



UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Biomedicina, Neuroscienze e Diagnostica avanzata		
ACADEMIC YEAR	2021/2022		
MASTER'S DEGREE (MSC)	MEDICINE AND SURGERY		
INTEGRATED COURSE	SYSTEMATIC PATHOLOGY I - INTEGRATED COURSE		
CODE	13246		
MODULES	Yes		
NUMBER OF MODULES	3		
SCIENTIFIC SECTOR(S)	MED/22, MED/11, MED/10		
HEAD PROFESSOR(S)	SCICHLONE NICOLA	Professore Ordinario	Univ. di PALERMO
	PECORARO FELICE	Professore Ordinario	Univ. di PALERMO
OTHER PROFESSOR(S)	CORRADO EGLE	Professore Associato	Univ. di PALERMO
	GALASSI ALFREDO	Professore Ordinario	Univ. di PALERMO
	RUGGERO		
	NOVO GIUSEPPINA	Professore Associato	Univ. di PALERMO
	BONSIGNORE MARIA	Professore Ordinario	Univ. di PALERMO
	ROSARIA		
	SCICHLONE NICOLA	Professore Ordinario	Univ. di PALERMO
	PECORARO FELICE	Professore Ordinario	Univ. di PALERMO
	BATTAGLIA	Professore Associato	Univ. di PALERMO
	SALVATORE		
CREDITS	10		
PROPAEDEUTICAL SUBJECTS	17453 - PATHOPHYSIOLOGY AND MEDICAL METHODOLOGY - INTEGRATED COURSE		
MUTUALIZATION			
YEAR	3		
TERM (SEMESTER)	2° semester		
ATTENDANCE	Mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	<p>BATTAGLIA SALVATORE Monday 15:00 17:00 Al Policlinico. Presso Pneumologia nel il plesso di Oculistica, al 1° piano. In alternativa presso il Reparto di degenza in Clinica Medica I. NOTA BENE: a causa dei turni di guardia e' necessario concordare il ricevimento con appuntamento tramite e-mail: salvatore.battaglia@unipa.it. Per lo stesso motivo il ricevimento e' spesso possibile anche in altri giorni della settimana.</p> <p>BONSIGNORE MARIA ROSARIA Monday 15:00 17:00 Ospedale Cervello, Edificio B, 2° piano</p> <p>CORRADO EGLE Thursday 12:00 14:00 U.O.C di Cardiologia</p> <p>GALASSI ALFREDO RUGGERO Tuesday 14:00 15:00 Via del Vespro n 129, AOU Policlinico P. giaccone, Edificio 12 A</p> <p>NOVO GIUSEPPINA Monday 11:00 13:00 Il ricevimento verra svolto previo appuntamento in data ed orario da concordare presso il Reparto di Cardiologia. AOUP- Palermo o Cefpas di CL.</p> <p>PECORARO FELICE Tuesday 14:00 16:00</p> <p>SCICHLONE NICOLA Monday 13:00 16:00 AOUP Giaccone - UOC di Pneumologia - Padiglione 5 A</p>		

	SCICHLONE NICOLA
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DOCENTE: Prof. FELICE PECORARO- Sede CHIRONE

PREREQUISITES	
LEARNING OUTCOMES	
ASSESSMENT METHODS	
TEACHING METHODS	

DOCENTE: Prof. FELICE PECORARO- Sede HYPATIA

PREREQUISITES	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 diseases and principles of therapy.
LEARNING OUTCOMES	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
ASSESSMENT METHODS	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.
TEACHING METHODS	lessons

MODULE CARDIOLOGY

Prof. ALFREDO RUGGERO GALASSI - Sede IPPOCRATE, - Sede IPPOCRATE

SUGGESTED BIBLIOGRAPHY

Cardiologia per studenti e medici di medicina generale. Edizioni Idelson Gnocchi 2020
ESC Guidelines
Trattato di Medicina Cardiovascolare E. Braunwald

AMBIT	50407-Formazione clinica interdisciplinare e medicina basata sulle evidenze
INDIVIDUAL STUDY (Hrs)	60
COURSE ACTIVITY (Hrs)	40

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 VASCULAR SURGERY

Prof. FELICE PECORARO - Sede CHIRONE, - Sede CHIRONE, - Sede HYPATIA, - Sede HYPATIA, - Sede IPPOCRATE, - Sede IPPOCRATE

SUGGESTED BIBLIOGRAPHY

-Morfologia & Clinica. Architettura e chirurgia vascolare. Storia medica. Collana 'De Arte Medendi' - "plumelia" Edizioni – Bagheria (PA) ISBN. 978-88-98731-63-3

- Chirurgia Vascolare ed Endovascolare. Eds: G. Regina. 2014 Piccin

-www.unipapress.it - Sezione atti e convegni – Aggiornamenti di Chirurgia Vascolare 2016

AMBIT	50407-Formazione clinica interdisciplinare e medicina basata sulle evidenze
INDIVIDUAL STUDY (Hrs)	30
COURSE ACTIVITY (Hrs)	20

EDUCATIONAL OBJECTIVES OF THE MODULE

Acquisition of technical language, knowledge and competence on the following topics:

- Acute ischemic disease
- Aneurysms
- Cerebrovascular disease
- Aortic dissection / Mesenteric ischemia
- Leriche Syndrome / Subclavian steal syndrome / Popliteal entrapment syndrome
- Peripheral arterial disease
- Varicose disease / Superficial thrombophlebitis / Deep Venous Thrombosis
- Vascular injuries / superior outlet syndrome
- Buerger disease/ Nephrovascular hypertension
- Diabetic foot / Lymphatic disease

SYLLABUS

Hrs	Frontal teaching
2	Acute Ischemia
2	Aneurysms
2	Carotids
2	Aortic dissections/mesenteric ischemia
2	Leriche syndrome/Subclavian Steal Syndrome/Popliteal artery entrapment syndrome
2	Peripheral arterial disease
2	Vein diseases
2	Extremities Trauma/Thoracic outlet syndrome
2	Buerger disease/renovascular hypertension
2	Diabetic foot/Lymphatic diseases

MODULE RESPIRATORY SYSTEM DISEASES

Prof. NICOLA SCICCHILONE - Sede IPPOCRATE, - Sede IPPOCRATE

SUGGESTED BIBLIOGRAPHY

PROIEZIONI IN POWER POINT DEL DOCENTE

TESTI CONSIGLIATI. Clini E, Pelaia G (eds). Manuale di Pneumologia. Edizioni Edises 2017

Rugarli C (Ed). Medicina interna sistematica. EDRA Masson ottava edizione

Bellia V. (Ed). Core Curriculum Malattie respiratorie. Milano: McGraw Hill 2011.

AMBIT	20949-Attività formative affini o integrative
INDIVIDUAL STUDY (Hrs)	60
COURSE ACTIVITY (Hrs)	40

EDUCATIONAL OBJECTIVES OF THE MODULE

Knowledge and understanding of respiratory diseases: At the end of the Course, students are expected to know the main clinical features and pathophysiology of the most prevalent respiratory disease, as indicated in the attached module. Emphasis will be placed on the diagnostic approach to respiratory diseases, including evaluation and understanding of the physical examination and diagnostic procedures of the main respiratory diseases. Students will learn how to implement primary and secondary prevention modalities and the main interactions between respiratory disease and other disease states. At the end of the Course, students will be able to correctly gather anamnestic information, perform clinical examination of the respiratory system, formulate diagnostic hypotheses, and set the correct diagnostic workup in terms of cost-to-benefit ratio. Application of knowledge: Ability to recognize the most common respiratory diseases and plan specific medical interventions. Ability to provide adequate medical solutions to patients' needs related to respiratory diseases. Students should be able to apply the knowledge acquired during the Course in the work context. Judgement: Ability to evaluate the medical implications associated with respiratory diseases. Communication skills: Ability to summarize the current state of the respiratory problem and its prognostic implications to medical staff, patients and relatives who might ask about it. Learning skills: Ability to update current knowledge in respiratory medicine, through consultation of scientific publications of the field.

SYLLABUS

Hrs	Frontal teaching
2	Approach to the patient with respiratory problems. Signs and symptoms in pulmonology. Basic knowledge and interpretation of pulmonary function tests. Basic knowledge and interpretation of the most important questionnaires in pulmonology (Fagenstrom questionnaire; Motivational Mondor test; St. George Respiratory Questionnaire; COPD assessment test; Medical Research Council test for Dyspnoea, etc.).
4	Bronchial asthma. Definition, epidemiology, risk factors, pathophysiology, clinical and instrumental diagnosis, natural history and complications, Therapy
4	Chronic obstructive pulmonary disease (COPD). Definition, epidemiology, risk factors, pathophysiology, clinical and instrumental diagnosis, natural history and complications, Medical and surgical therapy
6	Lung tumors. Definition, epidemiology, risk factors, pathophysiology, clinical and instrumental diagnosis, natural history and complications, Medical and surgical therapy. Supportive care in lung cancer
6	Pleural diseases. Pleural effusions. Pneumothorax. Pleural malignant mesothelioma. Definition, epidemiology, risk factors, pathophysiology, clinical and instrumental diagnosis, natural history and complications, Medical and surgical therapy. Thoracentesis. Pleurostomy and related procedures.
4	Community-acquired pneumonias (CAP) and hospital-acquired pneumonias (HAP). Pneumonias in the immuno-compromised host. Lung abscess. Definition, epidemiology, risk factors, pathogenesis, pathology, clinical and instrumental diagnosis, natural history and complications, Therapy and prophylaxis.
2	Bronchiectasis. Definition, epidemiology, risk factors, pathophysiology, clinical and instrumental diagnosis, natural history and complications, Therapy.
2	Pulmonary tuberculosis. The history of tuberculosis. Definition, epidemiology, risk factors, pathogenesis, pathology, clinical and instrumental diagnosis, natural history and complications, Therapy and prophylaxis. Tuberculosis in immune-deficiencies.
2	Diffuse interstitial lung disorders: classification. Idiopathic pulmonary fibrosis: definition, epidemiology, risk factors, pathogenesis, pathology, clinical and instrumental diagnosis, natural history and complications, Medical and surgical therapy. Lung transplantation.
2	Pulmonary embolism. Definition, epidemiology, risk factors, pathophysiology, clinical and instrumental diagnosis, natural history and complications, Therapy and long-term prophylaxis
2	Obstructive sleep apnea syndrome (OSAS) and other sleep-related lung disorders. Definition, epidemiology, risk factors, pathophysiology, clinical and instrumental diagnosis, natural history and complications, Therapy.
4	Acute and chronic respiratory failure. Definition, epidemiology, risk factors, pathophysiology, clinical and instrumental diagnosis, natural history and complications. Oxygen therapy and non invasive mechanical ventilation: basic principles, indications and side effects.

MODULE RESPIRATORY SYSTEM DISEASES

Prof. SALVATORE BATTAGLIA - Sede HYPATIA, - Sede HYPATIA

SUGGESTED BIBLIOGRAPHY

Rugarli, Medicina interna sistematica - 2 vol. Ottava edizione. ISBN: 9788821450952

AMBIT	20949-Attività formative affini o integrative
INDIVIDUAL STUDY (Hrs)	60
COURSE ACTIVITY (Hrs)	40

EDUCATIONAL OBJECTIVES OF THE MODULE

The course aims to provide students with:

- a) the skills for the anamnesis and the execution of the physical examination of the patient for the respiratory system.
- b) The basic knowledge of pathophysiology, epidemiology, clinical presentation, diagnostic criteria, natural history, therapy, prognosis and complications of the main diseases of the respiratory system.
- c) The basic skills to perform a correct diagnostic and therapeutic process of the main diseases of the respiratory system.

The student must know the basic notions relating to the main instrumental tests useful for the diagnosis and follow-up of individual diseases of the respiratory system, with particular reference to respiratory function tests, blood gas analysis and acid-base balance, and imaging of the respiratory system.

The student must be able to recognize a paradigmatic case of respiratory diseases addressed in the Course program and to propose an appropriate basic diagnostic and therapeutic path.

SYLLABUS

Hrs	Frontal teaching
1	Anatomy and respiratory physiology: basic knowledge
3	Main symptoms of respiratory diseases: cough, dyspnea, hemoptysis and chest pain. Physical examination in chest diseases.
4	Chronic obstructive pulmonary disease (COPD): 1) Chronic bronchitis; 2) Pulmonary emphysema; 3) The damages of tobacco smoke.
2	Asthma
1	Inhalation therapy in asthma and COPD: aerosols and portable devices for inhaled drugs.
3	Lung cancer
3	Bronchiectasis: bronchiectasis and cystic fibrosis and non-cystic bronchiectasis.
1	Obstructive sleep apnea syndrome (OSAS).
2	Infection pneumonia (bacterial and viral): CAP; hospital-acquired pneumonia (HAP and VAP); Aspiration pneumonia, Pneumonia in the immunocompromised. COVID-19 and pandemics.
3	Pulmonary physiopathology and respiratory function tests: Simple and global spirometry; Bronchodilation test; Bronchoprovocation test with methacholine; Alveolar-capillary diffusion of CO; Arterial blood gas analysis and non-invasive saturation; Exhaled nitric oxide (FeNO), Nocturnal polygraphy (cardio-respiratory monitoring during sleep). 6-minute walk test; Dyspnea scales.
3	The acute and chronic respiratory failure; Oxygen therapy; The non-invasive mechanical ventilation (NIV) and CPAP
2	Diffuse pulmonary diseases: 1) Idiopathic pulmonary fibrosis; 2) Sarcoidosis. 3) Other rare and orphan interstitial lung diseases.
1	pulmonary tuberculosis.
2	Pleural diseases: 1) pleural effusions; 2) pneumothorax; 3) Mesothelioma.
3	Physiotherapy and Rehabilitation in respiratory diseases: general concepts, techniques; mechanical devices; breathing exercises.
2	Invasive respiratory diagnostics and interventional pneumology
3	Pulmonary vascular diseases: Pulmonary Embolism; pulmonary arterial hypertension; Pulmonary vasculitis
1	Respiratory emergency.

MODULE CARDIOLOGY

Prof.ssa EGLE CORRADO - Sede HYPATIA, - Sede HYPATIA

SUGGESTED BIBLIOGRAPHY

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

AMBIT	50407-Formazione clinica interdisciplinare e medicina basata sulle evidenze
INDIVIDUAL STUDY (Hrs)	60
COURSE ACTIVITY (Hrs)	40

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

MODULE CARDIOLOGY

Prof.ssa GIUSEPPINA NOVO - Sede CHIRONE, - Sede CHIRONE

SUGGESTED BIBLIOGRAPHY

Cardiologia per studenti e medici di medicina generale. Edizioni Idelson Gnocchi
ESC guidelines (www.escardio.org)
Trattato di Medicina Cardiovascolare. E. Braunwald.

AMBIT	50407-Formazione clinica interdisciplinare e medicina basata sulle evidenze
INDIVIDUAL STUDY (Hrs)	60
COURSE ACTIVITY (Hrs)	40

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 diseases and principles of therapy.

SYLLABUS

Hrs	Frontal teaching
2	Main Symptoms of cardiovascular diseases: Dyspnea, chest pain, palpitations and syncope. Cardiovascular semeiotics.
2	Rudiments of Electrocardiography
4	Invasive and non invasive diagnostic tools
2	Atherosclerosis and cardiovascular risk factors
2	Stable coronary artery disease
4	Acute coronary syndromes
4	Valvular heart disease
2	Cardiomyopathy
2	Chronic heart failure
2	Acute heart failure
2	Cardiac arrhythmias
2	Sudden cardiac death. BLS-D
2	Varicose vein. Deep vein thrombosis. Pulmonary embolism.
2	Congenital heart disease
2	Infective endocarditis. Pericardial disease.
2	Syncope. Peripheral arterial disease. Acute aortic syndromes
2	Interactive discussion of clinical cases

MODULE RESPIRATORY SYSTEM DISEASES

Prof.ssa MARIA ROSARIA BONSIGNORE - Sede CHIRONE, - Sede CHIRONE

SUGGESTED BIBLIOGRAPHY

Bellia V: Core Curriculum. MacGraw-Hill 2011

Rugarli: Medicina Interna Sistemica, 8° edizione, 2021

Oliaro A - Loizzi M- Malattie dell'Apparato Respiratorio – Pneumologia e Chirurgia Toracica, Minerva Medica 2021

AMBIT	20949-Attività formative affini o integrative
INDIVIDUAL STUDY (Hrs)	60
COURSE ACTIVITY (Hrs)	40

EDUCATIONAL OBJECTIVES OF THE MODULE

Knowledge and skills: At the end of the course, students will know the main problems concerning the most common respiratory diseases, indicated in the associated module, their pathophysiology, the diagnostic approach, the symptoms and signs of the most common respiratory diseases, and interventions aimed at primary and secondary prevention. In addition, students will know Basic Life Support maneuvers. Finally, the interaction between respiratory and other diseases will be discussed. At the end of the course, students will be able to collect medical history and symptoms and signs in the respiratory field, formulate a diagnostic hypothesis, and request further diagnostic examinations according to cost/benefit ratios.

Application of knowledge and skills: Ability to recognize the most prevalent respiratory diseases and plan specific medical interventions. Ability to provide adequate medical response to the needs of the patients with respiratory disorders. Students will develop skills to apply the knowledge acquired during the course to clinical practice. Judgement: students will be able to evaluate the medical implications associated with respiratory diseases. Communication skills: students will be able to communicate the significance and prognosis of the respiratory condition to medical staff, patients and relatives. Learning skills: ability to update knowledge on respiratory diseases and linked medical sciences by consultation of scientific journals

SYLLABUS

Hrs	Frontal teaching
1	Anatomy and basic physiology of the respiratory system
3	Main symptoms of respiratory disease: cough, dyspnea, emphysema, chest pain. Main signs of respiratory disease: rales, wheezing, cyanosis, clubbing
2	Methods used in respiratory pathophysiology: spirometry, arterial blood gases, pulse oximetry, walking test, polygraphic monitoring during sleep
3	Chronic obstructive pulmonary disease (COPD): chronic bronchitis, emphysema. Definition, epidemiology, risk factors, pathology, symptoms and signs; natural history, complications, treatment.
3	Bronchial asthma and respiratory allergies. Definition, epidemiology, risk factors, pathophysiology, pathology, symptoms and signs, natural history, complications and treatment.
3	Infectious pneumonia: community acquired ((CAP) and hospital-acquired (HAP) pneumonia. COVID-19 pneumonia. Pneumonia in the immunocompromised host and aspiration pneumonia (ab ingestis). Lung abscess. Main pathogens in CAP and HAP (viruses, bacteria, mycetes). Definition, epidemiology, risk factors, pathophysiology, pathology, symptoms and signs, natural history, complications and treatment.
3	Pulmonary tuberculosis. Definition, epidemiology, risk factors, pathophysiology, pathology, symptoms and signs, natural history, complications and treatment.
3	Acute and chronic respiratory failure. Definition, epidemiology, risk factors, pathophysiology, pathology, symptoms and signs, natural history, complications and treatment.
3	Obstructive sleep apnea syndrome Definition, epidemiology, risk factors, pathophysiology, pathology, symptoms and signs, natural history, complications and treatment.
3	Noninvasive mechanical ventilation (NIV): basic knowledge of NIV modalities, circuits and masks. Complications and side effects of NIV. Oxygen therapy in acute and chronic respiratory failure
1	Bronchiectasis: Definition, epidemiology, risk factors, pathophysiology, pathology, symptoms and signs, natural history, complications and treatment.
3	Diffuse infiltrative pneumonias: idiopathic pulmonary fibrosis, sarcoidosis Definition, epidemiology, risk factors, pathophysiology, pathology, symptoms and signs, natural history, complications and treatment.
1	Pulmonary edema: pathophysiology and clinical aspects.
2	Pulmonary embolism. Definition, epidemiology, risk factors, pathophysiology, pathology, symptoms and signs, natural history, complications and treatment.
3	Pleural diseases: pleural effusions, pneumothorax, mesothelioma. Definition, epidemiology, risk factors, pathophysiology, pathology, symptoms and signs, natural history, complications and treatment.
3	Lung cancer. TNM classification; pathology of malignant pulmonary neoplasms. Basic knowledge on treatment of pain, and nurse assistance in lung neoplasms.