

## COURSE OUTCOME

### 1. GENERALLY

<b>SCHOOL</b>	HEALTH & WELFARE SCIENCES		
<b>DEPARTMENT</b>	BIOMEDICAL SCIENCES		
<b>DIRECTION</b>	AESTHETICS AND COSMETOLOGY		
<b>LEVEL OF EDUCATION</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	80131	<b>SEMESTER OF STUDIES</b>	8 <sup>th</sup>
<b>COURSE TITLE</b>	SKIN LASER APPLICATIONS AND PHOTONICS		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <i>in case that the credits are awarded in separate parts of the course e.g. Lectures, Laboratory Exercises, etc.</i> <i>If the credits are awarded uniformly for the whole course, indicate the weekly teaching hours and the total number of credits.</i>		<b>WEEKLY TEACHING HOURS</b>	<b>CREDIT UNITS</b>
Lectures		3	5
<i>Add rows if needed. The teaching organization and the used teaching methods are described in details in 4.</i>			
<b>COURSE TYPE</b> <i>Background, General Knowledge, Scientific Area, Skills Development</i>	OCSBC		
<b>PREREQUISITE COURSES:</b>			
<b>LANGUAGE OF TEACHING AND EXAMS:</b>	GREEK		
<b>THE COURSE IS OFFERED TO ERASMUS STUDENTS</b>			
<b>ELECTRONIC COURSE PAGE (URL)</b>			

### 2. LEARNING RESULTS

<p><b>Learning Results</b></p> <p><i>The learning outcomes of the course are described, the specific knowledge, skills and abilities of appropriate level that students will acquire after the successful completion of the course.</i></p> <p><i>Refer to Appendix A.</i></p> <ul style="list-style-type: none"> <li>• <i>Description of the Level of Learning Outcomes for each course according to the Qualifications Framework of the European Higher Education Area</i></li> <li>• <i>Descriptive Indicators Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i></li> <li>• <i>Summary Guide for writing Learning Outcomes</i></li> </ul>
<p>The aim of the course is the understanding by the students of the action of Laser and IPL, their distinction and the indications for their application.</p> <p>They will know the types of Lasers that are applied in Dermatology and also the types that are suitable for hair removal.</p>

The use of Lasers in hair removal, the protection measures that must be taken and the side effects that may arise from their use will be analyzed. The necessary information of the prospective patient for Laser application and the ways of dealing with possible side effects will be mentioned.

Upon the completion of the course, students will know the types and categories of lasers applied for hair removal on the skin, the protection measures they should take for themselves and their patients, as well as the side effects from the application of laser radiation.

**General Skills**

*Taking into account the general skills that the graduate must have acquired (as they are listed in the Diploma Supplement and are listed below), which of the following is the aim of the course ?*

<i>Research, analysis and synthesis of data and information, using the necessary technologies</i>	<i>Project design and management</i>
<i>Adaptation to new situations</i>	<i>Respect for diversity and multiculturalism</i>
<i>Decision making</i>	<i>Respect for the natural environment</i>
<i>Autonomous work</i>	<i>Demonstration of social, professional and moral responsibility and sensitivity in gender issues</i>
<i>Teamwork</i>	<i>Exercising criticism and self-criticism</i>
<i>Working in international environment</i>	<i>Promoting free, creative and inductive thinking</i>
<i>Work in interdisciplinary environment</i>	<i>...</i>
<i>Production of new research ideas</i>	<i>Others</i>
	<i>...</i>

Autonomous work  
 Teamwork  
 Working in international environment  
 Work in interdisciplinary environment  
 Demonstration of social, professional and moral responsibility and sensitivity in gender issues

**3. COURSE CONTENT**

1. Definition and physics of LASER
2. Laser penetration into the tissues
3. IPL - Definition, mode of action
4. Laser Applications in Medicine
5. Laser applications in Dermatology
6. The use of Laser in hair removal
7. Ruby Laser
8. Alexandrite Laser

9. Diode Laser
10. ND YAG Laser
11. Approach and inform the patient about the Laser
12. Laser application in women with endocrine diseases
13. Laser application in pregnancy
14. Protection measures during Laser application
15. Side effects from Laser application in Dermatology
16. Dealing with side effects

**4. TEACHING AND LEARNING METHODS - EVALUATION**

<b>COURSE DELIVERY METHODS</b> <i>Face to face, distance education, etc..</i>	<b>FACE TO FACE</b>	
<b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES</b> <i>Use of I.C.T. in Teaching, Laboratory Education, iCommunication with students</i>	<ul style="list-style-type: none"> <li>• Use of I.C.T. in Teaching</li> <li>• Use of e-mail and website of the Department for informing the students</li> </ul> <p>Use of the e-class for posting slides, scientific articles, useful links, questions-answers, exercises, etc.</p>	
<b>TEACHING ORGANIZATION</b> <i>The way and methods of teaching are described in detail.</i> <i>Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliography study &amp; analysis, Tutoring, Practice (Placement) Clinical Exercise, Art Workshop, Interactive teaching, Study visits, Projects, Writing Study / Studies, artwork, creation, etc.</i>  <i>The student study hours for each learning activity are listed as well as the non-guided study hours so that the total workload at the semester level corresponds to the ECTS standards</i>	<b>Activity</b>	<b>Semester Workload</b>
	Lectures-Presentations using audiovisual media	90
	<b>Total course</b>	<b>90</b>
<b>STUDENT EVALUATION</b> <i>Description of the evaluation process</i>  <i>Evaluation Language, Evaluation Methods, Formative or Concluding, Multiple Choice Test, Short Answer Questions, Essay Development Questions, Problem Solving, Written Exercise, Composition / Report, Oral Examination, Public Presentation, Public Presentation, Laboratory Exercise, Clinical Examination of Patients, Artistic Interpretation, Other / Others</i>	<p><b>EVALUATION LANGUAGE: Greek</b></p> <p><b>EVALUATION METHODS:</b></p> <p>Written examination with multiple choice and / or characterization of sentences as True or False.</p>	

<i>Explicitly defined Evaluation criteria are stated and if and where they are accessible to students.</i>	
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## 5. RECOMMENDED BIBLIOGRAPHY

1. Han G. [Applications of lasers in medical dermatology](#). *Cutis*. 2014; 94: E20-3.
2. Hamoudi WK, Ismail RA, Shakir HA. Construction and temporal behaviour study of multi RLC intense light pulses for dermatological applications. *J Cosmet Laser Ther.*; 19: 325-33.
3. Sadighha A, Mohagheh Zahed G. Meta-analysis of hair removal laser trials. *Lasers Med Sci*. 2009; 24: 21-5