

Subject card

Subject name and code	M.Sc. seminar - Chemistry, PG_00144202						
Field of study	Chemical Business						
Date of commencement of studies	February 2027		Academic year of realisation of subject			2027/2028	
Education level	Master's studies		Subject group			Obligatory subject group in the field of study Optional subject group Subject group related to scientific research 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	2		ECTS credits			4.0	
Learning profile	academic		Assessment form			credit	
Conducting unit	Faculty of Chemistry -> Rector						
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	0.0	0.0	30.0	30
	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	30		5.0		65.0	100
Subject objectives	Development of in-depth skills in preparing and presenting oral presentations in Polish, mainly in the field of subjects related to master thesis Preparation for independent collection and processing of scientific information based on literature searches Knowledge of the principles of preparing and writing substantive and formally correct simple scientific publications, with particular emphasis on the master thesis. Monitoring the progress of each student's project work in the framework of the parallel masters' workshop						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BCHMU2_U02] Is able to define her/his interests, develop them within the chosen direction and in connection with the subject of her/his master's thesis by implementing the process of self-education and planning her/his professional career.	- Student uses his knowledge in practice. He works on projects, experiments and is creative. - Student knows his or her strengths. Knows how to conduct professional exploration in the future. Is able to regularly assess his progress and adapt his actions to new challenges	[SU5] implementation of a problem task
	[BCHMU2_K04] Is willing to properly assess the acquired knowledge, respect and disseminate it in order to solve specific cognitive and practical issues.	-Student is prepared to evaluate the acquired knowledge, respect it and disseminate it - Student knows that reliable knowledge allows for effective solving of cognitive and practical issues.	[SK5] implementation of a problem task
	[BCHMU2_U03] Is able to present, based on the current state of knowledge, scientific discoveries and the results of own research in the field of chemical and economic sciences, by skilfully conducting debates and public speaking.	-Student is able to prepare a speech or written work (report, description) both in Polish and English, correctly arguing his or her conclusions in the field of chemistry. Knows how to correctly interpret and analyze related information with basic chemical laws. Respects the knowledge of co-discussants.	[SU2] presentation/project/paper/report
	[BCHMU2_W07] Knows and understands legal and economic systems of organization and management of human resources, patent information and intellectual property resources related to the chemical industry and other sectors of the economy.	Student knows the basic concepts and principles related to the protection of intellectual property. Knows the principles of copyright law, patent law, trademark law, industrial design law, and trade secret law	[SW3] text preparation/written work
	[BCHMU2_U07] Is able to use English in chemistry in accordance with the requirements specified for level B2+ of the Common European Framework of Reference for Languages and specialised terminology.	Student: • shows substantive preparation to use chemical literature • demonstrates enhanced ability to understand scientific texts in the field of chemistry in both Polish and English; • develops and uses literature information on the scientific subject matter of his experimental work in the master's workshop, in order to present them in the master's thesis being prepared; • logical and clear presentation of the topic in the form of an oral presentation with a multimedia presentation; • participates in the discussion in a substantive way and shows interest in the topics presented by other speakers.	[SU2] presentation/project/paper/report
	[BCHMU2_W06] Knows and understands tasks in the field of chemistry, environmental protection and economics that are the subject of human activity to the extent that allows independent work on a research, scientific and measuring position.	Student: • demonstrates basic knowledge of legal and ethical conditions related to scientific activity, including protection of intellectual property and copyright; • demonstrates general knowledge of the broadly understood chemistry and biochemistry of amino acids, peptides and proteins and their derivatives. • presents extended knowledge about current directions of development and the latest scientific achievements in the field of the subject of the master's thesis he has undertaken.	[SW2] presentation/project/paper/report

	Course outcome	Subject outcome	Method of verification
	[BCHMU2_K08] Is willing to develop appropriate best practices and take up challenges in the professional and public sphere, taking into account the principles of professional ethics.	Student: • remains critical in expressing opinions and remains open to the opinion of the environment • is active in expanding knowledge on the subject related to the undertaken master's thesis and understands the need to constantly expand knowledge and skills • works independently on exploring English-language literature on the topic of the master's thesis and problem tasks • engages in scientific discussions • demonstrates responsibility for the reliability of the scientific information provided	[SK1] oral statement/conversation/discussion
	[BCHMU2_U05] Is able to choose and apply, based on the literature of chemical sciences in Polish and English, appropriate methods and tools for solving problems in chemistry and related sciences.	Students argue their conclusions in chemistry, interpret and analyze related information with fundamental chemical and economic laws. - By reading scientific texts, the student learns to analyze and synthesize information, extract key concepts and understand complex issues.	[SU5] implementation of a problem task
Subject contents	Rules for searching, collecting and processing scientific information based on various types of literature sources and databases in Polish and English. Principles of written preparation and editing of substantive and formally correct simple scientific publications, with particular emphasis on the thesis in the field of exact and natural sciences. Rules for preparing substantive and formally correct oral presentations at the popular science level in Polish, using multimedia techniques		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Preparation and presentation of several speeches based on current literature reports on research topics	100.0%	100.0%
Recommended reading	Basic literature	Literature required to pass the course A.1. Literature used during classes: Books and scientific articles related to the topic of master thesis A.2. Literature for individual studies: Books and scientific articles related to the topic of master thesis	
	Supplementary literature	Extracurricular readings Books and scientific articles related to the topic of master thesis	
	eResources addresses		
Example issues/ example questions/ tasks being completed			

Work placement	Not applicable
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