



# UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Promozione della Salute, Materno-Infantile, di Medicina Interna e Specialistica di Eccellenza "G. D'Alessandro"		
ACADEMIC YEAR	2021/2022		
BACHELOR'S DEGREE (BSC)	NURSING		
INTEGRATED COURSE	NEUROLOGY, CARDIOLOGY AND RADIOLOGY - INTEGRATED COURSE		
CODE	21847		
MODULES	Yes		
NUMBER OF MODULES	3		
SCIENTIFIC SECTOR(S)	MED/26, MED/36, MED/11		
HEAD PROFESSOR(S)	CORRADO EGLE	Professore Associato	Univ. di PALERMO
	GALASSI ALFREDO	Professore Ordinario	Univ. di PALERMO
	RUGGERO		
OTHER PROFESSOR(S)	CORRADO EGLE	Professore Associato	Univ. di PALERMO
	D'AMELIO MARCO	Professore Associato	Univ. di PALERMO
	GALASSI ALFREDO	Professore Ordinario	Univ. di PALERMO
	RUGGERO		
	PARDO SALVATORE	Ricercatore	Univ. di PALERMO
	BRIGHINA FILIPPO	Professore Associato	Univ. di PALERMO
	GAGLIARDO CESARE	Ricercatore a tempo determinato	Univ. di PALERMO
CREDITS	9		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	2		
TERM (SEMESTER)	1° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	<p><b>BRIGHINA FILIPPO</b> Wednesday 15:00 16:00 Neurofisiopatologia Policlinico c/oc/o Istituto Medicina del lavoro, via del Vespro 143: previa prenotazione via mail: filippobrighina@gmail.com</p> <p><b>CORRADO EGLE</b> Thursday 12:00 14:00 U.O.C di Cardiologia</p> <p><b>D'AMELIO MARCO</b> Thursday 12:00 13:00 via Gaetano La Loggia, 1</p> <p><b>GAGLIARDO CESARE</b> Wednesday 10:00 12:00 Sezione di Scienze Radiologiche - Dipartimento di Biomedicina, Neuroscienze e Diagnostica Avanzata.</p> <p><b>GALASSI ALFREDO RUGGERO</b> Tuesday 14:00 15:00 Via del Vespro n 129, AOU Policlinico P. giaccone, Edificio 12 A</p> <p><b>PARDO SALVATORE</b> Monday 09:00 11:00 previo appuntamento telefonico Friday 09:00 11:00 Istituto radiologia , previo appuntamento telefonico 3406432558</p>		

**DOCENTE:** Prof. ALFREDO RUGGERO GALASSI- Sede GORDON

<b>PREREQUISITES</b>	Knowledge in anatomy and physioplogy
<b>LEARNING OUTCOMES</b>	<p>It is expected that the student will demonstrate:</p> <ul style="list-style-type: none"><li>- adequate knowledge of the discussed topics (physiopathology, clinical symptoms, diagnostic and rudiments of medical therapy and of notions related to the rehabilitation of cardiovascular, pulmonary diseases, internal medicine and geriatric diseases).</li><li>- Ability to understand through analytical capacity and ability to establish connections between the various clinical conditions based on the symptom presented by the patient.</li><li>- Ability to apply knowledge and understanding by discussing simple cases and to propose diagnostic work up and rediments of medical and rehabilitative therapy .</li><li>- Provide independent judgments about disciplinary content.</li><li>- Ability to communicate knowledge to the examiner through an appropriate and relevant language. Learning skills by placing the learned topic within an appropriate clinical context. Ability to consult bibliography and scientific text.</li></ul>
<b>ASSESSMENT METHODS</b>	<p>The oral examination will consist of a colloquium aimed at ensuring the possession of the competences and the disciplinary knowledge required by the course and the ability to contextualize and expose. The evaluation will be expressed in thirty. They will be asked open questions to test: a) the acquired knowledge; B) the processing capacities; (C) the possession of adequate exhibition capacity.</p> <p>A. With regard to the verification of acquired knowledge, it will be required: what are the pathophysiological mechanisms underlying the main cardiovascular an pulmonary disease, internal medicine and geriatric diseases, such as the symptoms, such as the main diagnostic tests in the context of the specific pathology in question and rudiments of therapy . It will also be necessary to know the topics related to the rehabilitative treatment of cardiovascular and pulmonary diseases, internal medicine and geriatrics, to know how to apply therapeutic rehabilitation therapies .</p> <p>B. As far as the verification of processing capacity it will be required, at least one of the following three objectives :</p> <p>B1) provide independent judgments about disciplinary content;</p> <p>B2) understand the applications or their implications in the discipline;</p> <p>B3) place disciplinary content within the professional, technological or sociocultural context of reference.</p> <p>C. As regards the examination of the expository capacities, the student must demonstrate an appropriate and relevant language for that context.</p> <p>The examination will be overcome with the minimum score if the student shows at least the rudiments of knowledge and understanding of the topics and he has minimal application competencies for the resolution of concrete cases; he must also be able to arguments and transmit his knowledge to the examiner. Below this threshold, the examination will not be passed. Otherwise the more, with its arguments and expository capabilities, he will be able to interact with the examiner, and the more his knowledge and capacity of application will go into the details of the discipline, the more the score will be positive</p>
<b>TEACHING METHODS</b>	Teaching will be organized through frontal lessons

**DOCENTE:** Prof.ssa EGLE CORRADO- Sede NIGHTINGALE

<b>PREREQUISITES</b>	Basic knowledge of epidemiological, etiopathogenetic aspects of heart diseases, of the cardiovascular and cerebrovascular system. Students will also need to know the basic theoretical and methodological aspects of radiology
<b>LEARNING OUTCOMES</b>	The is aimed at assessing whether the student has acquired the knowledge and understood topics, has acquired the ability to interpret clinical cases and to be autonomous of judgment
<b>ASSESSMENT METHODS</b>	<p>The examination is mainly aimed at verifying the acquired knowledge and the methods of exposing it. It consists of an oral test about the topics listed in this sheet. The student will have to answer at least four oral questions, at least two for each module on different parts of the program with reference to the recommended texts.. Evaluation and criteria: the evaluation is out of thirty. The evaluations will be attributed using all scores from 18 to 30 cum laude considering that the exam will be evaluated 18/30 if the knowledge is just sufficient, 30/30 if they are excellent, 30 cum laude/30 if the knowledge, the ability to discuss the topics, and the exposure with appropriate language are excellent.</p>
<b>TEACHING METHODS</b>	lessons

## MODULE CARDIOVASCULAR SYSTEM DISEASES

*Prof. ALFREDO RUGGERO GALASSI - Sede GORDON, - Sede GORDON*

### SUGGESTED BIBLIOGRAPHY

Cardiologia per studenti e medici di medicina generale. Edizioni Idelson Gnocchi 2020

ESC Guidelines

Trattato di Medicina Cardiovascolare E. Braunwald

<b>AMBIT</b>	10313-Interdisciplinari e cliniche
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

### EDUCATIONAL OBJECTIVES OF THE MODULE

To learn the pathophysiology, the epidemiology, the diagnostic criteria, the clinical presentation, the natural history and treatment of main cardiovascular diseases. The student must also know the main biochemical and instrumental tests useful for diagnostic work up of cardiovascular disease and principles of therapy.

## SYLLABUS

Hrs	Frontal teaching
2	Main symptoms of cardiovascular disease: dyspnea, chest pain, palpitations, syncope
2	Invasive and non invasive cardiological diagnostic tools
2	Atherosclerosis and cardiovascular risks factors
2	Acute coronary Syndromes: STEMI, UA/NSTEMI
2	Chronic ischemic heart disease
2	chronic heart failure
2	Cardiomyopathy
2	Infective endocarditis. Pericardial disease.
2	Valvular heart disease
2	Sudden cardiac death. BLS - D
2	Varicose vein. Deep vein thrombosis. Pulmonary embolism
2	Syncope. Peripheral arterial disease. Acute aortic syndromes.
2	Acute heart failure
2	Interactive discussion of clinical cases
2	Rudiments of Electrocardiography

**MODULE**  
**IMAGE DIAGNOSTICS AND RADIOTHERAPY**

*Prof. CESARE GAGLIARDO - Sede NIGHTINGALE, - Sede NIGHTINGALE*

**SUGGESTED BIBLIOGRAPHY**

Dispense del docente

Cittadini. Diagnostica per immagini e radioterapia. Ediz. illustrata Copertina flessibile – 30 giu 2015

<b>AMBIT</b>	10312-Prevenzione servizi sanitari e radioprotezione
--------------	--

<b>INDIVIDUAL STUDY (Hrs)</b>	45
-------------------------------	----

<b>COURSE ACTIVITY (Hrs)</b>	30
------------------------------	----

**EDUCATIONAL OBJECTIVES OF THE MODULE**

Acquire basic knowledge on ionizing and non-ionizing radiation, health problems related to radiation exposure and relative legislative principles that protect workers exposed to radiation-associated risks. Acquire radiation exposure prevention methods. Acquire patient management methods in a radiology or nuclear medicine unit.

**SYLLABUS**

Hrs	Frontal teaching
8	Knowledge of fundamentals of physics, characterization of ionizing radiation, health problems related to exposure to ionizing radiation
2	Non-ionizing radiation: physical characteristics and application in diagnostic imaging.
8	Principles of Radiobiology
2	Contrast media: classification and characteristics; clinical applications; adverse reactions and related measures. Patient preparation and management.
8	Risks related to exposure to radiation and protective devices. Examples and discussion.
2	Italian Health legislation with particular regard to the principles of applicability of radiation protection for workers exposed to radiation-related risks. Assessment of risks related to radiation exposure.

## MODULE NEUROLOGY

*Prof. FILIPPO BRIGHINA - Sede GORDON, - Sede GORDON*

### SUGGESTED BIBLIOGRAPHY

Materiale didattico (articoli scientifici e set di diapositive) preparato dal docente del modulo. Clinica neurologica di Paolo Pazzaglia, ISBN: 8874882696, Esculapio editore

<b>AMBIT</b>	10313-Interdisciplinari e cliniche
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

### EDUCATIONAL OBJECTIVES OF THE MODULE

Acquiring adequate knowledge of major neurological diseases, and developing good understanding of them.  
Development of the ability to apply acquired knowledge.

## SYLLABUS

Hrs	Frontal teaching
2	Anatomical and physiological bases of clinical neurology
2	Neurological signs and neurological syndromes
2	Instrumental diagnostics, standard techniques and advanced approaches
2	Consciousness and disturbances
1	The cognitive functions and their evaluation
2	Traumatic neurologic disorders
2	cerebrovascular diseases
2	Parkinson's disease and extrapyramidal disorders
2	dementia
1	Headache
1	Brain tumours
3	Neuromuscular diseases
1	Encephalitis and meningitis
1	Epilepsia
2	Demyelinating disorders
Hrs	Practice
2	Neuromuscular diseases
2	Case reports in Neurology

## MODULE NEUROLOGY

*Prof. MARCO D'AMELIO - Sede NIGHTINGALE, - Sede NIGHTINGALE*

### SUGGESTED BIBLIOGRAPHY

J. Cambier, M. Masson, H. Dehen: Neurologia. Editore Masson

<b>AMBIT</b>	10313-Interdisciplinari e cliniche
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

### EDUCATIONAL OBJECTIVES OF THE MODULE

Educational objective of neurology module is to provide students with theoretical and practical tools useful to recognize and evaluate clinical symptoms and conditions that need the contribution of the neurologist. This objective will be pursued through knowledge of some neurological disorders, which will be carried out starting from the understanding of individual clinical cases, with the use of diagnostic algorithms. The student will have to show, with clarity and appropriateness, nurse functions during the welfare and therapeutical approach to neurological disorders. Mechanisms responsible of the origin of some diseases of the nervous system will also be analyzed. It will be ensured that students will learn the procedures for practical application of knowledge and improve their ability to independently access to the main bibliographic and scientific sources of clinical neurology

## SYLLABUS

Hrs	Frontal teaching
2	Semeiology of movement
2	Neuropsychology
2	Epilepsy
2	Perypheral nervous system
2	Mutiple Sclerosis
2	Motor neuron diseases
3	Basal ganglia disorders
4	Cerebrovascular diseases
2	Headaches
2	Brain trauma
2	Infectious diseases
3	Dementia
2	Diseases of the muscle and of the neuromuscular junction

## MODULE IMAGE DIAGNOSTICS AND RADIOTHERAPY

*Prof. SALVATORE PARDO - Sede GORDON, - Sede GORDON*

### SUGGESTED BIBLIOGRAPHY

powerpoint Diagnostica per immagini e radioterapia di Cittadini Giorgio - Cittadini Giuseppe - Sardanelli Francesco Editore: ECIG Genere: scienze mediche. medicina Argomento: diagnostica medica, radioterapia Edizione: 6 Pagine: 1074 ISBN: 8875441383 ISBN-13: 9788875441388 Data pubblicazione: 2008

<b>AMBIT</b>	10312-Prevenzione servizi sanitari e radioprotezione
<b>INDIVIDUAL STUDY (Hrs)</b>	45
<b>COURSE ACTIVITY (Hrs)</b>	30

### EDUCATIONAL OBJECTIVES OF THE MODULE

Knowledge and understanding skills Acquisition: 1. of the proper language of the discipline to understand it and to use it appropriately; 2. of techniques and tools in use for each discipline. Ability to apply knowledge and understanding To be able to: 1 identify the principles of the disciplines to use them in their own field but also to make them complementary to other disciplines, with autonomous uses; 2. Know how to choose appropriate semeiotic interventions and the tools needed for the identified clinical or scientific pathway. Judgment autonomy Being able to identify and communicate the elements that characterize the individual disciplines, to move across disciplinary fields that also involve ophthalmic disciplines with pertinence and competence. Communication skills Being able to expose orally how much you learned and clinical and methodological reasoning, even to an unknowingly public. Learning ability To be able to: 1. Consult the scientific literature on hygiene and health education; 2. Increase the knowledge gained in the course to deepen advanced studies 3. Re-train what you learned through the practice of specific techniques.

## SYLLABUS

Hrs	Frontal teaching
10	Knowing the physical bases of different image methods. Understanding the biological effects of ionizing radiation Knowing the possibilities and limits, indications, contraindications and risks of the different methods of investigation Knowing how to recognize the main normal anatomical structures for a radiology examination Traditional, computerized tomography and magnetic resonance imaging. Possessing elementary knowledge on radiology semeiology of the major pathologies with Reference to the various organs and apparatus Exposing some integrated diagnostic algorithms for the most serious clinical assessments
10	Properties and modes of production of X-rays and ionizing radiation Non-ionizing Radiations: Physical Characteristics and Applications in Diagnostic for Images. Principles of Image Formation (Analog and Digital). Means of contrast: classification and characteristics; Clinical applications; Adverse reactions and related measures. Computed tomography: operating principles. Ultrasound: ultrasound physics and general equipment concepts. Magnetic resonance: physical principles and general concepts of equipment. Nuclear Medicine: Physical Principles and General Equipment Concepts. Vascular and interventional radiology: general and major procedures.
10	Radio-isotopic thyroid study. Thyroid ultrasound: indications and limits. Ecocolor Doppler in thyroid and breast disease. Breast ultrasound: directions and limits. Mammography: technique and directions. Nodular breast disease: study protocols. OSTEO - ARTICULAR APPLIANCE Principal radiological and radioisotopic study of the skeleton. RESPIRATORY APPARATUS Thorax and Mediastine Study Techniques. DANGEROUS APPLIANCE Esophageal pathology: study techniques and indications. FEGATO - VIEW OF BILIARIES - PANCREAS - MILZA Methods for the study of gallbladder and biliary tract. URO-GENITAL APPARATUS AND OUTSIDE Uro-genital apparatus study techniques. Ovarian diseases. Uterine diseases. 4LezioniSISTEMA NERVOSO -Encefalo: principali metodiche di studio. -Processi espansivi endocranici: protocolli di studio. -Accidenti vascolari encefalici: ictus emorragico e trombotico. - Midollo spinale: principali metodiche di studio ed indicazioni NERVOUS SYSTEM -Encefalo: major study methods. -Exocranial Expansion Processes: Study Protocols. -Evascular vascular accidents: haemorrhagic and thrombotic stroke. - Spinal cord: main study methods and indications

**MODULE**  
**CARDIOVASCULAR SYSTEM DISEASES**

*Prof.ssa EGLE CORRADO - Sede NIGHTINGALE, - Sede NIGHTINGALE*

**SUGGESTED BIBLIOGRAPHY**

Rugarli C., Medicina Interna Sistematica.  
S. Dalla Volta. Malattie del cuore e dei vasi.

<b>AMBIT</b>	10313-Interdisciplinari e cliniche
--------------	------------------------------------

<b>INDIVIDUAL STUDY (Hrs)</b>	45
-------------------------------	----

<b>COURSE ACTIVITY (Hrs)</b>	30
------------------------------	----

**EDUCATIONAL OBJECTIVES OF THE MODULE**

Objective of the module and the description of some epidemiological, pathogenetic, and clinical-prognostic of cardiovascular diseases . Completing the module description and application of the main instrumental diagnostic methods used in practice cardiology and angiology (ECG, echocardiogram, Echocolor Doppler , dynamic ECG , exercise stress tests) and the knowledge of the mode of some invasive instrumental techniques ( coronary angiography) or emergency (defibrillation).

**SYLLABUS**

Hrs	Frontal teaching
2	anatomy and physiology of the heart and vascular system. elementary principles of . Notions of hemodynamic.
4	Electrocardiography: basic principles and practical applications.
2	Arrhythmias and their classification. Concept of ECG Holter.
4	ischemic heart disease: definition, epidemiology, risk factors, pathogenesis, classification, pathology factors, clinical, principles of diagnosis and therapy.
2	Deep venous thrombosis and pulmonary embolism
2	Atherosclerosis, risk factor
2	Cardiomyopathies and myocarditis
2	Infective endocarditis
2	Pericardial diseases
2	Valves disease
2	Sudden cardiac death and cardiac life support
2	Arterial hypertension
2	chest pain