



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Fisica e Chimica - Emilio Segrè		
ACADEMIC YEAR	2019/2020		
BACHELOR'S DEGREE (BSC)	OPTICS AND OPTOMETRY		
INTEGRATED COURSE	EYE PATHOPHYSIOLOGY AND HYGIENE . INTEGRATED COURSE		
CODE	20236		
MODULES	Yes		
NUMBER OF MODULES	2		
SCIENTIFIC SECTOR(S)	MED/42, MED/30		
HEAD PROFESSOR(S)	VADALA' MARIA	Professore Associato	Univ. di PALERMO
OTHER PROFESSOR(S)	VADALA' MARIA	Professore Associato	Univ. di PALERMO
	RESTIVO VINCENZO	Ricercatore a tempo determinato	Univ. di PALERMO
CREDITS	8		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	2		
TERM (SEMESTER)	2° semester		
ATTENDANCE	Not mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	RESTIVO VINCENZO Tuesday 14:30 15:30 Presso lo studio del docente sito al primo piano del Plesso di Igiene e Microbiologia del Dipartimento di Promozione della Salute, Materno-infantile, Medicina Interna Interna e Specialistica d'Eccellenza (PROMISE), previ accordi col docente stesso alla e-mail: vincenzo.restivo@unipa.it VADALA' MARIA Monday 12:00 14:00 Wednesday 09:00 10:00		

PREREQUISITES	Basic knowledge of optical physics, biology, anatomy and human physiology
LEARNING OUTCOMES	Knowledge and understanding: Knowing the general concepts and the main risk factors of disease and health in the social community and in particular the ocular physiopathology, and the interaction between man, vision and physical-social and work environment; lifestyle, genetic, demographic, environmental, socio-economic, psychological and cultural factors in the general population . Knowing the etiology and natural history of acute and chronic diseases and cognitive tools and the methodological rigor of general pathology. Knowing the epidemiology, health economics and basics of management of health. Knowing the main eye diseases and the interaction with vision pathway. Ability to apply knowledge and understanding Ability to implement adequate preventive and protective actions against diseases, injuries and accidents, maintaining and promoting the health of the individual, family and community, in particular ophthalmology. Knowing how to make correct use of local, regional and national surveillance data, demography and epidemiology in health decisions. To became able to make correct decisions, when necessary, in health care issues. Ability to understand a medical report and a specialized prescription. Autonomy of judgment To acquire the ability to integrate knowledge and manage complexity, as well as to make judgments based on limited or incomplete information, including the reflection on the social and ethical responsibilities connected to the application of the their knowledge and judgments. Ability to evaluate the role of ocular pathologies due to relapses in the field of vision disorders. Communication skills Ability to communicate ideas, problems and solutions, as well as information in particular in the field of health and prevention and optical solutions both to interlocutors and / or specialists and to non-optic and ophthalmic opticians. Learning skills Ability to update with the consultation of scientific publications specific to the sector; to be able to collect, organize and correctly interpret health and biomedical information from the various resources and databases available. Knowing how to use the technology associated with information and communications as a fair support for diagnostic, therapeutic and preventive practices and for health surveillance and monitoring.
ASSESSMENT METHODS	Oral exam. The evaluation of the integrated course will take into account the evaluation of the individual modules, the single mark will be expressed in thirtieths, considered as the average of the individual modules, and will be articulated as follows: A) Basic knowledge of the topic of examination and ability to summarize and exposure: from 18 to 23; B) In-depth knowledge of the topic of examination with good knowledge of summary and exposure: from 24 to 27; C) Excellent knowledge of the topic of examination and appropriate correlation with other relevant topics and excellent synthesis and exposure skills: from 28 to 30 cum laude.
TEACHING METHODS	Academic lessons

MODULE PRINCIPLES OF HYGIENE

Prof. VINCENZO RESTIVO

SUGGESTED BIBLIOGRAPHY

Vitale, Zagra, Igiene, Epidemiologia e Organizzazione Sanitaria orientate per problemi. Elsevier
Materiale didattico fornito dal docente

AMBIT	10699-Attività formative affini o integrative
INDIVIDUAL STUDY (Hrs)	51
COURSE ACTIVITY (Hrs)	24

EDUCATIONAL OBJECTIVES OF THE MODULE

The hygiene course will allow students to know basic epidemiology, prevention strategies, health promotion, health education with particular application to ocular diseases

SYLLABUS

Hrs	Frontal teaching
3	Definition and objectives of Hygiene and Public Health - Demographic parameters of health and health indicators of populations
3	Definition and general objectives of Primary, Secondary and Tertiary Prevention with related application methodologies.
3	Strategic objectives of the Prevention: control, elimination and eradication of diseases
2	Disinfection, disinfestation and sterilization practices - Evaluation of biological risk among healthcare workers
4	Vaccines: constitution, ways of administration, impact strategies, evaluation of vaccine efficacy. Mandatory and recommended vaccinations, vaccination schedule available in Italy and Sicily - Immunoglobulins: types, ways of administration, efficacy.
3	Epidemiology and prevention of chronic degenerative diseases: primary, secondary and tertiary prevention techniques, applications and strategies.
3	Epidemiology of infectious diseases and chronic degenerative eye and prevention strategies. Eye hygiene
3	Italian Health Organization System: National Healthcare Plan, Healthcare Agencies, Essential Care Levels - Clinical Governance and its tools control and reduction of clinical risk - HTA

MODULE EYE PATHOPHYSIOLOGY

Prof.ssa MARIA VADALA'

SUGGESTED BIBLIOGRAPHY

Miglior M. Oftalmologia clinica. Ed. Monduzzi Bologna

Azzolini A., Carta F., Marchini G., Menchini U. Clinica dell'apparato visivo, Masson, 2010

AMBIT	50161-Sperimentale e applicativo
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INDIVIDUAL STUDY (Hrs)	85
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COURSE ACTIVITY (Hrs)	40
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EDUCATIONAL OBJECTIVES OF THE MODULE

Acquisition of competence with the principles of vision and ocular physiopathology to understand their role in vision processes and of the ophthalmological diagnostics.

SYLLABUS

Hrs	Frontal teaching
4	Eye development. Ocular diseases: epidemiology, medical history, ocular symptoms. Observation, inspection, symptom recognition and diagnostic techniques.
5	Applied sensory physiology. The ocular dioptrics and the pathophysiological role of the structures: the cornea, the crystalline lens. Accommodation: stimuli, neural circuits, muscular effectors; accommodative synergies: miosis and convergence of visual axes; accommodation anomalies.
5	Eyelids: functions; voluntary and reflex motility, control mechanisms; associated bulbar movements, eyelid pathology. Lacrimal secretion: functions; physical and biochemical properties, secretory apparatus and excretory system; alterations of secretion and excretion.
5	The cornea: the diseases of transparency. The iris: functions and motility; control of the pupillary opening and related optical effects; pupillary reflexes; main alterations.
2	The lens: alterations of transparency and location.
3	Aqueous humor: composition and functions. Intraocular pressure (IOP): physiopathology of production and outflow of aqueous humor; effects of IOP on circulation and endocular nutrition. Glaucoma.
6	The vitreous body: diseases of transparency; regmatogenous alterations, vitreous phosphores, detachment. Coding and transmission of retinal information; scotopic vision and vision photopic; adaptation to darkness and light; chromatic vision and main defects. Retinal degeneration and new technologies for future therapeutic approaches Retinitis pigmentosa and macular degeneration.
5	Binocular vision. Diseases of ocular motility.
5	Neuro-sensory visual diseases.