

Study program: Integrated academic studies of Pharmacy			
Type and level of the study program: integrated academic studies			
Course title: DERMOCOSMETIC PREPARATIONS (PhV-DCOSM)			
Teacher: Mladena N. Lalić-Popović, Neda S. Gavarić			
Course status: elective			
ECTS Credits: 3			
Condition: -			
Course aim Introduction to the dermocosmetic formulations and raw materials used for their compounding/production. Introduction to the official regulations and standards for the production dermocosmetic preparations in the EU. Introduction to the methods of preparation and testing of selected groups of dermocosmetic preparations.			
Expected outcome of the course: Pharmacy students will acquire knowledge on the effects of dermocosmetic preparations on the skin and adnexa and will be able to provide appropriate advice and recommendations on proper use and possible side effects of dermocosmetic preparations. Pharmacy students will acquire skills to compound selected dermocosmetic preparations according to the skin type and/or skin condition.			
Course description <i>Theoretical education</i> 1. Definition and characteristics of dermocosmetic preparations 2. Differences between dermocosmetic preparations and cosmetic products and medicines 3. Current legislation on dermocosmetic preparations in EU and USA 4. Assessment of effects, safety and tolerability of dermocosmetic preparations 5. Types of dermocosmetic preparations 6. Raw materials for the compounding/production of dermocosmetic preparations 7. Herbal dermocosmetic preparations 8. Standards for the production of dermocosmetic preparations according to the current regulations 9. Skin diseases and dermocosmetic preparations for the treatment of skin diseases 10. Dermocosmetic preparations for protection of skin from sun and aging 11. Acne, types and causes, dermocosmetic preparations for acne treatment 12. Dermocosmetic preparations for the treatment of baby and children's skin <i>Practical education: exercises, other forms of education, research related activities</i> 1. Introduction to the current legislation in EU and USA related to the production process of dermocosmetic preparations 2. Introduction to the raw materials for the manufacture of dermocosmetic preparations 3. Compounding of selected dermocosmetic preparations 4. Testing of safety, tolerability and effects of dermocosmetic preparations			
Literature <i>Compulsory</i> 1. Rieger MM. Harrys Cosmetology, 8 th ed. Chemical Publishing Co., Inc., New York, 2000. 2. Barel AO, Paye M, Maibach HI, eds. Handbook of Cosmetic Science and Technology, 4th ed. CRC Press, New York, 2014. 3. Troy D, editor. Remington: The Science and Practice of Pharmacy. 21st ed. Lippincott Williams & Wilkins, Philadelphia, 2005. 4. Allen L, Popovich N, Ansel H, editors. Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems. 9th ed. Lippincott Williams & Wilkins, Philadelphia, 2010. 5. European Pharmacopoeia, 8th ed. European Directorate for the Quality of Medicines & Healthcare (EDQM), Council of Europe, Strasbourg, France, 2013. [e-book] <i>Additional</i> 1. Swarbrick J., Boylan J.C., Encyclopedia of Pharmaceutical Technology Marcel Dekker Inc. New York, Basel, 2007			
Number of active classes			Other:
Lectures: 30	Practice: 15	Other types of teaching: Research related activities:	
Teaching methods Oral lectures, interactive classes, practical classes, laboratory work, seminar papers			
Student activity assessment (maximally 100 points)			
Pre-exam activities	points	Final exam	points
Lectures	10	Written	50
Practices	10		
Colloquium	15		
Essay	15		