

Subject card

Subject name and code	Preservatives in cosmetics, PG_00183829						
Field of study	Konserwanty w kosmetyce (Ćw. laboratoryjne)						
Date of commencement of studies	October 2026		Academic year of realisation of subject			2027/2028	
Education level	Master'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	2		Language of instruction			Polish	
Semester of study	3		ECTS credits			2.0	
Learning profile	academic		Assessment form			credit	
Conducting unit	Faculty of Chemistry -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Piotr Mucha				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	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		4.0		16.0	50
Subject objectives	The aim of the course is to familiarize students with the role of preservatives in cosmetology. The properties and mechanisms of action of selected preservatives will be discussed, as well as methods for their qualitative and quantitative determination in cosmetics. As part of the laboratory exercises, students will be able to independently identify and determine selected preservatives in cosmetic preparations.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[CHEMMU2_W12] Knows the principles of occupational health and safety to the extent that allows independent work on a research and/or measurement position.	By organizing their own workplace in the laboratory, students are able to ensure their own safety, as well as that of their surroundings and colleagues.	[SW1] wypowiedź ustna/rozmowa/ dyskusja [SW5] realizacja zadania problemowego
	[CHEMMU2_W04] Applies the acquired knowledge to an in-depth description of the properties of chemical connections, methods of their synthesis and analysis.	Based on the acquired knowledge, the student is able to propose an appropriate methodology for analyzing preservatives in cosmetics.	[SW1] wypowiedź ustna/rozmowa/ dyskusja [SW5] realizacja zadania problemowego
	[CHEMMU2_K05] Understands the need for independent search of information in scientific literature and popular science magazines.	Using the available literature, students are able to find information about the content of preservatives in cosmetics and their properties.	[SK1] wypowiedź ustna/rozmowa/ dyskusja
	[CHEMMU2_U01] Plans and implements chemical experiments of medium complexity.	The student is able to plan and carry out an experiment enabling qualitative and quantitative analysis of a preservative in a cosmetic preparation.	[SU1] wypowiedź ustna/rozmowa/ dyskusja [SU6] demonstracja umiejętności praktycznych [SU8] obserwacja samodzielnej lub zespołowej pracy studenta
	[CHEMMU2_K01] Knows the limitations of her/his own knowledge; understands the need for further education and can inspire other people to do so.	Using the available literature, the student is able to present trends in the use of specific groups of preservatives in cosmetics.	[SK1] wypowiedź ustna/rozmowa/ dyskusja [SK5] realizacja zadania problemowego
	[CHEMMU2_U05] Presents the results of research in the form of an independently written paper containing a description and justification of the purpose of the work, adopted methodology, results and their significance in comparison to other similar research.	The student is able to draw conclusions from the experiments conducted and present their results in the form of a report.	[SU1] wypowiedź ustna/rozmowa/ dyskusja [SU3] opracowanie tekstowe/ praca pisemna [SU6] demonstracja umiejętności praktycznych [SU8] obserwacja samodzielnej lub zespołowej pracy studenta
	[CHEMMU2_W10] Uses knowledge of the principles of operation of the basic scientific and research apparatus used in chemistry.	The student is able to identify preservatives in the composition of a cosmetic product using appropriate equipment.	[SW1] wypowiedź ustna/rozmowa/ dyskusja [SW2] prezentacja/projekt/referat/ raport [SW5] realizacja zadania problemowego
Subject contents	the role of preservatives in cosmetics, properties and mechanisms of action of preservatives, techniques for qualitative and quantitative analysis of preservatives, identification of preservatives in cosmetic preparations		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	activity during class	5.0%	15.0%
	report on the completed exercise	100.0%	35.0%
	performance of a laboratory exercise	100.0%	50.0%
Recommended reading	Basic literature	1. I. NOWAK, K. LATANOWICZ, A. BĘTLEWSKI, A. FELICZAK-GUZIŁ, A. WAWRZYŃCZAK, PRODUKT KOSMETYCZNY OD KONCEPCJI W LABORATORIUM DO PRODUKCJI PRZEMYSŁOWEJ, Wiad. Chem., 2022, 78, 551. 2. Małgorzata Deska, Tomasz Girek, Barbara Herman, ŚRODKI KONSERWUJĄCE W PREPARATACH KOSMETYCZNYCH I BEZPIECZENSTWO ICH STOSOWANIA, Technika, Informatyka, Inżynieria Bezpieczeństwa 2016, t. IV, s. 87108 3. Kieć-Swierczyńska M., Kręcis B., Swierczyńska-Machura D., Uczulenie na kosmetyki. II. Środki konserwujące, Med. Pracy, 2004, 55, 289292. 4. Witkiewicz Zygryd, Kałużna-Czaplińska Joanna, Podstawy chromatografii i technik elektromigracyjnych, Wydawnictwo Naukowe PWN, 2017	

	Supplementary literature	1. Miranowicz-Dzierżawska, K., Substancje konserwujące stosowane w przemyśle kosmetycznym, Bezpieczeństwo Pracy, 2017, 11, 16. 2. Lipiak, D., Konserwanty w kosmetyce. Krótki przegląd i tendencje rozwoju, Świat Przem. Kosm., 2009, 1, 48.
	eResources addresses	
Example issues/ example questions/ tasks being completed	Isolation, identification, and determination of parabens in cosmetic preparations using HPLC	
Work placement	Not applicable	

Document generated electronically. Does not require a seal or signature.