

**Study programme****Part A) of the study programme \*****Learning outcomes**

<b>Faculty offering the field of study:</b>		<b>Faculty of Chemistry</b>
<b>Field of study:</b>		<b>Cosmetic Chemistry</b>
<b>Level of study:</b>		<b>First-cycle studies</b>
<b>Level of the Polish Qualification Framework:</b>		<b>Level 6</b>
<b>Profile:</b>		<b>General academic</b>
<b>Professional degree awarded to the graduate:</b>		<b>Licencjat</b>
<b>Allocation of the field of study within academic or artistic discipline(s), to which learning outcomes for a given field of study refer::</b>		<b>Disciplines: Chemical Sciences (100 %)</b> <b>Major discipline: Chemical Sciences</b>
<b>Symbol</b>	<b>Upon completion the graduate achieves the learning outcomes specified below:</b>	
<b>KNOWLEDGE</b>		
K_W01	The graduate knows the basics of general chemistry, physical chemistry, organic chemistry and analytical chemistry.	
K_W02	The graduate knows the basics of linear algebra, mathematical analysis and statistics necessary for the description and modelling of chemical phenomena.	
K_W03	The graduate knows the role of experiments and computer simulations in chemical processes.	
K_W04	The graduate knows basic software packages for the data analysis and elaboration.	
K_W05	The graduate knows basic groups of cosmetic raw materials and methods of obtaining them.	
K_W06	The graduate knows basic methods of organic synthesis applied in the synthesis of cosmetic raw materials.	
K_W07	The graduate knows the basics of biochemistry and biochemical processes.	
K_W08	The graduate knows polymer and biopolymer groups and relevant research methods.	
K_W09	The graduate is familiar with instrumental methods applied in cosmetics research.	
K_W10	The graduate knows the structure of the skin, hair and nails and the ways to take care of them.	
K_W11	The graduate knows the concept of chemism of photo-aging processes of the skin and of cosmetic raw materials.	
K_W12	The graduate knows basic UV-filter compounds.	
K_W13	The graduate knows basic cosmetics forms and manufacturing rules.	
K_W14	The graduate knows the rules of cosmetic products composition.	
K_W15	The graduate knows the basics of rheology and regulation methods of rheology of cosmetic forms.	
K_W16	The graduate knows the chemism of processes underlying colour vision and smell perception.	
K_W17	The graduate knows the methods of producing colour cosmetics and fragrance composition.	
K_W18	The graduate knows the methods of cosmetics safety and efficiency assessment.	
K_W19	The graduate has knowledge of general microbiology.	
K_W20	The graduate knows the ways cosmetic firms operate.	
K_W21	The graduate knows basic principles of ergonomics as well as occupational health and safety regulations.	

### SKILLS

K_U01	The graduate is able to use the concepts of general chemistry, physical chemistry, organic chemistry and analytical chemistry.
K_U02	The graduate is able to describe and model chemical phenomena.
K_U03	The graduate is able to perform basic measurements of chemical quantities and is able to elaborate results of chemical experiments.
K_U04	The graduate is able to specify cosmetic raw materials.
K_U05	The graduate is able to correlate the structure of cosmetic raw materials with their cosmetic effects.
K_U06	The graduate is able to obtain cosmetic raw materials from natural sources.
K_U07	The graduate is able to synthesise raw materials by way of organic synthesis.
K_U08	The graduate is able to obtain a selected required form of a cosmetic product.
K_U09	The graduate is able to develop a simple cosmetic product.
K_U10	The graduate is able to select the colour and fragrance of a cosmetic form.
K_U11	The graduate is able to evaluate the safety and efficiency of a cosmetic product.
K_U12	The graduate is able to critically assess information on the most recent developments of cosmetic chemistry available in mass media.
K_U13	The graduate displays language skills in a modern foreign language at the intermediate level (B2 level) in daily life, in education-related situations and while preparing their diploma paper.

### SOCIAL COMPETENCES

K_K01	Analytical thinking: The graduate is able to work on his/her own and effectively with large amounts of data, to perceive interrelations between phenomena and draw correct conclusions using the principles of logic.
K_K02	Creativity: The graduate thinks creatively in order to improve existing solutions or develop new ones.
K_K03	Conscientiousness and accuracy: The graduate strives to complete a task as effectively as possible. The graduate is sensitive to details and is systematic.
K_K04	Communication skills: The graduate is able to communicate the knowledge of cosmetics to other persons effectively and clearly. The graduate adjusts the level and form of presentations to the needs and capabilities of receivers.
K_K05	Pursuit of development: The graduate is focused on the constant acquisition of new knowledge, skills and experience. The graduate acknowledges the need for constant self-improvement and increasing his/her professional skills. The graduate is aware of the limitations of their knowledge and understands the need for further education.
K_K06	Perseverance and consistency: The graduate works systematically and has a positive attitude to obstacles standing in the way of reaching the desired objectives. The graduate observes deadlines. The graduate understands the need to be systematic in all projects undertaken.
K_K07	Autonomy: The graduate implements agreed objectives on his/her own, taking autonomous and sometimes difficult decisions. The graduate is able to find information in the field literature.
K_K08	Professionalism and ethics: The graduate knows and abides by the standards binding for chemists, including ethical standards. The graduate understands the social role of the profession. The graduate understands and recognises the importance of intellectual honesty and integrity, care of one's health and of the natural environment in activities undertaken by themselves and by other persons.
K_K09	Team work: The graduate is able to establish and maintain long-term and effective collaboration with other persons. The graduate endeavours to achieve the objectives of the team by proper planning and organisation of his/her own work and the work of other persons. The graduate motivates collaborators to increase their efforts in order to achieve the assumed objectives.