COURSE OUTLINE

(1) GENERAL

SCHOOL	HEALTH & CARE SCIENCES		
ACADEMIC UNIT	BIOMEDICAL SCIENCES		
DIVISION	OPTICS & OPTOMETRY		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	6051-6052	**SEMESTER**	6th
COURSE TITLE	ORTHOPTICS		

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 TEACHING HOURS**	**CREDITS**
Lectures	3	6
Labs	2	
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:	
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	N/A

(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 syllabus addresses to understand the basic concepts of the binocular vision and orthoptics as well as the treatment of non orthophoric problems.

Upon successful completion of the syllabus the student will :

- Be able to understand basic concepts of binocular vision.
- Be comfortable with solving binocular vision problems and oculomotor disorders
- Be familiar know and understand the ways of examining the binocular vision
- Enable the student to understand basic concepts of orthoptics
- Be familiar with solving non orthophoric problems.
- Be able To know the application of orthoptic principles

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**

1. The muscles of the eye and their movements
2. Binocular vision, level of binocular vision, development of binocular vision,
3. stereoscopic vision, stereograms,
4. Retinal correspondence, matching, horopter , Panum space
5. Accommodative convergence
6. Binocular dysfunctionw and sensory abnormalities, eccentric focus
7. Classification of strabismus: phories heterophories, tropies
8. Amblyopia, clinical investigation, treatment
9. Tests for binocular vision
10. Test methods for strabismus
11. Classification of strabismus: phories heterophories, tropies
12. Types of strabismus: etiology, diagnosis and treatment
    Visual practice for binocular dysfunctions
13. Orthoptic treatment
14. Strabismus surgery

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face.	
USE OF INFORMATION ANDCOMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Delivery of the syllabus is supported by 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 hours
	Laboratory practice	26 hours
	Self study	85 hours
	Course total	*150 hours*
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.*	Written assessment 50% Practical assessment 50%	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

- Στραβισμοί και οφθαλμοκινητικές διαταραχές Δαμανάκις Α., Θεοδοσιάδης Γ. Γουδί : Ιατρικές εκδόσεις Λίτσας, 1992.
- Βασικές αρχές στραβισμού Θεοδοσιάδης Γ. , Δαμανάκις Α. Αθήνα : Ιατρικές εκδόσεις Λίτσας, 1981 Ξενόγλωσση
- Clinical procedures for ocular examination Nancy B. Carlson Stamford, Conn : Appleton & Lange, 1996
- Visual perception Steven H Schwartz –Norwalk Appleton & Lange, 1994
- Binocular vision and ocular motility – theory and management of strabismus/ Gunter K von Noorden –St Louis: Mosby, 1996
- Binocular anomalies - diagnosis and vision therapy / John R Griffin, J David Grisham Oxford : Butterworth-Heinemann, 1995
- Binocular vision anomalies - investigation and treatment/ David Pickwell Oxford : Butterworth- Heinemann, 1994
- Binocular vision and orthoptics investigation and management / J W Bruce Evans, Sandip Doshi Oxford: Butterworth_ Heinemann, 2001
- A systematic approach to strabismus Karlsson, V. C. 2nd ed. Thorofare, NJ : SLACK, 2009.

- Pediatric ophthalmology and strabismus ,Strominger, M B. St. Louis, Mo. ; London : Mosby, 2008. Strabismus, Billson, F. A. London : BMJ Books, 2003.
- Clinical management of binocular vision : heterophoric, accommodative, and eye movement disorders Scheiman, Mitchell 4th ed.Philadelphia : Lippincott Williams & Wilkins, 2014.
- Normal binocular vision : theory, investigation and practical aspects Stidwill, David Oxford : Wiley-Blackwell, 2011.

Relevant Journals

- American Association of Paediatric Ophthalmology and Strabismus
- American Orthoptic Journal
- British Journal of Orthoptics
- Optometry and Vision Science
- Perception
- Vision research