

**COURSE OUTLINE**

**(1) GENERAL**

<b>SCHOOL</b>	HEALTH & CARE SCIENCES		
<b>ACADEMIC UNIT</b>	BIOMEDICAL SCIENCES		
<b>DIVISION</b>	OPTICS & OPTOMETRY		
<b>LEVEL OF STUDIES</b>	UNDERGRADUATE		
<b>COURSE CODE</b>	6011-6012	<b>SEMESTER</b>	6 <sup>th</sup>
<b>COURSE TITLE</b>	CLINICAL OPTOMETRY		
<b>INDEPENDENT TEACHING ACTIVITIES</b> <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>	<b>WEEKLY TEACHING HOURS</b>	<b>CREDITS</b>	
LECTURES & LABORATORY EXERCISES	4 (THE) + 3 (LAB)	7	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
<b>COURSE TYPE</b> <i>general background, special background, specialised general knowledge, skills development</i>	CSC - Compulsory Specialization Courses		
<b>PREREQUISITE COURSES:</b>	5051-5052 Basic Optometry		
<b>LANGUAGE OF INSTRUCTION and EXAMINATIONS:</b>	Greek		
<b>IS THE COURSE OFFERED TO ERASMUS STUDENTS</b>	No		
<b>COURSE WEBSITE (URL)</b>			

**(2) LEARNING OUTCOMES**

<p><b>Learning outcomes</b>  <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. Consult Appendix A</i></p> <ul style="list-style-type: none"> <li>• <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i></li> <li>• <i>Descriptors for Levels 6, 7 &amp; 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i></li> <li>• <i>Guidelines for writing Learning Outcomes</i></li> </ul>
<p>The course aims to understand the specialized concepts and principles of Optometry and the application of more specialized clinical techniques related to the control of vision and the correction of various metropolitanities as well as the control of the fundus of the eye.</p> <p>Upon successful completion of the course the student will be able to:  to understand specialized Optometric concepts and terms.  be familiar with vision control with specialized subjective and objective techniques.  to know specialized ways of controlling the fundus of the eye and the problems that may occur as well as the terminology of their recording to become familiar with special imaging techniques of the eye</p>

**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

**(3) SYLLABUS**

Specialized methodology of vision control using specialized Optometric devices, so that students can develop diagnostic reasoning skills.

In detail, the course material includes:

Principles of operation and use of specialized Optometric instruments (retinoscope, ophthalmoscope, corneal phoropter, refractometer, slit lamp, tonometer, corneal topography)

Slit lamp techniques

Corneal tomography - Maps - Analysis - Keratoconus

Gonioscopy

Tonometry

Optical coherence tomography of the anterior and posterior part of the eye OCT

Wave front analyzers

Amblyopia - Treatment – Light Adaptation

Fluoroangiography - OCT angio

Biometry (Ascan - Bscan)

Synoptophor

Specialized tests for control and quality of vision

Stereo vision

Colored vision

Introduction to the visual fields - perimetry

General knowledge of ophthalmic surgeries LASIK - Cataract

Clinical case studies and research in Optometry.

#### (4) TEACHING and LEARNING METHODS - EVALUATION

<b>DELIVERY</b> <i>Face-to-face, Distance learning, etc.</i>	Face-to-face In classroom	
<b>USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY</b> <i>Use of ICT in teaching, laboratory education, communication with students</i>	Learning process support through the electronic platform e-class	
<b>TEACHING METHODS</b> <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>	<b>Activity</b>	<b>Semester workload</b>
	Lectures,	52
	Laboratory practice	39
	Study and analysis of bibliography	89
	Course total	180
<b>STUDENT PERFORMANCE EVALUATION</b> <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>	I. Written final exam (50%) II. Laboratory work (50%)	

#### (5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

Greek

1. "Optometry II", Pateras Evangelos – Ion Publications, 2010, ISBN 9789606970429
2. Clinical refraction, Fotinakis, Pateras, Chandrinou Ion Publications, 2000
3. Refraction, Damanakis Litsas Publications, 1999.
4. Ophthalmology, Leydhecker Wolfgang, Litsas Publications 1997

English

1. Optics of the Human Eye, Atchison A.D., Smith G., 2nd edition, Butterworth-Heinemann, 2002.
2. Clinical Optics, Elkington A.R. and Frank H.J., 2nd edition, Blackwell Scientific Publications, 1991.
3. Introduction to the optics of the Eye, Goss A. David and West W. Roger, Butterworth-Heinemann, 2002.

4. Optics and Refraction, a User-Friendly Guide, Miller David, 2nd edition, εκδόσεις Mosby, 1996.
5. Environmental vision, Interactions of the Eye, Vision and the Environment, Pitts G. Donald, Kleinstein N. Robert, Butterworth-Heinemann, 1993.
6. Ophthalmology Spalton J.H., Hitchings A., Hunter A. Paul, 2nd edition, Wolfe Publishing, 1994.
7. Optometric Instrumentation Henson, D.B. Butterworth-Heinemann, 1996.
8. Optometry, Keith Edwards, Richard Llewellyn, εκδόσεις London, Boston, Butterworths, 1988
9. Clinical Ophthalmology: A Systematic Approach: Expert Consult: Online and Print", 7e (Expert Consult Title: Online...by Jack J. Kanski and Brad Bowling FRANZCO (May 16, 2011)
10. The Ophthalmic Assistant: A Text for Allied and Associated Ophthalmic Personnel: Expert Consult - Online and Print.. Harold A. Stein, Raymond M. Stein and Melvin I. Freeman (Aug 29, 2012)
11. The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease Adam T. Gerstenblith and Michael P. Rabinowitz (Mar 19, 2012)