

Subject card

Subject name and code	Advanced chemistry, PG_00080905						
Field of study	Chemical Business						
Date of commencement of studies	February 2025	Academic year of realisation of subject				2024/2025	
Education level	postgraduate studies	Subject group				Obligatory subject group in the field of study	
Mode of study	full-time studies	Mode of delivery				at the university	
Year of study	1	Language of instruction				Polish	
Semester of study	1	ECTS credits				16.0	
Learning profile	academic	Assessment form					
Conducting unit	Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Joanna Makowska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	180.0	0.0	0.0	180
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	180		60.0		160.0	400
Subject objectives	<p>Introducing students to the current research topics of each department Making familiar with the laboratory equipment of each department</p> <p>Developing skills in using specialized equipment and/or software</p> <p>Presentation of the potential Masters Thesis subjects, possible to realize in a given unit</p>						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BCHMU2_W02] Knows and understands the axiological conditions regarding the use of modern measuring techniques and instruments as well as IT tools in chemistry, including economic aspects.	Student: knows the current research topics of the departments knows the equipment facilities used for their implementation knows the structure and principle of operation of the research equipment used during the course knows the subject of research work that can be carried out in a given department	[SW5] implementation of a problem task
	[BCHMU2_K01] Is willing to develop and disseminate appropriate best practices at and outside the workplace.	Student: works alone and/or in a group appropriately determines the priorities for the implementation of research work performs an appropriate self-assessment and takes appropriate actions to improve their qualifications	[SK6] demonstration of practical skills
	[BCHMU2_K04] Is willing to properly assess the acquired knowledge, respect and disseminate it in order to solve specific cognitive and practical issues.	<ul style="list-style-type: none"> - Student is critical in expressing opinions and is open to the opinions of co-discussants. - Student independently uses literature databases and critically selects source texts - By reading scientific texts, the student learns to analyze and synthesize information, extract key concepts and understand complex chemical issues. 	[SK2] presentation/project/paper/report
	[BCHMU2_W01] Knows and understands complex physicochemical processes and is able to analyse their course in connection with other fields of science.	<ul style="list-style-type: none"> - Student has the ability to recognize and understand specialized terms in the field of chemistry related to research topics in a given department and is able to correctly analyze the observed physicochemical processes; - Student acquires skills in broader analysis of chemical data in connection with other fields of science 	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[BCHMU2_K02] Is willing to create and manage group work plans and to take responsibility for the work of the whole team, properly assess their work and individual team members.	<ul style="list-style-type: none"> - Student identifies the stages, operations and devices involved in production. The student uses his knowledge in practice. - Student is aware of the need to critically analyze his or her own work - The student appreciates the need to be able to work in a team in accordance with his or her role in it (group leader/group member) 	[SK8] observation of student's independent or team work
	[BCHMU2_U01] Is able to, on the basis of her/his knowledge, propose a solution to problems in chemistry, taking into account the economic aspect by using advanced measurement techniques.	<ul style="list-style-type: none"> - Student is able to define a clear goal or task that he wants to achieve. - Student uses his knowledge in practice. He works on projects, experiments and is creative. - Student understands exactly how the technological process works. Identifies the stages, operations and equipment involved in production. 	[SU5] implementation of a problem task

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Subject contents	The program content is diverse and adapted to the scope of research work carried out in a given department									
Prerequisites and co-requisites										
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Example issues/ example questions/ tasks being completed										
Work placement	Not applicable									

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