



Subject card

Subject name and code	Thesis Laboratory, PG_00052336						
Field of study	Chemistry						
Date of commencement of studies	October 2023		Academic year of realisation of subject		2026/2027		
Education level	first-cycle studies		Subject group				
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	4		Language of instruction		Polish		
Semester of study	7		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Inorganic Chemistry -> Faculty of Chemistry -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Bartłomiej Cieślík				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	60.0	0.0	0.0	60
	E-learning hours included: 0.0						
	eNauczanie source address: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=14893						
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	60		5.0		10.0	75
Subject objectives	Implementation of the experimental part of the diploma thesis						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U82] is able to obtain and process information related to field of study and academic environment in foreign language at B2 level of the Common European Framework of Reference for Languages (CEFR)		Student is able to obtain information from databases available at the university		[SU2] Assessment of ability to analyse information		
	[K6_U02] can work individually and in a team; he/she can assess the necessary task time and plan and organize individual work and in a small team in a way that ensures the execution of the task within a set deadline		Student is able to organize individual and team activities necessary to complete the experimental part of the diploma thesis on time		[SU1] Assessment of task fulfilment		
	[K6_U10] is able to make a preliminary economic analysis of the engineering activities undertaken		Student is able to estimate the cost of activities undertaken as part of the implementation of the experimental part of the diploma thesis		[SU1] Assessment of task fulfilment		
Subject contents	Course content – laboratory During the course, students are expected to independently plan and organize laboratory work, utilizing the resources available in the analytical laboratory and in collaboration with the research team. Students learn how to properly select research methods and equipment based on the intended purpose of the experiment. Preparing samples for analysis using dedicated laboratory techniques and ensuring their quality for subsequent analysis is also crucial. A key part of the course involves conducting analyses using advanced spectrometers such as ASA, AES, MIP-OES, and ICP-MS. Students acquire practical skills in operating modern equipment and learn the capabilities and limitations of individual techniques. During the experiment, students optimize and validate the analytical procedures used, which allows for improved results. The next step is the development of large experimental data sets, their ongoing analysis, and interpretation using chemical statistics tools. The ultimate result of laboratory work is the preparation of results in the form of clear summaries, tables, and graphs, and their description in accordance with accepted engineering and scientific reporting standards. This allows students to develop competencies not only in planning and conducting research, but also in presenting and evaluating its results.						
Prerequisites and co-requisites	none						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Assessment of the experimental part of diploma theses	0.0%	100.0%
Recommended reading	Basic literature	depends on the topic of the diploma thesis, original papers available at the databases	
	Supplementary literature	none	
	eResources addresses		
Example issues/ example questions/ tasks being completed	none		
Practical activities within the subject	Not applicable		

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