UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Fisica e Chimica - Emilio Segrè
ACADEMIC YEAR	2023/2024
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)	Annual
ATTENDANCE	Mandatory
EVALUATION	Out of 30
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	Knowledges in Mathematics 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 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 final evaluation is out of 30 as follows: A+/ A Excellent) 30 cum laude-30 Excellent knowledge of teaching contents; students should show high analytical and synthetic capabilities and should be able to apply their knowledge to solve highly complex problems. (B Very Good) 29-27 Very good knowledge of the teaching contents and excellent language control; students should show analytical and synthetic skills and be able to apply their knowledge to solve problems of medium and, in some cases, even higher complexity. (C Good) 26-24 Good knowledge of teaching contents and good language control; the students should be able to apply their knowledge to solve problems of medium complexity. (D Satisfactory) 23-21 Average knowledge of the teaching contents, in some cases limited to the main topic; acceptable ability to use the specific discipline language and independently apply the acquired knowledge. (E Sufficient) 20-18 Minimum teaching content knowledge, often limited to the main topic; modest ability to use the subject specific language and independently apply the acquired knowledge. (F Fail) 17-1 Lack of an acceptable knowledge of the main teaching content knowledge; very little or no ability to use the specific subject language and apply independently the acquired knowledge.
EDUCATIONAL OBJECTIVES	At the end of the course the student must be able to: know the characteristics and properties of the optical devices (various lenses and glasses as per program) used for the correction and correction of defects and vision disorders; know the various standards used as a reference. a prescription, choose and create an optical device, verifying its effective functionality and compliance with the conformity rules 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	Buratti, Lovisolo, Abati, Montani, Occhiali in Ottica Oftalmica. Fabiano Ed (1993). ISBN:9788886234023. Rossetti A e AA. VV. , Lenti & occhiali. Un manuale di ottica oftalmica. Palermo. Medical Books 2003. ISBN-10, 8880340328. ISBN-13, 978-8880340324. I testi consigliati si trovano nella biblioteca dell'Ed. 18

SYLLABUS

Hrs	Frontal teaching
50	APPLIED LESSONS: History of ophthalmic lenses and frames. Definition and standards on ophthalmic lenses and ophthalmic frames. Materials and treatments of ophthalmic frames: dimensions and names of the parts. Ergonomic concepts applied to frames. Ophthalmic lens materials: organic lenses and mineral lenses. Ophthalmic lenses: denomination and parameters: refractive index, base curve. Abbe number. Lens thickness. Power of the lens. Optical Center. Spherical, toric and aspherical lenses; optical center and dioptric power measurement. Transposta, Tabo / International system. Treatments: coloring, hardener, anti-reflective, mirrors, photochromic, polarization. Advanced ophthalmic lenses: bifocal, progressive, degressive, dynamic, prismatic, aniseiconic. Standard lenses and prescription lenses. Choice of lenses and frames based on medical prescription. Eyewear validation procedures based on prescriptions. CE certifications and declaration of conformity.

Hrs	Workshops
100	PRACTICAL ACTIVITIES: Lens measurement and control at the lensmeter. Centering of spherical, astigmatic, progressive, prismatic lenses. Lens cutting, bevel and polishing techniques. Teleshaping. CR39 lens tinting; Frame repair. Slow management, storage and reordering.