UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Fisica e Chimica - Emilio Segrè
ACADEMIC YEAR	2020/2021
BACHELOR'S DEGREE (BSC)	OPTICS AND OPTOMETRY
SUBJECT	OPHTHALMIC LENSES - PRACTICE
TYPE OF EDUCATIONAL ACTIVITY	S
AMBIT	10963-Per stages e tirocini presso imprese, enti pubblici o privati, ordini professionali
CODE	20238
SCIENTIFIC SECTOR(S)	
HEAD PROFESSOR(S)	MILITELLO VALERIA Professore Ordinario Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	6
INDIVIDUAL STUDY (Hrs)	0
COURSE ACTIVITY (Hrs)	150
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	1
TERM (SEMESTER)	2° 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 geometrical optics and ophthalmic optics are required
LEARNING OUTCOMES	Knowledge and understanding: knowledge of ophthalmic optics applied to the use of corrective and protective glasses. Knowledge and skills to be acquired: introducing the student to the creation of corrective and protective glasses such as custom-made devices (DPI). Provide the essential skills to select, design and implement corrective eyewear. Ability to apply knowledge and understanding: Criteria for choosing and identifying materials and geometries for ophthalmic lenses.
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 the Apprenticeship Committee of the Course. This Commission will evaluate the students' reports taking into account: • compliance with the activities carried out with respect to the training project proposed by the trainee and / or the traineeship transparency sheet • skills acquired • evaluation of the company tutor and / or professional who will carry out the practical and frontal training. Practical tests could be requested. The Apprenticeship Committee will draw up a specific report detailing the opinions of the Committee 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: know the characteristics and properties of the optical devices used for correction and compensation of defects and vision disorders; interpret a prescription, choose and make an optical device verifying its effective functionality and compliance with the standards of compliance according to European and international standards.
TEACHING METHODS	Common applied lessons (2 ECTS - 50 hours) and common practical activities (4 ECTS - 100 hours
SUGGESTED BIBLIOGRAPHY	Levisolo Abati, Buratto, Montani, Occhiali in Ottica Oftalmica. Fabiano Ed (1993). Rossetti A e AA. VV. , Lenti & occhiali. Un manuale di ottica oftalmica. Palermo. Medical Books 2003. Rossetti A, Gheller P. Manuale di Optometria e Contattologia, Ed. Zanichelli. Dispense e appunti.

SYLLABUS

Hrs	Others
150	APPLIED LESSONS: History of ophthalmic lenses and frames. Definition and standards on ophthalmic lenses and frames. Materials and treatments of ophthalmic frames: sizes and names of the parts. Ergonomics concepts applied to frames. Ophthalmic lens materials: organic and mineral lenses. Ophthalmic lenses: name and parameters: refractive index, basic curve. Abbe number. Thickness of the lenses. Lens power. Optical center. Spherical, toric and aspherical lenses; optical center and dioptric power measurement. Transposed, Tabo / International system. Treatments: coloring, hardener, anti-glare, mirroring, photochromism, polarization. Advanced ophthalmic lenses: bifocal, progressive, regressive, dynamic, prismatic, aniseiconic. Standard and prescription lenses. Choice of lenses and frames according to medical prescription. Validation procedures for glasses according to the prescriptions. CE certifications and declaration of conformity PRACTICAL ACTIVITIES: Measurement and control of the lenses by the frontifocometer. Centering of spherical, astigmatic, progressive, prismatic lenses. Cutting, bevel and lens polishing techniques. Shaping Coloring of CR39 lenses; Repair of frames. Slow management, storage and reordering.