



Subject card

Subject name and code	SCIENTIFIC VALIDATION OF COSMETICS, PG_00064320						
Field of study	WERYFIKACJA NAUKOWA DZIAŁANIA KOSMETYKÓW						
Date of commencement of studies	February 2026		Academic year of realisation of subject		2025/2026		
Education level	second-cycle studies		Subject group		Optional subject group Specialty 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	1		Language of instruction		Polish		
Semester of study	1		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Biotechnology and Microbiology -> Faculty of Chemistry -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Patrycja Szumała				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	15.0	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	The aim of the course is to introduce students to scientific research that verifies the effect or lack of effect of selected cosmetic ingredients and products, their production and the legal requirements that are imposed on such ingredients and products.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W04] recognises scientific, technological, organisational and economic opportunities and constraints in technology and related fields		Can explain the actual way cosmetics work and the methods used to evaluate their effects		[SW3] Ocena wiedzy zawartej w opracowaniu tekstowym i projektowym		
	[K7_U06] applies computer, statistical and specialised database methods to solve scientific and technological problems in technology and related fields		Is able to find information from scientific databases confirming the effectiveness or lack of effectiveness of cosmetic ingredients		[SU2] Ocena umiejętności analizy informacji		
	[K7_K01] critically evaluates the content of cognitive and practical problems		Knows the social and economic perception of the effects of cosmetics and is able to verify this knowledge		[SK5] Ocena umiejętności rozwiązywania problemów występujących w praktyce		
Subject contents	Course content – lecture Issues related to the structure of the skin, which affects the penetration of cosmetic ingredients into the skin; controversial ingredients (e.g. preservatives, dyes, UV filters, surfactants). Raising awareness and scientific verification of the actual significance of ingredients with the prefix "bio" or "organic", etc., in cosmetics, their actual origin and effect on the human body. Legal regulations inhibiting/limiting the possibilities of using selected ingredients.						
Prerequisites and co-requisites	Basic knowledge of chemistry and biology.						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	written test		60.0%		60.0%		
	presentation		100.0%		40.0%		

Recommended reading	Basic literature	Martini C., Kosmetologia i farmakologia skóry, Wydawnictwo Lekarskie PZWL, Warszawa, 2007 Barel A., Paye M., Maibach H., Handbook of Cosmetic Science and Technology, wyd. III, Londyn, Informa Health Care, 2009 and other cosmetic monographs
	Supplementary literature	Meryem Uckaya, Fatih Uckaya, Nazan Demir, Yasar Demir; Evaluation of the efficiency and safety in cosmetic products, International Journal of Pharmaceutics 499 (2016) 295300. Huang, Catherine K, and Timothy A Miller. The truth about over-the-counter topical anti-aging products: a comprehensive review. Aesthetic surgery journal vol. 27,4 (2007): 402-12 and other scientific publications about cosmetic ingredients
	eResources addresses	
Example issues/ example questions/ tasks being completed	Present scientific data on the degree of collagen penetration into the skin.	
Practical activities within the subject	Not applicable	

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