

Degree Course in Physiotherapy

INTEGRATED TEACHING: REHABILITATION METHODOLOGY III

CFU: 8

SSD: MED/48

COORDINATOR: PROF. FRANCESCO FRONTANI EMAIL: francesco.frontani@unicamillus.org

MODULE: NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES

CFU: 2

SSD: MED/48

PROFESSOR: PROF. LUCILLA MAIMONE

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MODULE: NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES

CFU: 2

SSD: MED/48

PROFESSOR: PROF. FRANCESCO FRONTANI

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MODULE: NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES

CFU: 2

SSD: MED/48

PROFESSOR: PROF. ANNA BERARDI

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

MODULO: NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES

NUMERO DI CFU: 2

SSD: MED/48

DOCENTE: PROF. LEONARDO PELLICCIARI

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PREREQUISITES

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Maimone)

Although there are no preparatory prerequisites, notions of genetics, epigenetics and general pathology and the basic concepts of innate and acquired immune response and the basics of autoimmunity and inflammation are necessary. It is also necessary to have a good basic knowledge of human anatomy and physiology in particular of the musculoskeletal system.

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Frontani)

Even if no prerequisites are required, knowledge of the basic sciences is necessary (anatomy, neuroanatomy, physiology and neurophysiology). The theoretical issues, which lead to the physical therapy assessment, are fundamental.

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Berardi)

Although there are no preparatory prerequisites, notions of general pathology are necessary, as well as, good basic knowledge of human anatomy and physiology in particular of the musculoskeletal system.

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Pellicciari)

Although there are no preparatory prerequisites, notions of physiology, pathophysiology and anatomy in the neurologic field are necessary.

LEARNING OBJECTIVES

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Maimone)

Learning objective is the knowledge of common rheumatic diseases, of those rheumatic diseases that involve an emergency treatment, of socially relevant rheumatic diseases; recognition of symptoms and signs associated with rheumatic diseases; knowledge of the meaning red flags in rheumatology; to be able to evaluate the results of the most indicative laboratory parameters in the diagnostic iter of rheumatic diseases; knowledge of the correct use of imaging in rheumatology (X-rays, ultrasounds, magnetic resonance, computerized tomography, scintigraphy).

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

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Frontani)

The purpose of the course is to increase the students knowledge about the functional assessment and management of the main muscle-skeletal disorders. Basics on manual therapy and therapeutic exercise will be provided. Allowing the students to properly complete the physical therapy assessment is the last goal of the course, by widening the students' skills to manage and plan a rehabilitation program.

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Berardi)

The course aims to give in a simple and interactive way information relating to assistive devices for autonomy, for sitting posture in a wheelchair, electronic solutions for moving and home automation technologies. Within a process aimed at improving the quality of life of the person with disability, the emphasis is placed on the assistive device as an integral part of the rehabilitation process and tools for its evaluation are offered to the therapist.

The potential and limits of solutions aimed at motor disabilities and life situations are examined. First of all the tricks useful to all users are considered, then the tools are deepened by customizing the choices in complex cases.

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Pellicciari)

Knowledge of the assessment and treatment techniques of a patient with spinal cord injuries are essential objectives.

Furthermore, knowledge of the principles and techniques of treatment of proprioceptive neuromuscular facilities are also essential objectives.

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

LEARNING OUTCOMES

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Maimone)

knowledge and understanding

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

- The general mechanisms of innate and acquired immunity
- The main signs and symptoms and laboratory parameters in rheumatic diseases
- The imaging techniques in Rheumatology
- The classification of rheumatic diseases.
- Inflammatory arthritis
- Extra-articular rheumatisms
- Main connective tissue diseases
- Outline on pharmacological, rehabilitative and thermal therapeutic strategies in rheumatic diseases

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Frontani)

After completing this course, the student is able to:

- Understand and apply the main manual therapy techniques
- Understand and apply the therapeutic exercise basics
- Understand and apply the neurophysiological basics on pain
- Assess and manage the main muscle-skeletal disorders
- Plan a rehabilitation program at brief-middle-long term

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Berardi)

Conoscenza e capacità di comprensione knowledge and understanding

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

- To provide evaluation elements for person-assistive device-environment compatibility;
- To provide the basic knowledge and criteria to choose and customize posture systems, manual and electronic wheelchairs, powered mobility solutions, commands for environment control;
- To illustrate solutions aimed at complex disabilities;
- To provide tools for evaluating the patient and the assistive device;
- To provide the knowledge to improve autonomy and safety in living environments through home automation.

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Pellicciari)

knowledge and understanding

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

- Recognize the characteristics of a patient with spinal cord injuries
- Knowing how to use assessment techniques in a patient with spinal cord injury
- Knowing how to use treatment techniques in a patient with spinal cord injury
- Knowing the principles that underlie neuromuscular proprioceptive facilitation
- Knowing how to use the treatment techniques of proprioceptive neuromuscular facilitation

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

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Maimone)

INTRODUCTION • Immunity and autoimmunity • Signs and symptoms of rheumatic diseases, laboratory tests • Imaging in Rheumatology • Classification of Rheumatic diseases; ARTHRITIS • Osteoarthritis and low-back pain • Inflammatory arthritis • Microcrystal arthritis, infectious arthritis • Spondylarthritis including Ankylosing spondylitis, psoriatic arthritis and enteropathic spondylarthritis • Rheumatoid arthritis; EXTRA-ARTICULAR RHEUMATISMS • Osteoporosis • Fibromyalgia • Localized muscle-tendon diseases: enthesopathy, tenosynovitis • Neurological and neurovascular diseases: root compression neuropathies, algodystrophy; CONNECTIVE TISSUE DISEASES • Systemic lupus erythematosus, antiphospholipid syndrome, polymyositis dermatomyositis, systemic sclerosis, Sjogren syndrome, mixed connective tissue disease • Miscellaneous, Vasculitis and polymyalgia rheumatica; OUTLINE OF THERAPY: drugs, thermal and rehabilitation therapy in rheumatic diseases

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Frontani)

-) Plan a rehabilitation program, define the program goals (brief-medium-long term), define and select the appropriate outcomes and outcome measures, define the optimal therapeutic choice and the correct scheduling to reach the goal.
-) Assessment and treatment of lumbar pain
-) Assessment and treatment of cervical pain
-) Assessment and conservative treatment of knee and hip arthritis
-) Assessment and treatment of TMJ disease
-) Basics on pain neurophysiology
-) Basics of therapeutic exercise and how to effectively use it
-) Basics on the main manual therapy techniques

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Berardi)

- To provide evaluation elements for person-assistive device-environment compatibility;
- To provide the basic knowledge and criteria to choose and customize posture systems, manual and electronic wheelchairs, powered mobility solutions, commands for environment control;
- To illustrate solutions aimed at complex disabilities;
- To provide tools for evaluating the patient and the assistive device;
- To provide the knowledge to improve autonomy and safety in living environments through home automation.

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Pellicciari)

- Functional assessment in a patient with spinal cord injury
- Functional prognosis in a patient with spinal cord injury
- Principles of treatment in a patient with spinal cord injury
- Physiological principles underlying proprioceptive neuromuscular facilitation
- Treatment techniques according to proprioceptive neuromuscular facilitation

COURSE STRUCTURE

The Course is structured in 80 hours of frontal teaching, divided into lessons of 2, 4 or 5 hours according to the academic calendar. Attendance: at least 75% of the course.

COURSE GRADE DETERMINATION INTEGRATED COURSE

The verification of the preparation of the students will take place through an oral test and a practical test (Prof. Frontani). During the oral 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 of a rheumatological nature. 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

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Maimone)

- Rheumatology, Evidence-Based Practice for Physiotherapists and Occupational Therapists. Dziedzic & Hammond. Elsevier - Churchill Livingstone, 2010
- Unireuma - Reumatologia per studenti e medici di medicina generale. Valesini et al. Ed. Idelson Gnocchi, 2018

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NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Berardi)

- Valutare, consigliare, prescrivere gli AUSILI - Tecnologie al servizio delle persone con disabilità: guida per operatori della riabilitazione. Renzo Andrich. I QUADERNI della Fondazione Don Gnocchi

NURSING SCIENCES AND NEUROPSYCHIATRIC REHABILITATION TECHNIQUES (Pellicciari)

Didactic material provided by the professor.