COURSE OUTLINE

(1) GENERAL

SCHOOL	HEALTH & CARE SCIENCES		
ACADEMIC UNIT	BIOMEDICAL SCIENCES		
DIVISION	OPTICS AND OPTOMETRY		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	7061	**SEMESTER**	7th
COURSE TITLE	NEW TECHNOLOGIES IN OPTOMETRY		

INDEPENDENT TEACHING ACTIVITIES *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*	**WEEKLY TEACHIN GHOURS**	**CREDITS**
Lectures	3	4
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Special background
PREREQUISITE COURSES:	NO
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	GREEK
IS THE COURSE OFFERED TO ERASMUS STUDENTS	NO
COURSE WEBSITE (URL)	

(2) LEARNING OUTCOMES

Learning outcomes

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

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The aim of the course is the student's understanding the concepts of Ethics and to know the basic rules of his profession as an Optician -Optometrist.

Upon successful completion of the course the student will be able

- To know the OCT-Angio technology, where the high scan allows the study of blood vessels and blood circulation in the tissues of the eye, in a very short time and without the use of drugs.
- To know the use of algorithms in the processing of imaging images of diabetic retinopathy and the remote rapid diagnosis.
- To know the use of amniotic membrane cut in the shape of a contact lens, for the treatment of gingival process after surgeries or inflammation. Learn about Enchroma ocular lenses, which are given to people with color blindness (red or green) who separate the rays of color before they reach the eye.
- To be informed about the daily silicone contact lenses with a tiny sensor that transmits wirelessly to a recording device, carried by the user, the 24-hour change of the IOP of the

eye.

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**

- OCT-Angio technology, in a very short time and without the use of drugs.
- Use of algorithms in the processing of diabetic retinopathy photography
- Remote rapid diagnosis using internet and imaging program
- Use of amniotic membrane cut in the shape of a contact lens, to treat gingival process
- Use of Enchroma ocular lenses for color blindness Silicone daily contact lenses with tiny 24-hour intraocular pressure sensor
- Use of applications and applications on PC, tablets mobiles for control of acidity, refraction or exercise of the eye.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	In class	
USE OF INFORMATION ANDCOMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	e-class	
TEACHING METHODS *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*	***Activity***	***Semester workload***
	Lectures	39
	Study	51
	Course total	*90*
STUDENT PERFORMANCE EVALUATION *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. written final exam (100%)	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

English

1. *Optical Devices in Ophthalmology and Optometry: Technology, Design Principles, and Clinical Applications: Dr. Michael Kaschke, Dr. Karl-Heinz Donnerhacke, Dr. Michael Stefan Rill – ISBN:9783527410682 – 2014*
2. *Optometry: Science, Techniques and Clinical Management: Keith H. Edwards Elsevier Health Sciences, ISBN 9780750687782, 2009*
3. *Investigative Techniques and Ocular Examination Sandip Doshi and William Harvey 1st Edition ISBN: 9780750654043 2002*