



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Biomedicina, Neuroscienze e Diagnostica avanzata		
ACADEMIC YEAR	2023/2024		
BACHELOR'S DEGREE (BSC)	ORTHOTICS AND OPHTHALMOLOGIC CARE		
INTEGRATED COURSE	APPLIED ORTHOPTIC SCIENCES - INTEGRATED COURSE		
CODE	16902		
MODULES	Yes		
NUMBER OF MODULES	2		
SCIENTIFIC SECTOR(S)	MED/50, MED/27		
HEAD PROFESSOR(S)	GRASSO GIOVANNI	Professore Associato	Univ. di PALERMO
OTHER PROFESSOR(S)	GRASSO GIOVANNI	Professore Associato	Univ. di PALERMO
CREDITS	6		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	3		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	GRASSO GIOVANNI Monday 14:00 16:00 Clinica Neurochirurgica		

PREREQUISITES	The student must have knowledge in the field of physics, anatomy of the central nervous system and of the auditory system and the related diseases in order to understand the contents and the learning objectives of the course.
LEARNING OUTCOMES	<p>Knowledge and ability to understand: the student will demonstrate knowledge and understanding skills regarding conventional radiology, computed tomography and magnetic resonance techniques. This knowledge will be acquired through lectures and practical sessions.</p> <p>Ability to apply knowledge and understanding: At the end of the course the student will be able to apply knowledge in practice, with understanding abilities and able to prove his problem solving skills regarding conventional radiology, computed tomography and magnetic resonance techniques within the oto-neuro-radiology field, in order to achieve excellent technical abilities suitable in light of the complexity of the care and the health of the population.</p> <p>Independent reasoning: At the end of the course the student will be able to integrate knowledge and manage complexity, as well as to formulate assessments on the basis of limited or incomplete information, including considerations on the social and ethical responsibilities related to the application of his/her knowledge, and assessments regarding the applications of conventional radiology, computed tomography and magnetic resonance techniques within the oto-neuro-radiology field.</p> <p>Communication skills: At the end of the course the student will know how to communicate in a clear and unequivocal way his / her conclusions, as well as the knowledge and underlying rationale, to specialists and non-specialist interlocutors regarding the applications of conventional radiology, computed tomography and magnetic resonance within the oto-neuro-radiology field. These skills will be acquired and verified through meetings with patients, tutors and assistants, promoting active involvement of students.</p> <p>Learning skills: At the end of the course the student will have developed those learning skills that allow to continue to study in an autonomous way. These skills will be developed through the percentage of time dedicated to autonomous learning, encouraging reflection and elaboration activities about the issues addressed within the course about the application of conventional radiology, computed tomography and magnetic resonance. Evaluation of learning skills can be carried out through the elaboration of general reports or presentations with the help of the teaching staff.</p>
ASSESSMENT METHODS	<p>The learning verification tests will take place through an oral interview. Oral test will consist of an interview, aimed at ensuring the possession of the skills and knowledge of the topics covered during the course.</p> <p>The student will have to answer to at least two / three oral questions, about the topics of the study programme, with reference to the suggested books.</p> <p>The evaluation is expressed in thirtieths with the following method:</p> <p>30-30 and merit: Excellent knowledge of topics, excellent language skills, good analytical ability, the student is able to apply knowledge to solve the proposed problems.</p> <p>26-29: Good knowledge of topics, good language skills, the student is able to apply the knowledge to solve the proposed problems.</p> <p>24-25: Basic knowledge of the main topics, discrete language skills with limited ability to autonomously apply knowledge to the solution of the proposed problems.</p> <p>21-23: The student is not fully mastered in the main topics of the course but possesses knowledge, satisfactory language property, poor ability to apply the acquired knowledge independently.</p> <p>18-20: minimal basic knowledge of the main topics of the course and relative technical language, very little or no ability to independently apply the acquired knowledge.</p> <p>Insufficient: the student does not have an acceptable knowledge of the contents of the topics covered in the course.</p>
TEACHING METHODS	Lessons at BiND (III floor).

MODULE
APPLIED TECHNICAL AND MEDICAL SCIENCES 2

SUGGESTED BIBLIOGRAPHY

Liuzzi L, Bartoli F. Manuale di oftalmologia. Minerva Italica ed. ISBN-13 978-8877114112

Azzolini C., Carta F., Marchini G., Menchini U. Clinica dell'apparato visivo. Ed. Masson Edra LSWR 2010 ISBN: 9788821431241

Carta F., Carta A. Neuroftalmologia. Monduzzi ed. ISBN: 8865210834

AMBIT	10331-Scienze dell' ortottica e dell' assistenza di oftalmologia
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

EDUCATIONAL OBJECTIVES OF THE MODULE

Students should acquire skills in order to correctly interpret the signs and ocular symptoms with particular integration with the concepts learned in the other module of the course; they should understand the ophthalmic abnormalities related to the presence of neurological and neurosurgical diseases treated, adding even the specialists medical figures in the evaluation of ocular impairment of these clinical situations.

SYLLABUS

Hrs	Frontal teaching
3	Anatomy of the optic nerve head and visual pathways.
3	Classification of ocular movement
3	Alteration of ocular motility: supranuclear, internuclear and nuclear lesions. Injury to the nerve and neuromuscular junction. Injury to muscles and tendons.
3	Localization of anatomical site of damage based on changes in eye movements and tests aimed at diagnosis.
3	Evaluation of oculomotricity and sensoriality in the initiating strabismus.
3	General principles of perimetry. Perimetry in neurophthalmological diseases.
3	Fundamentals of ocular electrophysiology. Types of electrophysiological tests, execution and clinical applications.
3	The rehabilitation pathway of the neurophthalmological patient.
Hrs	Practice
6	Diagnostic tools and techniques: OCT, perimetry and electrophysiological tests. The orthoptic evaluation of the neurophthalmological patient

MODULE
NEUROSURGERY

Prof. GIOVANNI GRASSO

SUGGESTED BIBLIOGRAPHY

Articoli scientifici internazionali

International scientific papers

NEUROCHIRURGIA IN DIECI LEZIONI. FONTANELLA. ED. MINERVA MEDICA. ISBN: 978-88-7711-902-5 (2019)

AMBIT	10324-Scienze interdisciplinari e cliniche
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

EDUCATIONAL OBJECTIVES OF THE MODULE

Students must acquire the knowledge that will be of benefit to correctly interpret the signs and neurological symptoms related to a framework of pathology. They will have to learn concepts that will allow to frame the syndromes related to the presence of the treated neurosurgical pathologies . The course will allow , in addition, for each group of treated diseases , to acquire specific information on the epidemiological, clinical , pathophysiological , prognostic and therapeutic aspects.

SYLLABUS

Hrs	Frontal teaching
10	Primary glial tumors
5	Extra-axial brain tumors
5	Cerebral aneurysms and AVMs
2	Cavernous angiomas
2	Hydrocephalus and other intracranial malformations
5	Diagnostic criteria and multimodal therapy
1	Multimodal therapy and future perspectives