

1.	Field of study	Applied Geology
2.	Faculty	Faculty of Natural Sciences
3.	Academic year of entry	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	Drilling 2
Module code	W2-GS-S1-044
Number of the ECTS credits	1
Language of instruction	Polish
Purpose and description of the content of education	Zadaniem modułu Wiertnictwo 2 jest samodzielne przygotowanie dwóch projektów: (1) zarurowania otworu wiertniczego oraz (2) zacementowania otworu wiertniczego. Zadanie to realizowane jest przez poruszanie zagadnień: dobór średnic i parametrów wytrzymałościowych rur okładzinowych oraz doboru średnic świrdrów. Zapoznanie studentów ze wzorami umożliwiającymi obliczenie ciśnień (złożowe, hydrostatyczne, geostatyczne, szczelinowania) w otworze wiertniczym. Zapoznanie studentów z algorytmem cementowania kolumn rur okładzinowych. Zadania obliczeniowe.
List of modules that must be completed before starting this module (if necessary)	[W2-GS-S1-413] Drilling 1

8. Learning outcomes of the module			
Code	Description	Learning outcomes of the programme	Level of competenc (scale 1-5)
W2-GS-S1-044_1	znajomość podstawowych zagadnień z zakresu wiertnictwa	1GS_W1 1GS_W2 1GS_W3 1GS_W6	1 1 1 1
W2-GS-S1-044_2	umiejętność doboru sprzętu wiertniczego	1GS_U1 1GS_U2 1GS_U5	1 2 1
W2-GS-S1-044_3	zdolność do sporządzenia projektu zarurowania otworu wiertniczego	1GS_U1 1GS_U2 1GS_U5	1 2 2
W2-GS-S1-044_4	zdolność do opracowania projektu cementowania otworu wiertniczego	1GS_U1 1GS_U2	1 2

		1GS_U5	2
W2-GS-S1-044_5	umiejętność zidentyfikowania elementów urządzeń wiertniczych	1GS_U1 1GS_U2	1 1
W2-GS-S1-044_6	świadomość roli, czynności, obowiązków i odpowiedzialności służby geologicznej dozorującej wiercenia	1GS_K1 1GS_K2 1GS_K3 1GS_K4 1GS_K6	1 1 1 1 1
W2-GS-S1-044_7	postępuje zgodnie z zasadami etyki ekologicznej, ma świadomość istniejących unormowań prawnych w geologii i przestrzega ich	1GS_K1 1GS_K2 1GS_K3 1GS_K4 1GS_K6	1 1 1 1 1

9. Methods of conducting classes		
Code	Category	Name (description)
a03	Lecture methods / expository methods	Description <i>a description of objects, phenomena, processes or people; it involves specifying the structure and characteristic features of the object, phenomenon, or process being described; it is usually accompanied by a demonstration of the described object or by its models, drawings, tables, charts, etc.; a description may take the form of an explanation, classification, justification or comparison</i>
c07	Demonstration methods	Screen presentation <i>a presentation of synthetic image content using computer graphics, e.g., a series of slides or other multimedia forms, usually accompanied by a commentary; typical components of a screen presentation include text organized into bulleted points, charts, images and animations, sometimes sound effects or music; a multimedia illustration of course content presented in the form of a projected image</i>
e01	Practical methods	Laboratory exercise / experiment <i>[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</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-GS-S1-044_I_1	laboratory classes	12	exam	W2-GS-S1-044_1, W2-GS-S1-044_2, W2-GS-S1-044_3, W2-GS-S1-044_4, W2-GS-S1-044_5, W2-GS-S1-044_6, W2-GS-S1-044_7	a03, c07, e01

11. 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 <i>reading the literature indicated in the syllabus; reviewing, organizing, analyzing and selecting source materials to be used in class</i>	No
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>	No
c02	Preparation for verification of learning outcomes	Studying the literature used in and the materials produced in class <i>exploring the studied content, inquiring, considering, assimilating, interpreting it, or organizing knowledge obtained from the literature, documentation, instructions, scenarios, etc., used in class as well as from the notes or other materials/artifacts made in class</i>	No
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>	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>.