

Degree Course in Physiotherapy

INTEGRATED COURSE: VASCULAR REHABILITATION

CFU: 6

SSD: MED/48

COORDINATOR: Leonardo Pellicciari E-MAIL: leonardo.pellicciari@unicamillus.org

MODULE: NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES

CFU: 2

SSD: MED/48

PROFESSOR : PROF. SIMONETTA ROSSI

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CFU: 2

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PROFESSOR: PROF. LEONARDO PELLICCIARI e-mail : leonardo.pellicciari@unicamillus.org

(Walk-in appointments will be offered on Mondays from 15:30a.m. - 18:30 a.m., ground floor, Students' Counseling Office)

MODULE: NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES

CFU: 2

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PROFESSOR: PROF. CATERINA GRUOSSO

e-mail : cate.gruosso@gmail.com

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

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Learning objective is the knowledge of the principles, evaluation and treatment techniques in respiratory rehabilitation. These objectives will be achieved through lectures aimed at improving the ability to address and resolve the main issues of this field.

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Learning objective is the knowledge of principles, protocols indications and contra-indications in cardiovascular rehabilitation. In addition, knowledge and management of pain, oedema and scars.

Introduction to Basic Life Support

These objectives will be achieved through lectures aimed at improving the ability to address and resolve the main issues of this area.

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Knowledge of the theoretical basis of the physiopathology in cardiovascular disease and related semeiotic system, knowledge of tools and indicators of cardiovascular function. Knowledge the basis of training in cardiac rehabilitation, learn assessment skills related to cardiovascular function tests and pragmatic rehabilitation treatment. Get to know multiprofessional paths and how to evaluate the results of the most indicative vital parameters for prognostic stratification.

These objectives will be achieved through lectures and problem-solving workshop.

LEARNING OUTCOMES

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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

Applying knowledge and understanding

At the end of the course, the student should know :

- Use the knowledge acquired for the deepening of aspects related to the specific field to which the student will devote himself in the context of the professional activity;

Communication skills

At the end of the course, the student should know:

- Use specific scientific terminology appropriately.

Making judgements

At the end of the course, the student should know:

- Carry out general assessments relating to the topics covered.

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Knowledge and understanding

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

- Acquire skills in physiotherapeutic taking care of cardiovascular 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 of Basic Life Support

Applying knowledge and understanding

At the end of the course, the student should know :

- Use the knowledge acquired for the deepening of aspects related to the specific field to which the student will devote himself in the context of the professional activity;

Communication skills

At the end of the course, the student should know:

- Use specific scientific terminology appropriately.

Making judgements

At the end of the course, the student should know:

- Carry out general assessments relating to the topics covered.

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Knowledge and understanding

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

- 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 should know :

- Use the knowledge acquired for the deepening of aspects related to the specific field to which the student will devote himself in the context of the professional activity;

Communication skills

At the end of the course, the student should know:

- Use specific scientific terminology appropriately.

Making judgements

At the end of the course, the student should know:

- Carry out general assessments relating to the topics covered.

COURSE SYLLABUS

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- Definition 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)

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- General principles in cardiovascular rehabilitation • Guide lines and scientific evidences in cardiovascular rehabilitation • Pain management • Management of lymphatic disorders • Scar management • Introduction to Basic Life Support

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INTRODUCTION • Cardiovascular system anatomy and physiology • Systolic / diastolic / pulse / mean arterial pressure • Cardiovascular response to exercise • DISEASES/DIAGNOSTIC TESTING AND INTERPRETATION • Different types of cardiomyopathy • Assessment and diagnosis of coronary artery disease • Heart failure and heart attack; systolic dysfunction, diastolic dysfunction, hypertension • Types of diabetes: benefits of exercise for patients with diabetes • Normal cardiac cycle as indicated on the ECG • Risk stratification • EXERCISE PRESCRIPTION IN PREVENTION AND REHANILITATION PROGRAMS • Phases of cardiac rehabilitation • Training principles • Exercise prescription principles • Inpatient rehabilitation guidelines • Outpatient rehabilitation guidelines • Core components and models: prevention and rehabilitation programs • Assessment of exercise capacity • Maximal test (Stress Test) • Borg perceived exertion scale • CR in Comorbidities • Psycosocial Rehab

COURSE STRUCTURE

The Course is structured in 20 hours of frontal teaching, divided into lessons of 2, 4 or 5 hours according to the academic calendar.

COURSE GRADE DETERMINATION INTEGRATED COURSE

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The verification of the preparation of the students will take place through an oral or written test. During the oral or written examination the Examining Commission will assess the ability of the Student to apply the knowledge and will ensure that the skills are adequate to support and solve problems in the field of respiratory rehabilitation. The following will also be assessed: making judgments, communication skills (communication skills) and learning skills (learning skills) as indicated in the Dublin descriptors.

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The verification of the preparation of the students will take place through a write test. The Examining Commission will assess the ability of the Student to apply the knowledge and will

ensure that the skills are adequate to support and solve problems of a cardiovascular nature. The following will also be assessed: making judgments, communication skills (communication skills) and learning skills (learning skills) as indicated in the Dublin descriptors.

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The verification of the preparation of the students will take place through a written test. The Examining Commission will assess the ability of the Student to apply the knowledge and will ensure that the skills are adequate to support the step of the clinical reasoning process protocol. The following will also be assessed: making judgments, communication

skills (communication skills) and learning skills (learning skills) as indicated in the Dublin descriptors.

READING MATERIALS

PROF. LEONARDO PELLICCIARI

- 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

Walk-in appointments will be offered on Mondays from 15:30a.m. - 18:30 a.m., ground floor, Students' Counseling Office.

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

Walk-in appointments will be offered on Saturday from 9:30a.m. - 12:30 a.m., ground floor, Students' Counseling Office.

PROF.SSA SIMONETTA ROSSI

- Springer, Cardic Rehabilitation Manual, 2nd edition, Niebauer J., 2017
- - Linee guida, buone pratiche ed evidenze scientifiche in medicina fisica e riabilitativa (I e II vol), Valter Santilli, Università degli studi di Roma La Sapienza, 2018
- - [ESC Handbook of Cardiovascular Rehabilitation: A practical clinical guide , Edited by Ana Abreu, Jean-Paul Schmid, and Massimo Piepoli, 2020](#)