University of Gdańsk

Subject card

Subject name and code	Didactics of chemistry in a high school, PG_00142582						
Field of study	Chemistry						
Date of commencement of studies	October 2025		Academic year of realisation of subject	2026/2027			
Education level	Master's studies		Subject group	Obligatory subject group in the field of study Optional 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	2.0			
Learning profile	academic		Assessment form	credit			
Conducting unit	Division of Didactics and Popular Science -> Faculty of Chemistry -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor	dr Bożena Karawajczyk					
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	0.0	0.0	0.0	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	15.0	50	
Subject objectives	Acquire knowledge of chemistry didactics necessary to practice as a secondary school chemistry teacher						

Learning outcomes	Course outcome	Subject outcome	Method of verification
		Learning outcomes in accordance with the Announcement of the Minister of Science of February 9, 2024 on the announcement of the consolidated text of the Regulation of the Minister of Science and Higher Education on the standard of education preparing for the teaching profession. In terms of knowledge, the graduate knows and understands: D.1/E.1.W3. intra- and inter-subject integration; issues related to. related to curriculum - creation and modification, analysis, evaluation, selection and approval, and the principles of designing the educational process and the distribution of material; D.1/E.1.W4. the substantive, didactic and educational competence of the teacher, including the the need for professional development, including with the use of technology information and communication technology, and to adapt the way of communication to the level of development of students and stimulate cognitive activity secondary school students, including the creation of teaching situations; the importance of the authority of the of the teacher and the principles of student-teacher interaction in the course of a lesson; moderating interaction between students; the role of the teacher as a popularizer of knowledge, and the importance of the teacher's cooperation in the didactic process with parents or guardians of students, secondary school staff and the environment out-of-school environment; D.1/E.1.W5. conventional and unconventional teaching methods, including the activating and project methods, the process of learning by doing, discovery or scientific inquiry, and student research work, as well as the principles of selection of teaching methods typical for a particular subject or type of class; D.1/E.1.W6. the methodology of implementation of individual educational content within the subject or classes - substantive and methodological solutions, good practices, adaptation of interactions to the needs and capabilities of students or groups of students with different potential and learning style, typical mistakes of the subject or type of classes students, their role and ways to use them in the teaching process; D.1/E.1.W10. The role of diagnosis, control and assessment in teaching work; assessment and its types: current assessment, semester and annual assessment,	

Course outcome	Subject outcome	Method of verification
	internal assessment and external assessment; functions of assessment; D.1/E.1.W12. Initial diagnosis of the student group and each student in the context of the taught subject or classes taught, and ways to support the cognitive development of cognitive development of students; the need to form concepts, attitudes, skills practical, including problem solving, and use of knowledge; methods and techniques for effective learning; methods for structuring knowledge; and the the need for repetition and consolidation of knowledge and skills; D.1/E.1.W13. the importance of developing personal and social- emotional skills students: the need to develop students' cooperation skills, including group problem solving, as well as building a system of values and developing ethical attitudes of students, as well as the formation of competence communication and cultural habits; In terms of skills, the graduate is able to: D.1/E.1.U1. identify typical school tasks with the goals of education, in particular with the general requirements of the core curriculum, and with the competencies of the key competencies; D.1/E.1.U7. select classroom methods and teaching resources, including those of information and communication technology, activating students and taking into account their differentiated educational needs; D.1/E.1.U9. construct a test to assess the given skills of students; In terms of social competence, the graduate is ready to: D.1/E.1.K1. adapt working methods to the needs and different learning styles of students in secondary school	

Subject contents	Application of formative assessment strategies in secondary school. Ways to implement the indicated educational content at the secondary level. Problem-based teaching.
Prerequisites and co-requisites	Course credit: Didactics of chemistry in elementary school

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Completion of all credit work	51.0%	100.0%

Recommended reading	Basic literature	A. Burewicz, H. Gulińska (red.), "Dydaktyka chemii", Wydawnictwo naukowe UAM, 2002 J. D. Herron, Lekcja chemii. O skutecznym sposobie uczenia, PWN, 2000 Textbooks for teaching chemistry in secondary school approved for school use by the decision of the Minister of National Education

	Supplementary literature	Current materials for teachers published by the Center for Education Development and the Institute of Educational Research
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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