UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Fisica e Chimica - Emilio Segrè
ACADEMIC YEAR	2021/2022
BACHELOR'S DEGREE (BSC)	OPTICS AND OPTOMETRY
SUBJECT	OPTOMETRY TECHNIQUES - PRACTICE III
TYPE OF EDUCATIONAL ACTIVITY	S
AMBIT	10963-Per stages e tirocini presso imprese, enti pubblici o privati, ordini professionali
CODE	20241
SCIENTIFIC SECTOR(S)	
HEAD PROFESSOR(S)	MILITELLO VALERIA Professore Ordinario Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	11
INDIVIDUAL STUDY (Hrs)	0
COURSE ACTIVITY (Hrs)	275
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	3
TERM (SEMESTER)	Annual
ATTENDANCE	Mandatory
EVALUATION	Pass/Fail
TEACHER OFFICE HOURS	**MILITELLO VALERIA** Monday 15:00 17:00 Ufficio personale al primo piano dell'Edificio 18 Viale delle Scienze. Si prega di contattarmi preventivamente via email per conferma.

DOCENTE: Prof.ssa VALERIA MILITELLO

PREREQUISITES	Knowledge of Optometry I and Optometry II is required
LEARNING OUTCOMES	Knowledge and understanding: deepen the knowledge of disorders and functional vision deficits knowledge and skills to be acquired: know how to formulate a hypothesis of a treatment program and re-education of the visual function ability to apply knowledge and understanding: know and recognize visual impairment. autonomy of judgment: conscious autonomy of judgment in the evaluation and in the use of useful tools in higher optometric diagnosis. communication skills: acquisition of skills and tools to present specialized data. learning ability: development and deepening of the knowledge acquired through the consultation and research of the existing literature on a chosen topic.
ASSESSMENT METHODS	The practical activities will have for a final evaluation which will consist of a written report, drawn up by each student, on the internship activities carried out and possibly a power-point presentation. This report will be evaluated by a committee with academic and company tutors of the Course. This committee will evaluate the students' reports taking into account: • compliance with the activities carried out with respect to the training proposed project and / or the traineeship transparency sheet • skills acquired and specific question on the program • evaluation of the company tutor and / or professional who will carry out the practical and frontal training. Practical tests could be requested. The Committee will draw up a specific report detailing the opinions on the activities carried out by each student. A summary version of this judgment will be reported in the final report which will have to be signed by the university tutor of each student for the considered practical activities. The evaluation of the practical activities concludes with a judgment of suitability / inadequacy.
EDUCATIONAL OBJECTIVES	At the end of the course the student must be able to have: knowledge on the fundamentals of recognition and management of visual impairment skills on the use of optical aids to improve visual performance.
TEACHING METHODS	Applied lectures (3 CFU – 75 hours), practical activities (4 CFU – 100 hours), practical activities at student's choice (4 CFU – 100 hours)
SUGGESTED BIBLIOGRAPHY	Benjamin JW; "Borish's Clinical Refraction", Butterworth-Heinemann (2016) Scheiman M, Wick B; "Clinical Management of Binocular Vision: Heterophoric, Accommodative, and Eye Movement Disorders"; Lippincott Williams & Wilkins (2019) I testi sono consultabili nella biblioteca di Viale delle Scienze Ed. 18.

SYLLABUS

Hrs	Others
175	APPLIED LECTURES •PART 1: oBinocular vision: heterophoria and heterotropy; exodeviation and exodeviation, vertical cycle deviations, alphabetic syndrome "A" and "V". binocular vision anomalies: aniseconia, suppression, eccentric fixation, amblyopia, abnormal retinal correspondence. oIntroduction to the treatment of binocular vision anomalies. the principles of visual and visuomotor reeducation. •PART 2: oLow vision: History of the treatment of low vision, field of action, epidemiology and causes, psychosocial aspects, oexamination of the visual function and refractive state, optics of visual impairment, telescopes, ooptical aids for proximal vision, contact lenses, electronic magnifying aids, environmental aids, illuminance and vision, ocentral and peripheral low vision, visual impairment in the childhood age, mobility, training, artificial vision. •PART 3 oErgoptometry: work environment and visual needs; vision and use of vdt; visual-postural hygiene rules oVision training: visual prerequisites for an effective and comfortable vision; visual problems re-educable; vision training program for dysfunctions: visuomotor, accommodative, binocular. PRACTICAL ACTIVITIES •PART 1: oBinocular vision otreatment of binocular vision anomalies. •PART 2: oGeriatric optometry: visual characteristics of the elderly, essential tests in the examination of the subject in geriatric age oexamination of visual function and refractive state in partially sighted people •PART 3 oErgoptometry oVision training
100	Practical activities of student's choice 1 (100 out of 275 hours) Internships to be carried out in collaboration with INAF-OAPA 1. Activities to be carried out at the Laboratory in via G.F. Ingrassia tutor: Prof. Marco Barbera, Dr. Ugo Lo Cicero - additive manufacturing (3D printing) - deposition of thin films 2. Activities in collaboration with an external company tutor: Dott. Giusy Micela Processing of the prototype of the primary mirror of the ESA M4 ARIEL space mission, to be carried out in partnership with the company MediaLario of Lecco that operates in the field of optical systems, optical components such as mirrors and high-precision lenses, including curved mirrors, and in the field of laminated, electro-formed or metallic optical systems. 3. Activities to be held at the Laboratories and Offices of Piazza del Parlamento, 1 tutor: Dr. Alfonso Collura use of optical equipment on board of braked balloons applications in the field of environmental monitoring
100	Practical Activities at student's choice 2 (100 out of 275) Other practical activities compatible with the above contents