

Subject card

Subject name and code	Practical chemistry, PG_00211772						
Field of study	Forensic Analytics						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2027/2028		
Education level	Bachelor'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	Laboratory of Carbohydrate Chemistry -> Department of Organic Chemistry -> Faculty of Chemistry -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Janusz Madaj, prof. UG				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	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	Learning information that allows you to form your own opinion and enable you to critically look at information often presented in the mass media, in advertisements and by pseudo-experts. Using the knowledge acquired during studies to properly assess chemical problems in everyday life.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[AKRL3_K01] The graduate is prepared to critically evaluate their own knowledge and its relevance to solving cognitive, practical, and societal problems, as well as to responsibly make use of expert opinions.	Understands the need for further learning; recognizes the role of knowledge in the development of the economy and society, understands the benefits and dangers of using chemistry in the life of society, is a source of knowledge about chemical aspects of everyday life in its immediate environment, shapes positive image of chemistry in society.	[SK4] test/exam - oral or written
	[AKRL3_U08] The graduate is able to prepare oral and written presentations and reports in Polish and in chosen foreign language, as well as present and evaluate different viewpoints and engage in discussion in those languages.	1. uses chemical terminology to the extent necessary to present (in written and oral form) the subject matter of the course 2. predicts the course of selected chemical reactions and the products of these transformations 3. applies acquired knowledge to critically evaluate information from various sources	[SU4] test/exam - oral or written
	[AKRL3_W01] The graduate knows and understands, at an advanced level, the laws and theories in the field of chemistry, as well as the basics of biology, mathematics and law constituting general knowledge in the scientific disciplines forming the theoretical foundations relevant to the study program.	Lists unusual aspects of chemistry in everyday life and can use it acquired knowledge in the selection of the basic chemical components of life everyday life, can characterize the basic ingredients of food and chemicals economy, can make choices about chemical products in life everyday.	[SW4] test/exam - oral or written
	[AKRL3_U09] The graduate is able to independently plan and implement their professional development and lifelong learning.	Based on the acquired knowledge, he is able to make the right choices of food preservation methods so that they do not lose their properties, the acquired basic knowledge of jewelry allows him to orient himself in the world of precious objects, he is able to apply the acquired knowledge in everyday life	[SU4] test/exam - oral or written
Subject contents	Selected issues in food chemistry - nutrients (sugars, proteins and fats), natural and artificial dyes, substances affecting the taste and smell of food, vitamins and minerals, preservatives, unwanted ingredients (allergens, toxins, dangerous substances generated during processing thermal food and its packaging). Elements of household chemicals - detergents and soaps, washing powders, foils and other materials used for storing food, the principle of operation of simple and more advanced water filters. There will also be information about precious stones, explosives and psychotropic substances. The lecture presents unusual chemical aspects of these topics.		
Prerequisites and co-requisites	passed the subject "General Chemistry" and "Organic Chemistry"		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written assessment	51.0%	100.0%
Recommended reading	Basic literature	Ali El Ali Speight, Handbook of Industrial Chemistry Organic Chemicals	
	Supplementary literature	non	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Consistent with the content of the lecture		
Work placement	Not applicable		

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