

Subject card

Subject name and code	Chemistry in practice, PG_00081883						
Field of study	Chemistry						
Date of commencement of studies	October 2025		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 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	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		3.0		
Learning profile	academic		Assessment form		exam		
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				
	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		40.0	75
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
	[CHEML3_W03] Explains the relationship between the structure of matter and its observed properties.	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
	[CHEML3_U01] Identifies, analyses and solves problems in the field of broadly understood chemistry on the basis of the acquired knowledge.	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
	[CHEML3_K01] Identifies the level of her/his own knowledge and skills and the need for continuous learning and personal development.	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
	[CHEML3_K07] Appreciates the need for understandable presentation of selected chemical issues to the public.	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
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 exam	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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