KAPITAŁ LUDZKI
NARODOWA STRATEGIA SPÓJNOŚCI

Projekt współfinansowany przez Unię Europejską w ramach Europejskiego Funduszu Społecznego

UNIA EUROPEJSKA
EUROPEJSKI FUNDUSZ SPOŁECZNY

Course title	ECTS code
Technology of cosmetic products	13.3.0899

Name of unit administrating study

Faculty of Chemistry

Studies

faculty	field of study		
Faculty of Chemistry	Chemical Business	type	first tier studies (BA)
		form	full-time
		specialty	all
		specialization	all

Teaching staff

dr hab. Beata Grobelna, profesor uczelni; mgr Elżbieta Adamska

Forms of classes, the realization and number of hours

Forms of classes

Laboratory classes, Lecture

The realization of activities

classroom instruction

Number of hours

Lecture: 15 hours, Laboratory classes: 30 hours

ECTS credits

3
classes - 45 h
tutorial classes – 5 h
student's own work – 20 h

Total: 70 h - 3 ECTS

The academic cycle

2024/2025 winter semester

Type of course

obligatory

Language of instruction

polish

Teaching methods

- Teaching methods
  Experimental work
  Project courses
- multimedia-based lecture

Form and method of assessment and basic criteria for eveluation or examination requirements

Final evaluation

Graded credit

Assessment methods

- graded course credit based on individual grades obtained during the semester
- Assessment methods
  Establishing a final grade based on partial grades received during the semester
  Preparation of cosmetic products,
  Written presentation of the results
  Written test with open questions

The basic criteria for evaluation

	The basic criteria for evaluation or exam requirements The scale of grades in accordance with the applicable UG Regulations Basic assessment criteria or examination requirements Positive evaluation of a written test consisting of 10-15 open questions covering issues mentioned in the lecture content and laboratory exercises. Positive evaluation of the entrance colloquia covering the subject of performed experiments as part of laboratory exercises, preparation of the experimental part included in the curriculum and preparation of results and issues given by the lecturer. Each negative grade should be improved. It is a necessary for passing the exercises. Possible release from the final written test, for persons who obtained 5 from laboratory exercises, they were on 12 out of 15 lectures and showed exceptional activity in laboratory classes

Method of verifying required learning outcomes

Required courses and introductory requirements

A. Formal requirements

Completed general chemistry course.

B. Prerequisites

Identifies and recognizes basic inorganic and organic compounds, performs calculations using stoichiometry formulas and concentrations of solutions, performs chemical experiments on its own.

Aims of education

Aims of education

to develop the ability to independently perform cosmetic products and to solve problems during the production of cosmetics.
familiarizing students with terminology and cosmetic nomenclature.
familiarize students with the properties of raw materials for the production of cosmetics.
to develop the ability to use chemical knowledge in the assessment of the production possibilities of selected cosmetics on an industrial scale and the selection of optimal raw materials to obtain a specific product.

Course contents

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A. Lecture topics: Emulsion structure, properties, stages of emulsion formation, stability and instability of the emulsion system. Natural and synthetic emulsifiers, selection and action of the emulsifier. Cosmetic emulsions: raw material characteristics from the chemical side, INCI nomenclature, formulation. Active ingredients in cosmetics, UV filters (physical and chemical), antimicrobial compounds and antioxidants. Chemistry of colored cosmetics: characteristics of basic raw materials and production stages.
B. Laboratory exercises topics: students will use the knowledge gained during the lecture to learn practical skills related to the technology of producing selected cosmetic products. Exercises in 50% will be of a project nature (from gathering information from the client, through the qualitative and plan of quantitative composition of the cosmetic product and preparation the full product characteristics together with technical and financial documentation).

Bibliography of literature

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Literature required to pass the course

. 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. „Chemia kosmetyków" Alicja Marzec
6. Receptura kosmetyczna" Ryszard Glinka

A.2. studiowana samodzielnie przez studenta

1. „Kosmetologia i farmakologia skóry" M.C.Martini,
2. „Nowoczesna kosmetologia" Marcin Molsk

Extracurricular readings

The learning outcomes (for the field of study and specialization)	**Knowledge** Knowledge - identifies and recognizes basic cosmetics, - defines emulsion systems,

	- demonstrates knowledge of the selection of the right ingredients for cosmetic products - uses the INCI (International Nomenclature Chemical Ingridients) terminology, - locates active ingredients in cosmetic products, - distinguishes basic types of UV filters, - explains the effect of preservatives, - characterizes compounds with antioxidant activity
	Skills
	skills - performs cosmetic emulsions on its own, - independently searches for information in the cosmetics literature, - uses basic formulas from stoichiometry and concentration of solutions to calculate the right amounts of raw materials for cosmetics, - recognizes the basic equipment for the production of cosmetic products and uses it to obtain selected cosmetic products, - predicts the results of the conducted syntheses, - independently performs color cosmetics (lipsticks, mascaras, powder, blushes), for washing the body, hair and for oral care, evaluates the pH of cosmetic products,
	Social competence
	Social competence - works according to the Principles of Green Chemistry during the production of cosmetics and household chemicals, - works independently and in a team, - works carefully in dealing with raw materials for the production and analysis of cosmetic products, - maintains an environmentally friendly attitude during the production of cosmetics and shows the ideas of mutual relations between man and the environment,

Contact

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