GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Diploma laboratories, PG_00047615						
Field of study	Chemistry						
Date of commencement of studies	February 2024		Academic year of realisation of subject	2024/2025			
Education level	second-cycle studies		Subject group				
Mode of study	Full-time studies		Mode of delivery	at the university			
Year of study	2		Language of instruction	Polish			
Semester of study	3		ECTS credits	5.0			
Learning profile	general academic profile		Assessment form	assessment			
Conducting unit	Department of Inorganic Chemistry -> Faculty of Chemistry -> Wydziały Politechniki Gdańskiej						
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. inż. Anna Dołęga				
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	75.0	0.0	0.0	75
	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	75		10.0	40.0	125	
Subject objectives	The aim of the course is to prepare the student for independent laboratory research in the field of chemistry, including: • improving the ability to practically apply chemical methods and analytical techniques, • developing skills in planning and conducting experiments and analyzing results, • fostering the ability to work both individually and in a team in the laboratory, • enhancing competences in documenting and presenting research outcomes in accordance with principles of scientific ethics and communication.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
K7_W03	The student possesses structured and advanced knowledge of modern chemistry, including the properties and synthesis of chemical compounds and the relationship between a compound's structure and its reactivity. The student knows the analytical methods and techniques used in chemical laboratories, including spectroscopy and chromatography, as well as principles of safe laboratory practice. The student understands the significance of experimental results in the context of technical and scientific problems	[SW3] Assessment of knowledge contained in written work and projects
K7_U01	The student is able to obtain information from specialist literature and databases (including in English), integrate, interpret, critically evaluate it, and draw conclusions.	[SU1] Assessment of task fulfilment
K7_U02	The student is able to independently plan, conduct, and document chemical experiments. The student is able to use laboratory techniques, including infrared spectroscopy, for the analysis of chemical compounds. The student is able to analyze experimental results, draw conclusions, and prepare reports and presentations of research findings in accordance with scientific communication principles.	[SU5] Assessment of ability to present the results of task
K7_K01	The student understands the need for lifelong learning and is able to inspire and support the learning process of others in a scientific environment.	[SK5] Assessment of ability to solve problems that arise in practice

Subject contents

Will be determined during the course of the subject (synthesis of gold complex compounds).

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
evaluation of the report	50.0%	100.0%

Recommended reading

Basic literature	Barberá, Joaquín, et al. "(Pyrazolato) gold complexes showing room-temperature columnar mesophases. Synthesis, properties, and structural characterization." *Inorganic Chemistry* 37.12 (1998): 2960-2967.
Supplementary literature	Mota, Vinicius Zamprogno, et al. "Gold complexes with benzimidazole derivatives: synthesis, characterization and biological studies." *Biometals* 27.1 (2014): 183-194.
eResources addresses	

Example issues/ example questions/ tasks being completed

None

Work placement

Not applicable

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