



## Subject card

Subject name and code	Technology of cosmetics, PG_00052345						
Field of study	Chemical Technology						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2023/2024		
Education level	first-cycle studies	Subject group			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	4	Language of instruction			Polish		
Semester of study	7	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Colloid and Lipid Science -> Faculty of Chemistry						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Adam Macierzanka					
	Teachers	dr hab. inż. Patrycja Szumała dr hab. inż. Adam Macierzanka					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	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	2.0		18.0		50
Subject objectives	Gaining knowledge of the technology of preparation, composition, analysis and the use of various groups of cosmetic products.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	K6_U09	The student has the ability to analyze fatty raw materials and their use in chemical industry products and create various forms of cosmetic preparations, sees systemic and non-technical aspects in the assessment of their properties.			[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task		
	K6_W08	The student has an organized knowledge of the chemistry and technology of fats, knows the technology of production of cosmetic products and methods for assessing their properties			[SW1] Assessment of factual knowledge		
Subject contents	Structure and function of human skin. Compounds reported to increase the skin barrier. Types of cosmetic products and their effects. Materials used in cosmetics and criteria of their selection, with particular emphasis on biologically active materials. Cosmetic emulsions and their structure and stabilization methods. The surfactants in cosmetics. The technology for producing various types of cosmetic emulsions. Haircare: shampoos, conditioners, conditioning cosmetics. Make-up cosmetics. Powders, shadows, mascaras, lipstick, etc. Technology of perfume products. Technology of deodorants. Regulations concerning cosmetic materials and cosmetic products.						
Prerequisites and co-requisites	Basic knowledge of organic chemistry and selected analytical methods.						
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	Laboratory	100.0%			40.0%		
	Written exam	50.0%			60.0%		

Recommended reading	Basic literature	1. J. Marcinkiewicz - Salmonowiczowa, Zarys chemii i technologii kosmetyków, Wyd. Politechniki Gdańskiej, Gdańsk, 1995. 2. W.S. Brud, R. Glinka, Technologia Kosmetyków, Oficyna Wydawnicza, Łódź, 2001. 3. M.M. Rieger, Surfactants in Cosmetics, M. Dekker, Inc. New York, 1985. 4. L. Ho Tan Tai, Formulating Detergents and Personal Care Products, AOCS Press, Champaign, 2000. 5. Analysis of Cosmetic Products, ed. A. Salvador, A.Chisvert, Elsevier, Amsterdam, 2007.
	Supplementary literature	6. J. Przondo, Związki powierzchniowo czynne i ich zastosowanie w produktach chemii gospodarczej, Wydawnictwo Politechniki Radomskiej, 2007. 7. K. Gawrońska, K. Kacprzak, Chemia kosmetyczna: ćwiczenia laboratoryjne; UAM, Warszawa 2008. 8. R. Glinka, M. Glinka; Receptura kosmetyczna z elementami kosmetologii: tom 1; Oficyna Wydawnicza MA, Łódź, 2008
	eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	Those will be directly related to the topics described above in the "Class structure" section.	
Work placement	Not applicable	