BSc in Physiotherapy

INTEGRADED COURSE TITLE: VASCULAR REHABILITATION
NUMBER OF ECTS CREDITS: 6
SSD: MEDS-26/C
MODULE CONVENOR: PROF.SSA GIULIA COCOZZA
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MODULE: NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES
NUMBER OF ECTS CREDITS: 2
SSD: MEDS-26/C
PROFESSOR: GIULIA COCOZZA
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MODULE: NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES
NUMBER OF ECTS CREDITS: 2
SSD: MEDS-26/C
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MODULE: NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES
NUMBER OF ECTS CREDITS: 2
SSD: MEDS-26/C
PROFESSOR: FABIO ROMALDINI
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PREREQUISITES
Although there are no preparatory prerequisites, notions of physiology, pathophysiology and anatomy in the respiratory field are necessary. It is also necessary to have a good basic knowledge of human anatomy and physiology in particular of the cardiovascular system.

LEARNING OBJECTIVES
Knowledge of the principles, evaluation and treatment techniques in respiratory and cardiovascular rehabilitation are essential objectives; protocols, indications and contraindications of vascular rehabilitation, as well as knowledge and management of pain, edema and scars.
The student will also learn the main manual lymphatic drainage techniques.
These objectives will be achieved through lectures and practical exercises designed to facilitate learning and improve the ability to address and resolve the main questions in this field.

LEARNING OUTCOMES

Knowledge and understanding
At the end of this course the student will have to know:

- Recognize the main obstructive and restrictive respiratory diseases.

- Knowing how to use assessment techniques in the field of respiratory physiotherapy
- Knowing how to use the treatment techniques and technical tools of respiratory rehabilitation.
- Understand the indications for rehabilitation treatment by following the most accredited shared indications and guidelines, where present.
- Acquire skills in the physiotherapy assessment and treatment of acute and chronic respiratory dysfunctions originating from obstructive and / or restrictive pathologies
- Identify and administrate vascular risk factors
- Acquire skills in physiotherapic taking care of lympho- venous patients
- Understand the indications for rehabilitation treatment by following the most accredited shared indications and guidelines, where present
- Manage the main consequences after a surgical intervention: pain, oedema, scars
- Know the principles complex decongestive therapy
- Detailed and critical understanding of the pathophysiology of heart disease and its implications for exercise training.
- Plan, deliver and evaluate exercise prescription
- Evaluate critically the literature examining risk factors management
- Undertake a risk assessment
- Demonstrate an understanding of the methodology and interpretation of various tests
- Demonstrate a detailed and critical understanding of the psychosocial issues

Applying knowledge and understanding
At the end of the course the student will be able to use the knowledge acquired for the independent study of aspects relating to the specific field to which the student will dedicate himself as part of his professional activity.

Communication Skills
At the end of the course, the student should use specific scientific terminology appropriately.

Making Judgements
At the end of the course, the student should carry out general assessments relating to the topics covered.

Learning Skills
The student will have acquired skills and learning methods suitable for deepening and improving their knowledge and skills in the field of rehabilitation sciences, also through consultation of scientific literature.

COURSE SYLLABUS

Syllabus Prof. Massimo Mencarini
- Hints of history of Respiratory Rehabilitation.
- Functional evaluation of the patient with respiratory diseases (Physical examination of the chest, 6-minute Walking Test, Detection of dyspnoea, Oximetry and blood gas analysis, administration of questionnaires)
- Bronchial unblocking techniques (Chest Physical Therapy, ELTGOL, Autogenic Drainage, PEP-Mask, Active Cycle of Respiratory Techniques (ACBT))

- Interventions on the pump system and respiratory coordination (Relaxation, Stretching, Nose-blow coordination, Evidence-based practice)
- Oxygen therapy and mechanical ventilation

Syllabus Prof. Fabio Romaldini / Prof.ssa Giulia Cocozza

- The lymphatic system: anatomy, physiology, and pathophysiology of edema
- General principles, guidelines and scientific evidence of lymph-venous rehabilitation
- Introduction to decongestive therapy of edema (Manual drainage techniques, multicomponent bandaging, therapeutic exercise, abdominal-diaphragmatic breathing, adjuvant therapies)
- Scar treatment
- Definitive elastic garments and braces

Syllabus Prof.ssa Caterina Gruosso

- **Introduction to Cardiac Rehabilitation**
  Anatomy and physiology of the heart
  Common cardiac pathologies (myocardial infarction, heart failure, arrhythmias, etc.)
- **Basic principles of cardiologic rehabilitation**
  Evaluation of the Cardiology Patient
  Clinical and functional assessment of the cardiac patient
  Exercise tests and their interpretation
  Monitoring and assessment of vital parameters
- **Cardiology Rehabilitation Interventions**
  Therapeutic exercise for cardiac patients
  Breathing and relaxation techniques
  Customized rehabilitation programs
- **Multidisciplinary management**
  Collaboration with cardiologists, nurses, and other health professionals
  Patient and family education
  Secondary prevention strategies

COURSE STRUCTURE

The teaching is structured in 60 hours of frontal teaching, divided into 2, 4 or 5 hour lessons based on the academic calendar. Attendance is compulsory for at least 75% of the total hours of all the courses of the integrated course.

COURSE GRADE DETERMINATION

The verification of the students' preparation will take place through a written preparatory test for access to the oral one. During the written and oral exam, the examining commission will evaluate the student's ability to apply the knowledge and will ensure that the skills are adequate to support and solve problems in the field of respiratory and cardiological rehabilitation. The following will also be assessed: making judgements, communication skills and learning skills as indicated in the Dublin descriptors.
For the attribution of the final grade, the following criteria will be adopted:
Unsuitable: Poor or lacking knowledge and understanding of the topics; limited capacity for analysis and synthesis, frequent generalizations of the required contents; inability to use

technical language.
18-20: Just enough knowledge and understanding of topics, with obvious imperfections; just sufficient capacity for analysis, synthesis and independent judgement; poor ability to use technical language.
21-23: Sufficient knowledge and understanding of topics; sufficient capacity for analysis and synthesis with the ability to logically and coherently argue the required contents; sufficient ability to use technical language.
24-26: Fair knowledge and understanding of the topics; discrete capacity for analysis and synthesis with the ability to rigorously argue the required contents; discrete ability to use technical language.
27-29: Good knowledge and understanding of required content; good capacity for analysis and synthesis with the ability to rigorously argue the required contents; good ability to use technical language.
30-30L: Excellent level of knowledge and understanding of the requested contents with an excellent capacity for analysis and synthesis with the ability to argue the requested contents in a rigorous, innovative and original way; Excellent ability to use technical language.

READING MATERIALS

PROF. MASSIMO MENCARINI

- Clini E, Holland AE, Pitta F, Troosters T. Textbook of pulmonary rehabilitation. Springer International Publishing. 2018
- Lazzeri M. Esame clinico e valutazione in riabilitazione respiratoria. Elsevier. 2006

PROF.SSA CATERINA GRUOSSO

- Riabilitazione Cardiologica Alfonso Galati, Carlo Vigorito Edi. Ermes 2012
- BACPR Cardiovascular Prevention and Rehabilitation Jennifer Jones, Gill Funze
  John Wiley & Sons Inc 2020

PROF.SSA GIULIA COCOZZA / PROF. FABIO ROMALDINI

- The diagnosis and treatment of peripheral lymphedema: 2020 Consensus Document of the International Society of Lymphology
- Linee di indirizzo sul linfedema e altre patologie correlate al sistema linfatico, 2016
- GUIDA PRATICA ALLA LINFOLOGIA E PATOLOGIE CORRELATE, Dott. Sandro Michelini