

# UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Biomedicina, Neuroscienze e Diagnostica avanzata					
ACADEMIC YEAR	2017/2018					
BACHELOR'S DEGREE (BSC)	BIOMEDICAL LABORATORY TECHNIQUES					
INTEGRATED COURSE	INTERNAL MEDICINE AND IMAGE DIAGNOSTICS - INTEGRATED COURSE					
CODE	15230					
MODULES	Yes	Yes				
NUMBER OF MODULES	2	2				
SCIENTIFIC SECTOR(S)	MED/09, MED/36					
HEAD PROFESSOR(S)	GALIA MASSIMO		)	Professore Ordinario	Univ. di PALERMO	
OTHER PROFESSOR(S)	CAROLLO	CAROLLO CATERINA		Ricercatore	Univ. di PALERMO	
	GALIA MASSIMO		)	Professore Ordinario	Univ. di PALERMO	
CREDITS	6					
PROPAEDEUTICAL SUBJECTS						
MUTUALIZATION						
YEAR	3					
TERM (SEMESTER)	1° semester					
ATTENDANCE	Mandatory					
EVALUATION	Out of 30					
TEACHER OFFICE HOURS	CAROLLO CATERINA					
	Thursday	11:00	14:00	Dipartimento di Medicina Intern Medicina Clinica e Respiratoria	a e Specilistica. U.O. di	
	GALIA MASSIMO					
	Monday	9:00	12:00	Sezione di Scienze Radiologich piano.Dipartimento di Biomedic Diagnostica avanzata.	e, stanza n. 93, primo ina, Neuroscienze e	

DOCENTE: Prof. MASSIMO GALIA

PREREQUISITES	Knowing the human physiology
LEARNING OUTCOMES	Knowing and understanding the basic concepts of internal medicine and diagnostic imaging
ASSESSMENT METHODS	The sufficiency threshold will be reached if the student shows knowledge and understanding of the issues at least in broad outline, and has application skills sufficient; he must also have presentation and argumentative skills allowing the transmission of his knowledge to the examiner. Below this threshold, the examination will be insufficient. The more the candidate will be able to interact with the examiner with his argumentative and presentation skills, and the more his knowledge and application capabilities will go into detail on the subjects under evaluation, the more the judgement will be positive. The evaluation is expressed using a 30-point scale. ECTS grades: A – A+ Excellent (30-30 cum laude) - Grade descriptors : 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. ECTS grade : B Very good (27-29) - Grade descriptors: 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. ECTS grade: C Good (24-26)- Grade descriptors: Good knowledge of teaching contents and good language control; the students should be able to apply their knowledge to solve problems of medium complexity ECTS grade: D Satisfactory (21-23)- Grade descriptors: 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. ECTS grade: E Sufficient (18-20) - Grade descriptors: Minimum teaching content knowledge, often limited to the main topic; modest ability to use the subject specific language and independently apply the acquired knowledge. ECTS grade: F Fail (1-17) - Grade descriptors: Lack of an acceptable knowledge of the main teaching content knowledge; very little or no ability to use the specific
TEACHING METHODS	Lectures and tutorials

#### MODULE IMAGE DIAGNOSTICS AND RADIOTHERAPY

Prof. MASSIMO GALIA

# SUGGESTED BIBLIOGRAPHY

SUGGESTED BIBLIUGRAPHY	
Diagnostica per immagini e radioterapia di Cittadini Giorgio - C 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	Cittadini
AMBIT	10350-Scienze della prevenzione e dei servizi sanitari
INDIVIDUAL STUDY (Hrs)	45
COURSE ACTIVITY (Hrs)	30

## EDUCATIONAL OBJECTIVES OF THE MODULE

The students have to acquire the knowledge about the characteristics of ionizing and non-ionizing radiation, with reference to radiobiology and radioprotection. The necessary knowledge on contrast mediums, with reference to their characteristics and indications for clinical use will be provided. Protocols of contrast medium administration, contraindications and adverse effects will be discussed. The diagnostic algorithms of the most common diseases of organs and systems will be showed.

## **SYLLABUS**

Hrs	Frontal teaching
2	Main properties and methods of production of X-rays and ionizing radiation (electromagnetic and corpuscular).
1	Non-ionizing radiation: characteristics and applications.
1	How to obtain images through ionizing radiation.
6	Contrast medium: classification and characteristics; clinical applications; adverse reactions and related treatment.
2	Interaction between ionizing radiation and tissues: direct and indirect action of ionizing radiation.
3	Dose distribution over time. Cellular radiosensitivity. Oxygen effect. Radiosensitizers and radioprotective agents. Damage (acute and chronic) to ionizing radiation.
1	Radioprotection of the worker and the patient.
2	Diagnostic techniques and diagnostic algorithms and semiotics of the most common respiratory diseases.
2	Diagnostic techniques and diagnostic algorithms and semiotics of the most common digestive diseases.
2	Diagnostic techniques and definition of diagnostic algorithms and semiotics of the most common diseases of liver, pancreas and biliary tree.
2	Diagnostic techniques and diagnostic algorithms and semiotics of the most common diseases of the uro-genital and adrenal.
2	Diagnostic techniques and diagnostic algorithms and semiotics of the most common diseases of the cardiovascular and nervous system.
Hrs	Practice
4	Diagnostic techniques and diagnostic algorithms and semiotics of the most common diseases.

## MODULE INTERNAL MEDICINE

#### Prof.ssa CATERINA CAROLLO

#### SUGGESTED BIBLIOGRAPHY

Harrison. Medicina Interna.			
АМВІТ	10339-Primo soccorso		
INDIVIDUAL STUDY (Hrs)	45		
COURSE ACTIVITY (Hrs)	30		

EDUCATIONAL OBJECTIVES OF THE MODULE

The course aims to give students the knowledge on internal pathologies of interest in the context of the biomedical laboratory. It will be discussed in details the epidemiology, etiology, pathogenesis as well as symptoms, diagnosis, therapy and prognosis of internal pathologies of more frequent observation in the context of biomedical laboratory. The course will be completed by a description of clinical cases. Students will acquire the clinical knowledge on internal pathologies of interest in the context of biomedical laboratory, with specific language in that clinical setting, in order to recognize the more common medical diseases and the specific clinical approaches.

Hrs Frontal teaching   30 INTRODUCTION TO INTERNAL MEDICINE (8 hours)   - Approach to internal medicine - Physical examination   - Medical record - Hyperthermia and fever   - Wrists arterial and venous - Blood Pressure   PHYSICAL PAIN (8 hours) - Introduction   - Headache - Chest pain   - Abdominal pain - Kidney pain   - Kidney pain - Revente pain	SYLLABUS	
30 INTRODUCTION TO INTERNAL MEDICINE (8 hours)   - Approach to internal medicine   - Physical examination   - Medical record   - Hyperthermia and fever   - Wrists arterial and venous   - Blood Pressure   PHYSICAL PAIN (8 hours)   - Introduction   - Headache   - Chest pain   - Abdominal pain   - Kidney pain   - Bournatio pain	Hrs	Frontal teaching
SIGNS AND SYMPTOMS OF MAJOR DISEASES (8 hours) CLINICAL MANAGEMENT (DIAGNOSIS, THERAPY AND PROGNOSIS) OF MAJOR	30	INTRODUCTION TO INTERNAL MEDICINE (8 hours) - Approach to internal medicine - Physical examination - Medical record - Hyperthermia and fever - Wrists arterial and venous - Blood Pressure PHYSICAL PAIN (8 hours) - Introduction - Headache - Chest pain - Abdominal pain - Kidney pain - Rheumatic pain SIGNS AND SYMPTOMS OF MAJOR DISEASES (8 hours) CLINICAL MANAGEMENT (DIAGNOSIS, THERAPY AND PROGNOSIS) OF MAJOR