for the safety of his own and others' work, knows how to act in emergency situations	K01 K03 K04	1 2 4
U01	is able to use available sources of information on topics related to engineering geology, including electronic sources, and has the ability to correctly draw conclusions based on data from various sources	U01 U02	2 5
U02	understands engineering geology literature; reads and understands uncomplicated scientific texts in English	U02 U03	3 3
W01	has knowledge of basic problems, conceptual categories and terminology related to engineering geology and knows the connections between sciences covering geological issues and other natural sciences	W01	5
W02	he has knowledge of research methods used in geology, including methods for determining the physical parameters of the soil	W02 W03	3 2
W03	he knows the methods, techniques, tools and materials used in solving tasks in the field of environmental engineering	U09 U10	3 2

		W01 W02 W03 W08	4 2 5 2

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*
d02	Programmed learning methods	Working with a programmed textbook *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.*
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*
e04	Practical methods	Project scheduling *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*
e08	Practical methods	Practice-as-research *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*

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-S1-011_fs_1	lecture	30	exam	W01, W02, W03	a01
W2-IZ-S1-011_fs_2	laboratory classes	30	course work	K01, U01, U02	d01, d02, d03, e01, e04, 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 *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
a04	Preparation for classes	Consulting materials complementary to those indicated in the syllabus *agreeing on materials complementary to those indicated in the syllabus, supporting the implementation of tasks resulting from or necessary for class participation*	Yes
a05	Preparation for classes	Production/preparation of tools, materials or documentation necessary for class participation *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*	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.