

1.	Field of study	Water Management - Aquamatics
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 seminar 1
Module code		W2-GW-AQ-S1-047
Number of the ECTS credits		2
Language of instruction		Polish
Purpose and description of the content of education		Student nabywa umiejętności przygotowania pracy naukowej na poziomie pracy inżynierskiej. Uczy się planowania i realizacji kolejnych etapów przygotowania opracowania naukowego: pozyskiwania danych i literatury, efektywnej selekcji danych i literatury, prawidłowego wykorzystania informacji (w tym zasady działania Antyplagiatu), formułowania celu opracowania naukowego. W zależności od realizowanej przez studenta specjalności i tematyki pracy inżynierskiej: poznaje zasady doboru odpowiednich metod do rozwiązania konkretnego problemu lub sporządzania kompilacji na podstawie istniejącej literatury.
List of modules that must be completed before starting this module (if necessary)		[W2-GW-AQ-S1-021] GIS 1 [W2-GW-AQ-S1-022] GIS 2 [W2-GW-AQ-S1-015] Water status and resources monitoring [W2-GW-AQ-S1-018] Basics of chemical analytics [W2-GW-AQ-S1-023] Basics of data analysis [W2-GW-AQ-S1-012] Basics of chemistry [W2-GW-AQ-S1-014] Basics of ecology [W2-GW-AQ-S1-031] Basics of ecotoxicology [W2-GW-AQ-S1-011] Basics of engineering geology [W2-GW-AQ-S1-008] Basics of hydrobiology [W2-GW-AQ-S1-010] Basic of hydrogeology [W2-GW-AQ-S1-009] Basics of hydrology [W2-GW-AQ-S1-025] Basics of hydrotechnics [W2-GW-AQ-S1-034] Basics of ichthyology [W2-GW-AQ-S1-007] Basics of computer science and network security [W2-GW-AQ-S1-005] Basics of mathematics and statistics 1 [W2-GW-AQ-S1-016] Basics of meteorology and climatology [W2-GW-AQ-S1-032] Basics of chemometric methods [W2-GW-AQ-S1-017] Basics of aquatic microbiology [W2-GW-AQ-S1-024] Basics of environmental protection [W2-GW-AQ-S1-020] Basics of water reclamation and renaturalisation [W2-GW-AQ-S1-019] Basic principles of documentation preparation [W2-GW-AQ-S1-026] Engineering project 1 [W2-GW-AQ-S1-027] Engineering project 2

	[W2-GW-AQ-S1-030] Engineering proseminar [W2-GW-AQ-S1-033] Water in the city [W2-GW-AQ-S1-045] Basics of hydrogeology - field classes [W2-GW-AQ-S1-046] Basics of hydrology - field classes
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8. Learning outcomes of the module			
Code	Description	Learning outcomes of the programme	Level of competenc (scale 1-5)
W2-GW-AQ-S1-047 _1	Potrafi sformułować problem badawczy i zaproponować sposób jego rozwiązania.	GW-AQ1_K01	5
		GW-AQ1_U01	5
		GW-AQ1_W01	5
W2-GW-AQ-S1-047 _2	Potrafi zaplanować badania i przeprowadzić je zgodnie z obowiązującymi zasadami.	GW-AQ1_K01	4
		GW-AQ1_K02	4
		GW-AQ1_U01	4
		GW-AQ1_U02	4
		GW-AQ1_U03	4
W2-GW-AQ-S1-047 _3	Potrafi samodzielnie wykorzystać poznane narzędzia badawcze.	GW-AQ1_K01	4
		GW-AQ1_K02	4
		GW-AQ1_U02	4
		GW-AQ1_W01	4
		GW-AQ1_W08	4

9. Methods of conducting classes		
Code	Category	Name (description)
b05	Problem-solving methods	Activating method – seminar / proseminar <i>a seminar method; usually an oral presentation of a previously studied/diagnosed problem delivered on a forum; it aims at provoking a discussion concerning the results of research work; a type of conference, course or training session modelled on seminar classes</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-GW-AQ_047_fs_1	seminar	30	course work	W2-GW-AQ-S1-047_1, W2-GW-AQ-S1-047_2, W2-GW-AQ-S1-047_3	b05

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
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
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
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
d01	Consulting the results of the verification of learning outcomes	Analysis of the corrective feedback provided by the academic teacher on the results of the verification of learning outcomes <i>reading through the academic teacher's comments, assessments and opinions on the implementation of the task aimed at checking the level of the achieved learning outcomes</i>		Yes
d02	Consulting the results of the verification of learning outcomes	Development of a corrective action plan as well as supplementary/corrective tasks <i>reviewing and selecting tasks and activities enabling the elimination of errors indicated by the academic teacher, their verification or correction resulting in completing the task with at least the minimum passing grade</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>.