

Subject card

Subject name and code	Cosmetics chemistry, PG_00081943						
Field of study	Medical Biology						
Date of commencement of studies	October 2023	Academic year of realisation of subject				2024/2025	
Education level	postgraduate studies	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	4	ECTS credits				2.0	
Learning profile	academic	Assessment form					
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Beata Grobelna				
	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		0.0		0.0	30
Subject objectives	familiarizing students with cosmetic terminology and nomenclature.						
	familiarizing students with the properties of raw materials for the production of cosmetics.						
	developing the ability to use chemical knowledge to assess the possibility of producing selected cosmetics on an industrial scale						
	selecting optimal raw materials to obtain a specific product						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLMEDMU2_W01] has in-depth knowledge of scientific fields and disciplines relevant to medical biology and the specialty being studied, and knows their main development trends		[SW1] oral statement/conversation/discussion
	[BIOLMEDMU2_K02] is willing to recognise the importance of knowledge in solving cognitive and practical problems and to consult experts in the event of difficulties in solving the problem on his/her own		[SK8] observation of student's independent or team work
	[BIOLMEDMU2_K01] is ready to critically assess themselves, the teams they work for and the content they receive		[SK1] oral statement/conversation/discussion
	[BIOLMEDMU2_W02] is familiar with currently discussed problems in medical biology and related disciplines		[SW1] oral statement/conversation/discussion
Subject contents	Emulsion structure, properties, stages of emulsion formation, stability and instability of the emulsion system. Natural and synthetic emulsifiers, selection and operation of emulsifier, HLB emulsifier. Cosmetic emulsions: chemical characterization of raw materials, INCI nomenclature, formulation. Active ingredients in cosmetics: vitamins, liposomes, proteins, peptides, lipids, ceramides, substances of origin plant. UV filters (physical and chemical). Antimicrobial compounds (preservatives, deodorants, antiperspirants). Antioxidants: characteristics of compounds, action of antioxidants in cosmetic products. Fragrance compounds: natural and synthetic, isolation, formulation. Surface-active compounds (soaps, detergents, shampoos), their characteristics and biodegradation. Chemistry of color cosmetics: (hair dyes, blushes, powders, mascaras, lipsticks), characteristics of basic raw materials and production stages. Means used in oral hygiene (toothpastes, mouthwashes, powders and bleaches). Classification of all discussed article components cosmetics was based on functional groups or chemical systems present in the structure of the connections.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	test - open questions	51.0%	100.0%
Recommended reading	Basic literature	1. Zarys Chemii Kosmetycznej Wiesław Malinka 2. Zarys Chemii i Technologii Kosmetyków Janina Marcinkiewicz-Salmonowiczowa 3. Chemia piękna Marcin Molski 4. Technologia kosmetyków Władysław Brud, Ryszard Glinka 5. Receptura kosmetyczna Ryszard Glinka 6. "Chemia kosmetyczna" Alina Sionkowska	
	Supplementary literature	Kosmetologia i farmakologia skóry M.C.Martin	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	Name 4 preservatives. List the stages of lipstick production. List the ingredients of nail polish.		
Work placement	Not applicable		

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