University of Gdańsk

Subject card

Subject name and code	Specialised laboratory practice, PG_00103633						
Field of study	Environmental Protection						
Date of commencement of studies	October 2025		Academic year of realisation of subject	2025/2026			
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	6.0			
Learning profile	academic		Assessment form	credit			
Conducting unit							
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	90.0	0.0	0.0	90
	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	90		15.0		45.0	150
Subject objectives	Substantive and/or practical preparation for the experimental part of the master's thesis						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[OŚMU2_U05] Searches, selects and analyses the literature achievements of environmental sciences, including scientific journals and databases, reading and understanding scientific texts in her/his native language and in English.	-Student independently uses literature databases and critically selects source texts in both Polish and English. - Student is aware of the consequences of disregarding intellectual property and the abuse of artificial intelligence tools in scientific and research work.	[SU2] presentation/project/paper/ report [SU3] text preparation/written work
	[OŚMU2_U06] Defines her/his interests and develops them within the chosen specialisation and themes of her/his master's thesis while implementing the process of self-education and planning of own future 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
	[OŚMU2_K06] Recognises the importance of knowledge in solving encountered cognitive and practical problems and consults experts in the event of difficulties in solving a problem on her/his own.	- By reading scientific texts, the student learns to analyze and synthesize information, extract key concepts and understand complex chemical issues. - Student develops the ability to think critically and assess the quality of information regarding the research context and evaluate the results, also based on the opinion of experts. - Student is aware of the need to critically analyze his or her own work	[SK1] oral statement/conversation/ discussion
	[OŚMU2_K02] Recognises threats, creates safe work conditions and is responsible for the safety of own and other people's work.	verifies the level of one's knowledge and skills; understands the need for continuous professional education and personal development demonstrates creativity in independent and team work; is characterized by perseverance in taking on personal and professional challenges is able to work in a group, taking on various roles is responsible for the safety of his own and others' work; knows how to act in emergency situations, is careful when dealing with chemical substances, is prudent when dealing with measuring equipment; understands the need to comply with the principles of professional ethics	[SK8] observation of student's independent or team work

Course outcome	Subject outcome	Method of verification
[OŚMU2_U08] Prepares a master's thesis using the appropriate methodology to prepare and write a scientific thesis containing a description and justification of the purpose of the thesis based on the current state of knowledge in a given topic as well as research methodology, results and their discussion.	Student: demonstrates the ability to conduct experiments related to the master's thesis; uses simple and advanced methods, techniques and tools to achieve the intended goals fluently searches for information in the literature on the subject (Polish and English) demonstrates the ability to write a master's thesis in Polish and a short scientific report in a foreign language based on their own research talks about issues related to the master's thesis in an understandable language; is able to define their interests and develop them within the selected specialization and the subject of the master's thesis; carries out the process of self-education and future career planning	[SU3] text preparation/written work
[OŚMU2_W09] Applies safety and hygiene principles when working independently on a test or measurement stand in a laboratory or in the field.	Student: knows complex phenomena and processes occurring in nature, including those related to the spread of anthropogenic pollution; explains and explains the phenomena observed during the research carried out as part of the master's thesis recognizes and characterizes methods, techniques and research tools used in environmental protection; selects the appropriate research methods to complete the master's thesis characterizes the directions of development and knows the latest discoveries in the field of research carried out as part of the master's thesis knows and applies the rules of safety and hygiene when performing work on a research or measurement stand in a laboratory or in the field	[SW5] implementation of a problem task

Subject contents	The program content is varied and adapted to the scope of the master's thesis.
Prerequisites and co-requisites	First-cycle studies in chemistry, environmental protection, chemical engineering and related fields. Knowledge of basic issues in the field of environmental protection and/or related scientific fields.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Preparation and presentation of several multimedia speeches on the topic being implemented	100.0%	100.0%

Recommended reading	Basic literature	A. Literature required for the final completion of the course (passing the exam): A.1. used during classes Books and scientific articles related to the subject of the master's thesis A.2. studied by the student alone Books and scientific articles related to the subject of the master's thesis
	Supplementary literature	B. Supplementary Literature Books and scientific articles related to the subject of the master's thesis
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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