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|---|---------------------|---------------------------------|---------------|
| <b>Level:</b> bachelor  |                     |                                 |               |
| <b>Course title:</b> Chemistry of cosmetic products   |                     |                                 | IHO-407       |
| <b>Status:</b> elective   |                     |                                 |               |
| <b>ECTS:</b> 6  |                     |                                 |               |
| <b>Requirements:</b> none   |                     |                                 |               |
| <b>Learning objectives</b><br>Introduction to the basic characteristics of the most important raw materials for the production of cosmetic and dermocosmetic products. Introduction to the structure and general characteristics of organic compounds in cosmetics and their chemical transformations. Introduction to the carriers for active ingredients in cosmetics. Gaining knowledge about the safety, stability and efficiency of the active molecules in dermocosmetic and understanding their desirable and undesirable effects. - technology in the cosmetic industry. Getting knowledge about different types of cosmetics and chemical composition of colours and fragrant substances in cosmetology. Introduction and application of nano-technology in the cosmetic industry.   |                     |                                 |               |
| <b>Learning outcomes</b><br>Demonstration of acquired knowledge about the structure and properties of compounds that are part of the beauty and dermocosmetic products. Proper application of theoretical knowledge in the design and quality control of cosmetic products. Understanding the influence of the type and characteristics of the raw material on final products. Knowledge about modern production technologies in the cosmetic industry. Precise and accurate application of appropriate experimental techniques in cosmetics preparing.   |                     |                                 |               |
| <b>Syllabus</b><br><i>Theoretical instruction</i><br>Introduction to the basic raw materials in cosmetics. Classification of materials according to chemical composition. Characteristics of bioactive substances important for cosmetics. Application of protein, carbohydrates, lipids, vitamins and enzymes in cosmetics. Application and chemical structure of antioxidants, $\alpha$ -hydroxy acids, antiseptics, disinfectants, preservatives, non-steroid hormones, bile acids, saponins and saponinins. Introduction to the types of cosmetic products: true solutions, colloidal solutions, emulsions, suspensions, gel-type cosmetic preparations, in stick form, aerosols.<br><br><i>Practical instruction</i><br>Synthesis of the selected organic compounds that are used in the cosmetic industry. Isolation of active components from selected raw materials. The application of appropriate experimental techniques in preparing cosmetic products. |                     |                                 |               |
| <b>Weekly teaching load</b>   |                     |                                 | <b>Other:</b> |
| <b>Lectures:</b> 3  | <b>Exercises:</b> 2 | <b>Other forms of teaching:</b> |               |