

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		Optional workshops
Module code		W4-CH-S2-3-WF
Number of the ECTS credits		3
Language of instruction		Polish
Purpose and description of the content of education		Celem modułu jest zapoznanie studentów z problemami współczesnej chemii z uwzględnieniem zagadnień z nauk pokrewnych. W ramach tego modułu studenci poszerzają swoją wiedzę i umiejętności z chemii oraz dyscyplin pokrewnych. Zajęcia prowadzone w formie warsztatowej pozwalające również na rozwinięcie kompetencji takich jak praca w grupie, samodzielność, kreatywność.
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-S2-3-WF_01	Umie samodzielnie oraz w zespole dobrać właściwe metody i narzędzia do wykonania pracy badawczej; zaplanować oraz wykonać pomiary, oznaczenia, analizy z użyciem specjalistycznego sprzętu laboratoryjnego i/lub pakietów obliczeniowych.	CH_U01		3
		CH_U07		3
		CH_W01		4
		CH_W02		5
W4-CH-S2-3-WF_02	Ma pogłębioną wiedzę z chemii i/lub nauk pokrewnych	CH_W01		5
		CH_W06		3
		CH_W07		2
W4-CH-S2-3-WF_03	Potrafi stosować specjalistyczną terminologię chemiczną,	CH_U07		3
		CH_W01		5
		CH_W02		5
W4-CH-S2-3-WF_04	Potrafi samodzielnie analizować i opracować wyniki przeprowadzonych eksperymentów i/lub obliczeń teoretycznych	CH_K01		4
		CH_U01		5
		CH_U08		2
		CH_W06		3

9. Methods of conducting classes		
Code	Category	Name (description)
a01	Lecture methods / expository methods	Formal lecture/ course-related lecture <i>a systematic course of study involving a synthetic presentation of an academic discipline; its implementation assumes a passive reception of the information provided</i>
b02	Problem-solving methods	Lecture-discussion <i>transmission of content involving interaction with the lecture audience; discussion of lecture-related issues is one of its elements or constitutes its follow-up</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>
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>
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-S2-3-WF_sf_1	workshop	30	course work	W4-CH-S2-3-WF_01, W4-CH-S2-3-WF_02, W4-CH-S2-3-WF_03, W4-CH-S2-3-WF_04	a01, b02, d01, e01, 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
a03	Preparation for classes	Developing practical skills <i>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)</i>	Yes
a04	Preparation for classes	Consulting materials complementary to those indicated in the syllabus	Yes

		<i>agreeing on materials complementary to those indicated in the syllabus, supporting the implementation of tasks resulting from or necessary for class participation</i>	
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>	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/ 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
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>.