

COURSE OUTLINE

(1) GENERAL

SCHOOL	of HEALTH and CARE SCIENCES		
ACADEMIC UNIT	BIOMEDICAL SCIENCES		
DIVISION	OPTICS & OPTOMETRY		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	5041-5042	SEMESTER	5o
COURSE TITLE	OPHTHALMIC LENSES DISPENSING II		
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	
LECTURES & LABORATORY EXERCISES	4 (THEORY) + 3 (LAB)	7	
<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>	CSC - Compulsory Specialization Courses		
PREREQUISITE COURSES:	4031-4032 OPHTHALMIC LENSES DISPENSING I		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No		
COURSE WEBSITE (URL)			

(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>The aim of the course is the student's understanding of the specific concepts of Ophthalmic Lens Technology and techniques and methods of their application in the corrective spectacle frame in daily practices in his professional career. Upon successful completion of the course the student will be able to: to understand specific concepts of Ophthalmic Lens Technology. Be familiar with problem solving and the application of Ophthalmic Lenses in a spectacle frame. To know ways of dealing with special problems and exercises of understanding technological and scientific research methods in the subject of Ophthalmic Lens Technology. Understand the execution of special corrective prescriptions.</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
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Others...
.....

Working independently
Team work

(3) SYLLABUS

Prisms. Definition, thin prism, deflection angle, angiotometry, prism elements, use of prisms, decentralization, eccentric lenses.
Bifocal and triple lenses. Type and location of outbreak and prismatic problems from the Addition, Biplastic for children. Creation of "No-jump" of bifocals, execution of recipes with bifid.
Multifocal lenses, Progressive addition lenses, design methods, types of multifocal and behavior study, execution of multifocal prescription, application criteria and correction of refractive errors.
Aspherical lenses
Ophthalmic lens aberrations

(4) TEACHING and LEARNING METHODS - EVALUATION

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

(5) ATTACHED BIBLIOGRAPHY

<p>- Suggested bibliography:</p> <p>Greek</p> <p>“Ophthalmic lens II”, Pateras Evangelos – Ion Publications, 2010, ISBN 978-960-697-040-5</p> <p>English</p> <ol style="list-style-type: none"> 1. Schaum's outline of theory and problems of optics - by Eugene Hecht. - New York : McGraw-Hill, 1975 2. Introductory university optics - J. Beynon. - London ; New York : Prentice Hall, 1996 3. Introduction to optics - Frank L. Pedrotti, Leno S. Pedrotti. - Englewood Cliffs, N.J. : Prentice-Hall International, 1993 4. Handbook of optics - sponsored by the Optical Society of America. - New York : McGraw-Hill, 1995-2001 5. Fundamentals of optics - Francis A. Jenkins, Harvey E. White. - New York : McGraw-Hill, 1976 6. System for ophthalmic dispensing - Brooks, Clifford W. - Boston : Butterworth-Heinemann, 1979 7. Introduction to modern optics - by Grant R. Fowles. - New York : Dover Publications, 1989, 1975 8. Applied optics and optical design - A.E. Conrady ; [edited and completed by Rudolf Kingslake]. - New York : Dover, 1992 9. Introduction to classical and modern optics - Jurgen R. Meyer-Arendt. - Englewood Cliffs, N.J. : Prentice Hall, 1995
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