

Course Title	Chemistry and Technology of Cosmetics				
Course Code	PHA414				
Course Type	Compulsory				
Level	BSc (Level 1) / Integrated MSc (Level 2)				
Year / Semester	4 th (8 th Semester)				
Teacher's Name	Dr Charalampos Triantis, Dr Stavros Malamataris				
ECTS	6	Lectures / week	3	Laboratories/week	2
Course Purpose	<p>The aim of this course is the study of anatomical construction of skin and related body structures, e.g. nail, hair, and their function. The chemistry of various ingredients of cosmetic preparations, like organic solvents, vaseline, lanoline, waxes, oils, essential oils and other aromatic substances. The technology of cosmetic products, e.g. emulsions, solutions, creams, ointments, powders, hair dyes. Preparations for hair, face, mouth, head, body, nails. The sunscreens and protection against the radiation of the sun. Various types of preservatives used in cosmetics. Dye ingredients in cosmetology. Contribution of cosmetics to health, beauty and psychosocial life. Differences between drugs and cosmetics. Further aim of the course is the knowledge of the national and European legislation governing cosmetic preparation and manufacturing, control, promotion and market. Safety in the use of cosmetics.</p>				
Learning Outcomes	<p>By the end of this course, the students should be able to:</p> <ul style="list-style-type: none"> • Identify the anatomical construction of skin and related structures (hair, nails); • Identify the chemistry of various ingredients of the cosmetic preparations, like solvents, vaseline, lanoline, waxes, oils, essential oils and other aromatic substances; • Recognise the technology of cosmetic products, e.g. emulsions, solutions, creams, etc; • Identify the preparations for hair, face, mouth, head, body, nails; • Recognise the chemistry, technology and properties of sunscreens; 				
Prerequisites	PHA206, PHA308	Corequisites	-		
Course Content	<p>Theory</p> <ul style="list-style-type: none"> • Anatomical construction of skin, skin-associated structures (nails, hair) and their function. • Chemistry of the ingredients of cosmetic preparations, organic solvents, vaseline, lanolin, waxes, oils. Essential oils and other aromatic substances. • Technology of cosmetic products, emulsions, solutions, creams, ointments, powders, hair dyes. Preparations for the hair, face, mouth, head, body, nails. Sun screens. Preservatives, e.g. antioxidants, used in cosmetics, "active" ingredients of cosmetics. 				

	<ul style="list-style-type: none"> • Contribution of cosmetology to health, beauty, psychosocial life. Similarities and differences between drugs and cosmetics. • Cosmetics and the national and European laws governing preparation - manufacturing, promotion and market. • Safety in the use of cosmetics. <p>Laboratory experiments/exercises:</p> <p>As part of the course, laboratory exercises are carried out on the course material for a better deepening and consolidation of the theoretical part. Indicative exercises are: preparation of cosmetic products such as emulsions, shampoo, sunscreen etc.</p>
Teaching Methodology	<p>The teaching methodology includes lectures offering the theoretical background, laboratory practice and educational visits to pharmaceutical or cosmetics plants. Methods such as discussion, questions/answers and pros/cons are used to enhance student's participation. Detailed notes with PowerPoint are used in the lesson. The laboratory part of the course is conducted in the Pharmaceutical Lab under the supervision of the professor/lab instructor.</p>
Bibliography	<p>(a) <u>Textbooks:</u></p> <ul style="list-style-type: none"> • Applied Cosmetology-Dermocosmetics. Tsirivas E, Varvaresou A, Papageorgiou S. Publisher Parisianos, 2017 • Introduction to Cosmetic Formulation and Technology. G. Baki, K. Alexande. Wiley, 2015 <p>(b) <u>References:</u></p> <ul style="list-style-type: none"> • Cosmetology. G. Papaioannou. Greek Publisher A.S. Vegkos, 2018
Assessment	<p>All written exams conclude open questions and multiple choice questions</p> <p>Coursework 40%</p> <ul style="list-style-type: none"> • Midterm written exam 20% • Lab report 20% <p>Final written exam 60%</p> <p>The evaluation of the course is performed by (a) a written mid-term exam during the semester, which examines specific modules of the course and it accounts for 20% of the overall grade, (b) the laboratory reports during the semester, in which students present the collected and analysed experimental data as well as their conclusions, derived from theory and the experimental data, and it accounts for 20% of the overall grade, and (c) a written final exam, which examines all modules of the course, and it accounts for 60% of the overall grade.</p> <p>Students are prepared for the above written exams by discussion, questions/answers, and pros/cons.</p> <p>The final assessment of the students is formative and summative and is assured to comply with the subject's expected learning outcomes and the quality of the course.</p>



Language	Greek, English
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