UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Biomedicina, Neuroscienze e Diagnostica avanzata
ACADEMIC YEAR	2022/2023
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)	SCICHILONE 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 RUGGERO — Professore Ordinario — Univ. di PALERMO NOVO GIUSEPPINA — Professore Associato — Univ. di PALERMO BONSIGNORE MARIA ROSARIA — Professore Ordinario — Univ. di PALERMO SCICHILONE NICOLA — Professore Ordinario — Univ. di PALERMO PECORARO FELICE — Professore Ordinario — Univ. di PALERMO BATTAGLIA SALVATORE — Professore Associato — Univ. di PALERMO
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	**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. **BONSIGNORE MARIA ROSARIA** Monday 15:00 17:00 Ospedale Cervello, Edificio B, 2° piano **CORRADO EGLE** Thursday 12:00 14:00 U.O.C di Cardiologia **GALASSI ALFREDO RUGGERO** Tuesday 14:00 15:00 Via del Vespro n 129, AOU Policlnico P. giaccone, Edificio 12 A **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. **PECORARO FELICE** Tuesday 14:00 16:00 **SCICHILONE NICOLA** Monday 13:00 16:00 AOUP Giaccone - UOC di Pneumologia - Padiglione 5 A

	SCICHILONE NICOLA

DOCENTE: Prof. FELICE PECORARO- *Sede CHIRONE, - Sede HYPATIA*

PREREQUISITES	1. Human anatomy 2. Vascular anatomy 3. Vascular physiology 4. Fluid dynamics 5. Pathophysiology atherosclerotic process 6. Pathophysiology of inflammation
LEARNING OUTCOMES	Knowledge and understanding: Knowledge of epidemiology, of etiology and pathogenesis, of clinical features, of diagnosis of vascular disease diseases including arterial, venous and lymphatic disorders. Pre-clinical knowledge of treatment planning and implementation of surgical therapy of vascular disease Theoretical and pre-clinical knowledge of vascular disease prognosis and indication to treatments. Actual orientations of vascular disease management. Knowledge of technical language used in vascular surgery relevant to the subjects. Applying knowledge and understanding: Ability to understand the nature, advantages and limits of vascular surgery treatments in vascular diseases. Ability in evaluating the influence of local and systemic factors on the therapeutic outcomes. Making judgements: Ability to independently - diagnose vascular diseases including arterial, venous and lymphatic disorders; - plan treatment for vascular diseases; - advise prognostic factors in vascular diseases Communication skills: Ability to correctly describe clinical features of vascular diseases. Ability to communicate diagnosis and prognosis to patients. Ability to present patients with the advantages and limits of vascular treatments. Learning skills: Ability to stay up to date with scientific publications in the fields of vascular surgery. Ability to use the knowledge acquired to attend postgraduate courses.
ASSESSMENT METHODS	Oral assessment. This assessment is used to evaluate the student's knowledge and understanding of the program content, independent judgment, ability to apply acquired knowledge and specific technical terminology. Minimum number of questions: the student will have to answer a minimum of three questions posed orally which will focus on the subjects covered in the program, making reference to suggested texts. ASSESSMENT CRITERIA The assessment grades are given as numerical scores awarded out of a possible 30 points, and as follows: - 30 - 30 cum laude - ECTS grades: Excellent (A – A+) Result: Excellent knowledge of the taught subject matter. The student demonstrates good analytic-synthetic capabilities and is able to apply knowledge to resolve highly complex problems. - 27 – 29 – ECTS grades: Very good (B) Result: Very good knowledge of the taught subject matter and good use of language. The student demonstrates analytic-synthetic capabilities and is able to apply knowledge to resolve some complex problems. - 24 – 26 – ECTS grades: Good (C) Result: Good knowledge of the taught subject matter and good use of language. The student is able to apply knowledge to resolve problems of medium complexity. - 21 – 23 – ECTS grades: Satisfactory (D) Result: Reasonable knowledge of the taught subject matter, in some cases limited to the main topics. Acceptable use of technical language and capacity to apply acquired knowledge independently. - 18 – 20 – ECTS grades: Sufficient (E) Result: Minimal knowledge of the taught subject matter, often limited to the main topics. Modest use of technical language and some capacity to apply acquired knowledge independently. - 1 – 17 – ECTS grades: Fail (F) Result: Unacceptable knowledge of the taught subject matter. Little or no use of technical language and capacity to apply acquired knowledge independently. Exam failed.
TEACHING METHODS	Lectures

DOCENTE: Prof. NICOLA SCICHILONE- *Sede IPPOCRATE*

PREREQUISITES	Basic knowledge of the anatomy and physiology of the cardiovascular and respiratory systems. Basic knowledge of microbiology and biochemistry with reference to cardiovascular and respiratory diseases.
LEARNING OUTCOMES	- Knowledge and understanding: knowledge of the essential elements of anatomy, physiology and pathology of the cardiovascular and respiratory systems. - Ability to apply knowledge and understanding: ability to recognize and diagnose the main pathologies of respiratory and cardiovascular relevance, as well as to frame the clinical signs, in these districts, of systemic pathologies. - Independent judgment: possibility of formulating diagnostic procedures for the assessment of the main respiratory and cardiovascular diseases. - Communication skills: ability to interact in a multi-specialist field and with the organs of the NHS, and to direct the patient towards a more effective and prompt diagnosis and therapy of the main respiratory and cardiovascular diseases. - Learning skills: acquisition of knowledge to enable continuous training in the field of the main respiratory and cardiovascular diseases.
ASSESSMENT METHODS	The candidate will have to answer at least two / three questions posed orally, on all the parts of the program, with reference to the recommended texts and lectures. The final test aims to assess whether the student has knowledge and understanding of the topics, has acquired interpretative competence and autonomy of judgment of concrete cases. The sufficiency threshold will be reached when the student shows knowledge and understanding of the topics at least in general lines and has minimal application skills in order to solve concrete cases; he must also possess expository and argumentative skills such as to allow the transmission of your knowledge to the examiner. Below this threshold, the examination will be insufficient. The more, however, the candidate with his argumentative and expository skills manages to interact with the examiner, the more his knowledge and application skills go into the detail of the discipline being tested, the more the evaluation will be positive. The evaluation is out of thirty and will be graded as follows: - Excellent knowledge of the contents of the teachings; the candidate demonstrates high analytical-synthetic ability and is able to apply knowledge for the solution of complex clinical questions (Grade: 30, 30L; Assessment: Excellent) - Excellent knowledge of teaching content and excellent language properties; the student demonstrates analytical-synthetic ability and is able to apply knowledge to solve clinical questions, (Score 27-29; Evaluation: Almost Excellent) - Good knowledge of teaching content and good language skills; the student is able to apply knowledge to solve clinical questions of medium complexity (Score 24-26; Evaluation: good) - Fair knowledge of the teaching contents, in some cases limited to the main topics; acceptable ability to use specific language discipline and to independently apply the acquired knowledge (Score: 21-23; Evaluation: fair) - Minimum knowledge of the teaching contents limited to the main topics; modest ability to use the specific language of discipline and to independently apply the acquired knowledge (Score 18-20; Evaluation: sufficient) - The candidate does not have an acceptable knowledge of the main teaching contents; insufficient or no ability to use language specific to the discipline and to independently apply the acquired knowledge (Grade: - Assessment: insufficient, not approved)
TEACHING METHODS	On site teaching 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. Brawnwald

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 / Sublavian steal syndrome / Popliteal entrapment syndrome
- Peripheral arterial disease
- Varicose disease / Superficial thromboflebitis / 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	Aortice dissections/mesenteric ischemia
2	leriche syndrome/Subclavian Steal Syndrome/Popliteal artery entrapment syndrome
2	Peripheral arterial disease
2	Vein deiseases
2	Extremities Trauma/Thoracic outlet syndrome
2	Buerger disease/renovascular hypertension
2	Diabetic foot/Lymphatic diseases

MODULE
RESPIRATORY SYSTEM DISEASES

Prof. NICOLA SCICHILONE - Sede IPPOCRATE, - Sede IPPOCRATE

SUGGESTED BIBLIOGRAPHY

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

2) Oliaro A., Liozzi M. Malattie dell'apparato respiratorio: Pneumologia e chirurgia toracica. ISBN: 8855320548

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

EDUCATIONAL OBJECTIVES OF THE MODULE

KNOWLEDGE AND UNDERSTANDING:
1) correlating the structure and normal functionality of the respiratory system and interpreting the morpho-functional abnormalities found in various respiratory diseases. Know the main physiopathological mechanisms of functional and instrumental semeiotics, understanding the specific clinical methodology in the field of the main respiratory diseases.
2) Knowing how to use the technologies necessary for effective and safe use of diagnostic, therapeutic and prosthetic instruments and implants in the field of respiratory diseases.
3) Knowing how to describe the fundamental molecular, cellular, biochemical and physiological mechanisms relating to diseases of the respiratory system.
4) Knowing how to describe the origin and natural history of acute and chronic diseases of the respiratory system, having the essential knowledge relating to the pathology, pathophysiology, epidemiology, clinical presentation, diagnosis, prognosis, therapy and complications.
5) Know the principles of drug action with their indications in the field of respiratory diseases, including precision pharmacotherapy. Know the principles of interventional pulmonology. In addition, they will have to know the basic elements of respiratory rehabilitation and palliative care.
6) Knowing how to discuss, in relation to the diseases of the respiratory system, the main determinants of health and disease, such as lifestyle, genetic, demographic, environmental, socio-economic, psychological and cultural factors in the population as a whole, also with the aid of mathematical-informatic analytical tools.

ABILITY TO APPLY KNOWLEDGE AND UNDERSTANDING:
At the end of the course, students must be able to apply their knowledge to the understanding and resolution of health problems for diseases of the respiratory system. Clinical skills must be aimed at addressing the complexity of the health problems of the population, social groups, the individual patient and gender.
For these purposes, students must:
1) be able to correctly collect the remote and current medical history, complete with the patient's social context, and carry out a clinical examination, with reference to diseases of the respiratory system. They will have to apply the principles of clinical reasoning, perform basic diagnostic and technical procedures, analyse and interpret the results, in order to correctly define the nature of a problem or a clinical case, and correctly apply the appropriate diagnostic and therapeutic strategies. The anamnestic collection must be based above all on the knowledge coming from the evidence-based medicine to follow a rational approach to the patient and the disease.
2) be able to establish the most relevant diagnoses and therapies for the patient, recognise any condition that puts his life in imminent danger, and correctly and independently manage the most common respiratory emergencies.
3) be able to treat diseases of the respiratory system and take care of patients effectively and efficiently.
4) be able to take adequate prevention actions for respiratory diseases, with particular reference to vaccinations for respiratory patients and anti-tobacco smoking campaigns.
5) 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 diagnostic imaging of the respiratory system.
6) Be able to discuss the possible interactions between respiratory diseases and any patient comorbidities, with particular reference to the other modules of the integrated course: that is, cardiovascular diseases and vascular surgery.
Students will develop skills to apply the knowledge acquired during the course to clinical practice. MAKING JUDGEMENTS: 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

- All the skills listed above can be verified through discussion of clinical cases and interpretation of diagnostic tests as well as with proposals for a therapeutic algorithm. The student must be able to recognize a paradigmatic case of respiratory diseases addressed in the course program and propose an appropriate basic diagnostic and therapeutic path. Finally, the student may be asked to comment on scientific papers to demonstrate the skills acquired in the field of biomedical research.

SYLLABUS

Hrs	Frontal teaching
3	Anatomy and respiratory physiology. Main symptoms of respiratory diseases: cough, dyspnea, hemoptysis and chest pain. Main signs of respiratory disease: rales, wheezing, cyanosis, clubbing. Other non-specific symptoms and signs associated with respiratory disease.
3	Chronic obstructive pulmonary disease (COPD): 1) Chronic bronchitis; 2) Pulmonary emphysema. Tobacco smoke.
3	Bronchial asthma and respiratory allergies.

1	Inhalation therapy in asthma and COPD: aerosols and portable devices for inhaled drugs.
3	Lung cancer. Pathology and TNM staging. Basic knowledge of diagnosis, treatment, and palliative care.
1	Bronchiectasis: bronchiectasis and cystic fibrosis and non-cystic bronchiectasis.
3	Obstructive sleep apnea syndrome (OSAS). Sleep-related hypoventilation syndromes.
4	Infection pneumonia (bacterial and viral): CAP; hospital-acquired pneumonia (HAP and VAP); Aspiration pneumonia, Pneumonia in the immunocompromised. Lung abscess. Upper respiratory tract infections. Influenza, COVID-19 and respiratory 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.
5	The acute and chronic respiratory failure; Oxygen therapy n acute and chronic respiratory failure; The non-invasive mechanical ventilation (NIV) and CPAP. HFNO.
2	Diffuse pulmonary diseases: 1) Idiopathic pulmonary fibrosis; 2) Sarcoidosis. 3) Other rare and orphan interstitial lung diseases.
1	Pulmonary tuberculosis and Nontuberculous mycobacterial disease.
2	Pleural diseases: 1) pleural effusions; 2) pneumothorax; 3) Mesothelioma. Pneumomediastinum.
3	Pulmonary edema Pulmonary vascular diseases: Pulmonary Embolism; pulmonary arterial hypertension; Pulmonary vasculitis.
1	Invasive respiratory diagnostics and interventional pneumology
1	Respiratory emergency.
1	Basic knowledge of respiratory physiotherapy and motor rehabilitation in respiratory diseases.

MODULE
RESPIRATORY SYSTEM DISEASES

Prof. SALVATORE BATTAGLIA - Sede HYPATIA, - Sede HYPATIA

SUGGESTED BIBLIOGRAPHY

1) Rugarli, Medicina interna sistematica - 2 vol. Ottava edizione. ISBN: 9788821450952.
2) Oliaro A., Liozzi M. Malattie dell'apparato respiratorio: Pneumologia e chirurgia toracica. ISBN: 8855320548

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

EDUCATIONAL OBJECTIVES OF THE MODULE

KNOWLEDGE AND UNDERSTANDING:
1) correlating the structure and normal functionality of the respiratory system and interpreting the morpho-functional abnormalities found in various respiratory diseases. Know the main physiopathological mechanisms of functional and instrumental semeiotics, understanding the specific clinical methodology in the field of the main respiratory diseases.
2) Knowing how to use the technologies necessary for effective and safe use of diagnostic, therapeutic and prosthetic instruments and implants in the field of respiratory diseases.
3) Knowing how to describe the fundamental molecular, cellular, biochemical and physiological mechanisms relating to diseases of the respiratory system.
4) Knowing how to describe the origin and natural history of acute and chronic diseases of the respiratory system, having the essential knowledge relating to the pathology, pathophysiology, epidemiology, clinical presentation, diagnosis, prognosis, therapy and complications.
5) Know the principles of drug action with their indications in the field of respiratory diseases, including precision pharmacotherapy. Know the principles of interventional pulmonology. In addition, they will have to know the basic elements of respiratory rehabilitation and palliative care.
6) Knowing how to discuss, in relation to the diseases of the respiratory system, the main determinants of health and disease, such as lifestyle, genetic, demographic, environmental, socio-economic, psychological and cultural factors in the population as a whole, also with the aid of mathematical-informatic analytical tools.

ABILITY TO APPLY KNOWLEDGE AND UNDERSTANDING:
At the end of the course, students must be able to apply their knowledge to the understanding and resolution of health problems for diseases of the respiratory system. Clinical skills must be aimed at addressing the complexity of the health problems of the population, social groups, the individual patient and gender.
For these purposes, students must:
1) be able to correctly collect the remote and current medical history, complete with the patient's social context, and carry out a clinical examination, with reference to diseases of the respiratory system. They will have to apply the principles of clinical reasoning, perform basic diagnostic and technical procedures, analyse and interpret the results, in order to correctly define the nature of a problem or a clinical case, and correctly apply the appropriate diagnostic and therapeutic strategies. The anamnestic collection must be based above all on the knowledge coming from the evidence-based medicine to follow a rational approach to the patient and the disease.
2) be able to establish the most relevant diagnoses and therapies for the patient, recognise any condition that puts his life in imminent danger, and correctly and independently manage the most common respiratory emergencies.
3) be able to treat diseases of the respiratory system and take care of patients effectively and efficiently.
4) be able to take adequate prevention actions for respiratory diseases, with particular reference to vaccinations for respiratory patients and anti-tobacco smoking campaigns.
5) 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 diagnostic imaging of the respiratory system.
6) Be able to discuss the possible interactions between respiratory diseases and any patient comorbidities, with particular reference to the other modules of the integrated course: that is, cardiovascular diseases and vascular surgery.
Students will develop skills to apply the knowledge acquired during the course to clinical practice. MAKING JUDGEMENTS: students will be able to evaluate the medical implications associated with respiratory diseases.
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SYLLABUS

Hrs	Frontal teaching
3	Anatomy and respiratory physiology. Main symptoms of respiratory diseases: cough, dyspnea, hemoptysis and chest pain. Main signs of respiratory disease: rales, wheezing, cyanosis, clubbing. Other non-specific symptoms and signs associated with respiratory disease.
3	Chronic obstructive pulmonary disease (COPD): 1) Chronic bronchitis; 2) Pulmonary emphysema. Tobacco smoke.
3	Bronchial asthma and respiratory allergies.

1	Inhalation therapy in asthma and COPD: aerosols and portable devices for inhaled drugs.
3	Lung cancer. Pathology and TNM staging. Basic knowledge of diagnosis, treatment, and palliative care.
1	Bronchiectasis: bronchiectasis and cystic fibrosis and non-cystic bronchiectasis.
3	Obstructive sleep apnea syndrome (OSAS). Sleep-related hypoventilation syndromes.
4	Infection pneumonia (bacterial and viral): CAP; hospital-acquired pneumonia (HAP and VAP); Aspiration pneumonia, Pneumonia in the immunocompromised. Lung abscess. Upper respiratory tract infections. Influenza, COVID-19 and respiratory 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.
5	The acute and chronic respiratory failure; Oxygen therapy n acute and chronic respiratory failure; The non-invasive mechanical ventilation (NIV) and CPAP. HFNO.
2	Diffuse pulmonary diseases: 1) Idiopathic pulmonary fibrosis; 2) Sarcoidosis. 3) Other rare and orphan interstitial lung diseases.
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2	Pleural diseases: 1) pleural effusions; 2) pneumothorax; 3) Mesothelioma. Pneumomediastinum.
3	Pulmonary oedema Pulmonary vascular diseases: Pulmonary Embolism; pulmonary arterial hypertension; Pulmonary vasculitis.
1	Invasive respiratory diagnostics and interventional pneumology
1	Respiratory emergency.
1	Basic knowledge of respiratory physiotherapy and motor rehabilitation in respiratory diseases.

MODULE
CARDIOLOGY

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

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	Cardimyopathy
2	Chronic heart failure
2	Acute heart failure
2	Cardiaca arrhytmias
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
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
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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
3	Valvular heart disease
3	Cardimyopathy and myocarditis
2	Chronic heart failure
2	Acute heart failure
2	Cardiaca arrhytmias
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

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

2) Oliaro A., Liozzi M. Malattie dell'apparato respiratorio: Pneumologia e chirurgia toracica. ISBN: 8855320548

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

EDUCATIONAL OBJECTIVES OF THE MODULE

KNOWLEDGE AND UNDERSTANDING:
1) correlating the structure and normal functionality of the respiratory system and interpreting the morpho-functional abnormalities found in various respiratory diseases. Know the main physiopathological mechanisms of functional and instrumental semeiotics, understanding the specific clinical methodology in the field of the main respiratory diseases.
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4) Knowing how to describe the origin and natural history of acute and chronic diseases of the respiratory system, having the essential knowledge relating to the pathology, pathophysiology, epidemiology, clinical presentation, diagnosis, prognosis, therapy and complications.
5) Know the principles of drug action with their indications in the field of respiratory diseases, including precision pharmacotherapy. Know the principles of interventional pulmonology. In addition, they will have to know the basic elements of respiratory rehabilitation and palliative care.
6) Knowing how to discuss, in relation to the diseases of the respiratory system, the main determinants of health and disease, such as lifestyle, genetic, demographic, environmental, socio-economic, psychological and cultural factors in the population as a whole, also with the aid of mathematical-informatic analytical tools.

ABILITY TO APPLY KNOWLEDGE AND UNDERSTANDING:
At the end of the course, students must be able to apply their knowledge to the understanding and resolution of health problems for diseases of the respiratory system. Clinical skills must be aimed at addressing the complexity of the health problems of the population, social groups, the individual patient and gender.
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2) be able to establish the most relevant diagnoses and therapies for the patient, recognise any condition that puts his life in imminent danger, and correctly and independently manage the most common respiratory emergencies.
3) be able to treat diseases of the respiratory system and take care of patients effectively and efficiently.
4) be able to take adequate prevention actions for respiratory diseases, with particular reference to vaccinations for respiratory patients and anti-tobacco smoking campaigns.
5) 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 diagnostic imaging of the respiratory system.
6) Be able to discuss the possible interactions between respiratory diseases and any patient comorbidities, with particular reference to the other modules of the integrated course: that is, cardiovascular diseases and vascular surgery.
Students will develop skills to apply the knowledge acquired during the course to clinical practice. MAKING JUDGEMENTS: 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

- All the skills listed above can be verified through discussion of clinical cases and interpretation of diagnostic tests as well as with proposals for a therapeutic algorithm. The student must be able to recognize a paradigmatic case of respiratory diseases addressed in the course program and propose an appropriate basic diagnostic and therapeutic path. Finally, the student may be asked to comment on scientific papers to demonstrate the skills acquired in the field of biomedical research.

SYLLABUS

Hrs	Frontal teaching
3	Anatomy and respiratory physiology. Main symptoms of respiratory diseases: cough, dyspnea, hemoptysis and chest pain. Main signs of respiratory disease: rales, wheezing, cyanosis, clubbing. Other non-specific symptoms and signs associated with respiratory disease.
3	Chronic obstructive pulmonary disease (COPD): 1) Chronic bronchitis; 2) Pulmonary emphysema. Tobacco smoke.
3	Bronchial asthma and respiratory allergies.

1	Inhalation therapy in asthma and COPD: aerosols and portable devices for inhaled drugs.
3	Lung cancer. Pathology and TNM staging. Basic knowledge of diagnosis, treatment, and palliative care.
1	Bronchiectasis: bronchiectasis and cystic fibrosis and non-cystic bronchiectasis.
3	Obstructive sleep apnea syndrome (OSAS). Sleep-related hypoventilation syndromes.
4	Infection pneumonia (bacterial and viral): CAP; hospital-acquired pneumonia (HAP and VAP); Aspiration pneumonia, Pneumonia in the immunocompromised. Lung abscess. Upper respiratory tract infections. Influenza, COVID-19 and respiratory 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.
5	The acute and chronic respiratory failure; Oxygen therapy n acute and chronic respiratory failure; The non-invasive mechanical ventilation (NIV) and CPAP. HFNO.
2	Diffuse pulmonary diseases: 1) Idiopathic pulmonary fibrosis; 2) Sarcoidosis. 3) Other rare and orphan interstitial lung diseases.
1	pulmonary tuberculosis and Nontuberculous mycobacterial disease.
2	Pleural diseases: 1) pleural effusions; 2) pneumothorax; 3) Mesothelioma. Pneumomediastinum.
3	Pulmonary edema Pulmonary vascular diseases: Pulmonary Embolism; pulmonary arterial hypertension; Pulmonary vasculitis.
1	Invasive respiratory diagnostics and interventional pneumology
1	Respiratory emergency.
1	Basic knowledge of respiratory physiotherapy and motor rehabilitation in respiratory diseases.