UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Fisica e Chimica - Emilio Segrè
ACADEMIC YEAR	2020/2021
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)	1° semester
ATTENDANCE	Not 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, 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 traineeships' final assessment will consist of a written report, prepared by each student, on the internship activities carried out and possibly a power-point presentation. This report will be evaluated by the Internal Traineeship Committee (ATC). The Committee will evaluate the students' reports taking into account: • adherence of the activities carried out with respect to the training project proposed by the trainee and/or the traineeship program reported below • acquired skills • assessment of the company tutor The Internal Traineeship Committee will draw up a special report detailing the Committee's judgments on the traineeship carried out by each student. A concise version of this judgment will be reported in the final report which must be signed by the university tutor of each student for the internship considered. Practical tests could be requested. The evaluation of the traineeships ends with an assessment of suitability/ unsuitability.
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	William JB; "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)

SYLLABUS

Hrs	Others
175	APPLIED LECTURES: •PART 1: 1.Binocular 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. 2.Introduction to the treatment of binocular vision anomalies. the principles of visual and visuomotor reeducation. •PART 2: 1.Low vision: History of the treatment of low vision, field of action, epidemiology and causes, psychosocial aspects, 2.examination of the visual function and refractive state, optics of visual impairment, telescopes, 3.optical aids for proximal vision, contact lenses, electronic magnifying aids, environmental aids, illuminance and vision, 4.visual rehabilitation in peripheral low vision, visual impairment in the childhood age, mobility, training, artificial vision. •PART 3 1.Ergoptometry: work environment and visual needs; vision and use of vdt; visual-postural hygiene rules 2.Vision 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: 1.Binocular vision 2.treatment of binocular vision anomalies. •PART 2: 1.examination of visual function and refractive state in partially sighted people 2.visual rehabilitation in low vision. •PART 3 1.Ergoptometry 2.Vision training

SYLLABUS

Hrs	Others
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