

COURSE OUTLINE

(1) GENERAL

SCHOOL	of HEALTH and CARE SCIENCES		
ACADEMIC UNIT	BIOMEDICAL SCIENCES		
DIVISION	AESTHETICS AND COSMETIC SCIENCE		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	6052	SEMESTER	6
COURSE TITLE	MANUFACTURING OF COSMETIC PRODUCTS		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>	WEEKLY TEACHING HOURS	CREDITS	
Theory	3	5	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Specific Background Courses (SBC)		
PREREQUISITE COURSES:	No		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)	https://eclass.uniwa.gr/main/portfolio.php https://eclass.uniwa.gr/courses/AISTH145/		

(2) LEARNING OUTCOMES

<p>Learning outcomes</p> <p><i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i>
<p><i>The aim</i> of the course is for students to understand the basic principles of Good Manufacturing Practice «GMP» for the manufacturing of cosmetic products in industry.</p> <p><i>The goal</i> of the course is to teach students the basic rules of cosmetics production on an industrial scale, according to the requirements of the National Organization for Medicines (EOF) and the EU, to ensure a quality product and harmonized legislation, to consumers.</p>

Learning outcomes

After the end of the course students will be able to know:

- The basic principles for the correct Production Process in the Industry (Cosmetic Plants).
- The requirements of the Auditing Authorities and the Quality Assurance Management System (QA) for the quality control and assessment of the manufactured cosmetic products.
- The proper compliance and observation of the necessary legal procedures and the documentation of the Good Manufacturing Practice «GMP» in the Cosmetic Plants for the audits, by National Organization for Medicines (EOF), other companies and international organizations (ISO).
- The necessary criteria and obligations to support the position in the industry, as a Responsible Cosmetic Scientist in Manufacturing & Quality Control/Assurance of cosmetics and medical devices products for the National Authorities (EOF).

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

*Search for, analysis and synthesis of data and information, with the use of the necessary technology
Adapting to new situations
Decision-making
Working independently
Team work
Working in an international environment
Working in an interdisciplinary environment
Production of new research ideas*

*Project planning and management
Respect for difference and multiculturalism
Respect for the natural environment
Showing social, professional and ethical responsibility and sensitivity to gender issues
Criticism and self-criticism
Production of free, creative and inductive thinking
.....
Others...
.....*

Working independently, team work, working in an interdisciplinary environment, working in an international environment, Search for, analysis and synthesis of data and information, with the use of the necessary technology, Production of new research ideas, Production of free, creative and inductive thinking

(3) SYLLABUS

1. *Manufacturing obligations of Industry according to European Regulation for Cosmetics (EC) 1223/2009 and National Organization for Medicines (EOF).*
2. *Basic principles and criteria of International Organization for Standardization (ISO) 9001:2015, 22716:2008, for Manufacturing, Research, Quality control, Quality Assurance of cosmetics.*
3. *General Principles of Good Manufacturing Practice «GMP». Procedures, Standard Operating Procedures (SOP). Instructions. Standards. Protocols. Methods. Archives.*
4. *Personnel. Facilities. Requirements and specifications of the Hellenic & European Pharmacopoeia for air (overpressures, under pressures, classification of levels A,B,C,D,E), water (deionized, purified, air conditioning (temperature, humidity, air exchange)*
5. *Raw materials. (receipt-control-release). Recording and traceability methods. Analytical identification methods. Certificates of analysis. Release systems to Production.*
6. *Packaging Materials. (receipt-control-release). Sample standardization and quality control methods.*
7. *Hygiene. Basic rules of hygiene. Appropriate clothing in the production-packaging areas. Rules for observing personal and group cleaning. Rules for avoiding microbiological (visible and invisible) contamination.*
8. *Equipment. Necessary technical characteristics of production vessels and packaging machines. (mixers-homogenizers, filling-packing machines for vials, jars, labels, carton tubing filling machines, etc.).*
9. *Final Products. Production-Filling-Final Packaging Methods. Control-Release of final products. Traceability methods of Batch No of products.*
10. *Methods of recording and keeping records of production process and corresponding certificates of analysis.*
11. *Storage-Distribution. Rules of good storage-distribution practice. Adherence to the «First in First out» import system (FIFO) of raw materials, packaging materials, semi-finished and finished products. Planning System (ERP), Supply Chain of materials. Evaluation of Suppliers.*
12. *Management of Non-Compliant Products. Complaints. Withdrawals. Self-inspections. Corrective actions. Change control.*
13. *Statistical Review of the production process and the quality assurance system of the Cosmetics Production (waste, procedures, complaints, services, controls, returns, etc.)*
14. *Environmental Quality System. Regulation, Specifications, Limits according to EU Regulation of cosmetics for Good Manufacturing Practice «GMP».*

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face-to-face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>	Use of ICT in teaching, Support of the learning process through e-class for the theoretical and laboratory part, videos of lectures of the course under the auspices of the Institution, Exercises through e-class.	
TEACHING METHODS <i>The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	Activity	Semester workload
	Lecture	80
	Educational visit	10
	Independent study	30
	Course total	120
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	FINAL WRITTEN EXAMINATION (100%): Multiple choice questionnaires, open-ended questions, characterization of sentences as true or false, problem solving, complete of answers.	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography :

1. Σ.Παπαγεωργίου. Σημειώσεις «Παραγωγή Καλλυντικών», Τμήμα Βιοϊατρικών Επιστημών, Πανεπιστήμιο Δυτικής Αττικής, 2019.
2. Τσιρίβας Ε., Βαρβαρέσου Α. Παπαγεωργίου Σ. «Βασικές Αρχές Κοσμητολογίας», ISBN: 978-960-394-920-6 ΕΠΙΣΤΗΜΟΝΙΚΕΣ ΕΚΔΟΣΕΙΣ ΠΑΡΙΣΙΑΝΟΥ ΑΕ, 2012.
3. EN ISO 22716:2007 Cosmetics - Good Manufacturing Practices (GMP)
Guidelines on Good Manufacturing Practices (ISO 22716:2007)/ C 123/3-21.4.2011
Hyman, D. Mixing and Agitation. *Advances in Cosmetic Engineering. Academic Press, London and New York (1962)*
4. Good Manufacturing Practice (GMP) Guidelines: The Rules governing Medicinal Products in The European Union, EudraLex Volume 4 Concise Reference December 8, 2009 by Mindy J. Allport-Settle
5. Guidelines for Good Manufacturing Practice of Cosmetic Products (Gmpc) (French).
Good Manufacturing Practices for Pharmaceuticals, Sixth edition, Joseph D. Nally.
6. Good Laboratory Practice Regulations, Fourth Edition, Anne Sandy
<http://ec.europa.eu/consumers/cosmetics/cosing/>

- Related academic journals:

International Journal of Production Research

International Journal of Cosmetic Sciences

Production and Manufacturing Research

Cosmetics

Pharmaceutics

Antioxidants

Ecotoxicology

Sustainability