

1.	Field of study	Chemistry
2.	Faculty	Faculty of Science and Technology
3.	Academic year of entry	2024/2025 (winter term)
4.	Level of qualifications/degree	second-cycle studies
5.	Degree profile	general academic
6.	Mode of study	full-time

7.	General information about the module	
Module name	M.A. Seminar B	
Module code	W4-CH-S2-4-SDB	
Number of the ECTS credits	5	
Language of instruction	Polish	
Purpose and description of the content of education	<p>Moduł Seminarium magisterskie B ma na celu pogłębienie umiejętności badawczych i naukowych u osób studiujących. Podczas tego modułu studenci przedstawiają w formie prezentacji etapy realizacji pracy dyplomowej, doskonalą swoje umiejętności pisarskie poprzez konstruowanie tekstów naukowych. Uczestnicy uczą się formułować tezy naukowe oraz prezentować swoje badania przed audytorium, co rozwija ich umiejętności prezentacyjne i argumentacyjne. W trakcie seminarium studenci mają również okazję do prowadzenia dyskusji naukowych, co sprzyja pogłębianiu wiedzy i wymianie poglądów na tematy związane z chemią. Całość modułu pozwala studentom na uzyskanie głębszego zrozumienia procesów badawczych w dziedzinie chemii oraz przygotowuje ich do profesjonalnej pracy w przyszłości.</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 competenc (scale 1-5)	
W4-CH-S2-4-SDB_01	Posiada ogólną wiedzę o aktualnych kierunkach rozwoju i najnowszych odkryciach w zakresie chemii.	CH_W01	5	
W4-CH-S2-4-SDB_02	Świadomie rozwija wiedzę w zakresie wybranej przez siebie specjalizacji.	CH_U08	4	
W4-CH-S2-4-SDB_03	Umie rozwiązywać problemy związane z budową, reaktywnością oraz wzajemnymi oddziaływaniami molekuł.	CH_U02	3	
W4-CH-S2-4-SDB_04	Potrafi wnioskować na podstawie danych literaturowych oraz odnosić się do tych danych krytycznie.	CH_U01	4	
W4-CH-S2-4-SDB_05	Wykazuje umiejętność asocjacji wiedzy z różnych gałęzi chemii i nauk pokrewnych, i potrafi wytłumaczyć określone problemy z dziedziny biologii, ochrony środowiska, farmacji, czy medycyny.	CH_U04 CH_U09	3 4	
W4-CH-S2-4-SDB_06	Potrafi przedstawić w mowie i piśmie wyniki badań własnych lub cudzych.	CH_U05 CH_U09	5 4	
W4-CH-S2-4-	Przygotowuje i prezentuje wystąpienia ustne w języku polskim i/lub angielskim dotyczące zagadnień z dziedziny chemii i			

SDB_07	nauk pokrewnych o charakterze popularnonaukowym i specjalistycznym.	CH_U05 CH_U06	4 4
W4-CH-S2-4-SDB_08	Potrafi inspirować i organizować procesy uczenia się innych osób.	CH_K02	5
W4-CH-S2-4-SDB_09	Rozumie znaczenie uczciwości intelektualnej i postępuje etycznie.	CH_K04 CH_W08	4 2
W4-CH-S2-4-SDB_10	Posiada rozwinięty nawyk korzystania z obiektywnych źródeł informacji naukowej oraz posługiwania się zasadami krytycznego wnioskowania przy rozstrzyganiu problemów praktycznych.	CH_K01	3

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>
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>
b09	Problem-solving methods	Activating method – flipped classroom <i>anticipatory learning; work in class is based on previously studied material indicated by the person teaching the course; preparation outside the classroom serves the purpose of getting familiar with the issues whose knowledge is necessary for participating in the in-class discussion and the training in the related practical skills; the activity is based on the work of students under the guidance of the person teaching the course</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>
d01	Programmed learning methods	Working with a computer <i>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</i>
d03	Programmed learning methods	Working with another teaching tool <i>e.g. using websites in any way or according to the rules set by the teacher; or making use of other subject-specific tools</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>

f01	Methods of self-learning	Self-education <i>a method which involves independent acquisition of knowledge, skills and social competences, extending their scope and quality; complementary to the learning process taking place in class; taking on the task of developing and adjusting qualifications on one's own; self-study</i>
f02	Methods of self-learning	Individual work with a text <i>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</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
W4-CH-S2-4-SDB_sf_1	seminar	30	course work	W4-CH-S2-4-SDB_01, W4-CH-S2-4-SDB_02, W4-CH-S2-4-SDB_03, W4-CH-S2-4-SDB_04, W4-CH-S2-4-SDB_05, W4-CH-S2-4-SDB_06, W4-CH-S2-4-SDB_07, W4-CH-S2-4-SDB_08, W4-CH-S2-4-SDB_09, W4-CH-S2-4-SDB_10	b04, b05, b09, c07, d01, d03, e08, f01, f02

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>	Yes
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
b03	Consulting the curriculum and the organization of classes	Consulting the schedule <i>getting acquainted with the class schedule, possibly in the presence of the year tutor, in order to optimize participation in classes, including those supplementary to the core subjects listed in the pursued study programme</i>	Yes
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/	Yes

		<p>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></p>	
e01	Activities complementary to the classes	<p>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></p>	No
e03	Activities complementary to the classes	<p>Participation in non-obligatory teaching, research or organizational grants intensifying the achievement of the assumed learning outcomes <i>research, artistic, social and other activities not indicated in the curriculum, undertaken on the student's own initiative as a way of supplementing, enriching or extending the content and activities indicated in the module curriculum, intensifying the achievement of learning outcomes</i></p>	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>.