

## DEGREE IN NURSING

### **INTEGRATED TEACHING:** CLINICAL AND DISABILITIES NURSING

NUMBER OF CFU: 5

SSD: MED/33, MED/26, MED/45, MED/34

RESPONSIBLE PROFESSOR: IPPOLITO NOTARNICOLA

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Office hours (by appointment): Thursday from 3 pm to 4 pm

MODULE: LOCOMOTIVE SYSTEM DISEASE

NUMBER OF CFU: 1

SSD: MED/33

PROFESSOR: GIORGIO BOVE

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Office hours (by appointment): Thursday from 3 pm to 4 pm

MODULE: NEUROLOGY

NUMBER OF CFU: 1

SSD: MED/26

PROFESSOR: ALESSANDRO STEFANI

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Office hours (by appointment): Thursday from 3 pm to 4 pm

MODULE: NURSING SCIENCE – NURSING IN REHABILITATION

NUMBER OF CFU: 2

SSD: MED/45

PROFESSOR: IPPOLITO NOTARNICOLA

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Office hours (by appointment): Thursday from 3 pm to 4 pm

MODULE: PHYSICAL AND REHABILITATION MEDICINE

NUMBER OF CFU: 1

SSD: MED/34

PROFESSOR: GIORGIO SCIVOLETTO

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Office hours (by appointment): Thursday from 3 pm to 4 pm

## **PREREQUISITES**

In order to understand the course, the student must have basic notions of the main theories of nursing and the phases of the nursing process. The student needs to have basic knowledge of neuroanatomy, neurophysiology, general pathology, pharmacology and internal medicine as obtained in the previous classes.

## **LEARNING OBJECTIVES**

Aim of the Teaching is to:

- make students acquire skills related to the preparation and implementation of educational and rehabilitation interventions.
- acquire knowledge (etiopathogenesis, clinical, notions of medical, surgical and rehabilitative treatment) of the main pathologies of orthopedic and rheumatological interest with particular regard to congenital or developmental diseases of which early diagnosis is important for the prevention of outcomes; morbid conditions of degenerative type very widespread in the population (arthrosis of the large joints, spondylarthrosis); acquire knowledge of the main rehabilitation methods. Acquire knowledge on imaging diagnosis applied to diseases of the musculoskeletal system.
- address students to a correct approach to the clinical and care managing of patients presenting with central and peripheral nervous system diseases as well as muscle diseases. Chronic and acute diseases with long term disabilities and consequences will be the focus of the course.
- provide students with knowledge of the rehabilitation field, as transversal and multidisciplinary science.

## **LEARNING OUTCOMES**

### **Knowledge and Understanding**

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

- How to develop personalized nursing care plans in the field of rehabilitation and geriatrics, ensuring performance related to Evidence Based Nursing (EBN).
- How to identify the most modern principles of nursing care for people with rehabilitation problems;
- how to identify in the existing literature the most recent knowledge produced in rehabilitative nursing and the related preventive interventions.
- relational skills for team and network work.
- and recognize the main pathologies in the orthopedic and trauma fields.

- How to perform the main semiological maneuvers for the diagnosis of diseases of the musculoskeletal system.
- the most useful instrumental examinations for diagnostic study in various clinical situations and post-traumatic ones with non.
- the various conservative and surgical therapeutic possibilities for the main pathologies.
- the principles of the most common surgical techniques (prosthetic surgery, arthroscopic surgery, treatment of the most frequent fractures).
- the principles of neurological examination including signs and symptoms related to disorders of consciousness, cognitive functions, cranial nerves, motor function, sensory function, neurovegetative function.
- Special techniques for neurological diagnosis: ecodoppler, Imaging (MRI,TAC,Nuclear medicine-PET/SPET).electroencephalography,electromiography,evoked potentials, lumbar puncture, neuropsychological testing.
- The principal neurological diseases (epidemiology,diagnosis,prognosis and therapeutics) :
- Cerebrovascular disorders, Trauma,Infectious and inflammatory disorders, Demyelinative disorders, Neurodegenerative disorders (Parkinsonisms and dementias),Toxic and metabolic disorders, Headaches, Intracranial hypertension and hypotension, epilepsies, brain and spinal tumors, mielopathies, peripheral neuropathies, myastenic syndromes and myopathies.
- The characteristics of rehabilitation as a transversal and multidisciplinary science.
- What is the rehabilitation project
- What is the multidisciplinary team
- What are the rehabilitation goals and programs in a rehabilitation project
- What are the main aspects of the rehabilitation of the patient affected by neurological diseases
- What are the main aspects of the rehabilitation of the patient affected by orthopaedic diseases
- What are the principles and characteristics of robotic and technological rehabilitation of the upper limb, gait and balance

### **Applying knowledge and understanding**

At the end of the teaching, the student will be able to:

- apply knowledge regarding the rehabilitation organization, tools and rehabilitation techniques that are effective for people with rehabilitation.
- apply relational skills for team and network work.
- use empathic listening and a customer-centered communication approach.
- use tools and relational strategies with different types of users. Be understood effectively.

- use the acquired knowledge for the autonomous deepening of aspects related to the specific field to which the student will devote himself within the professional activity.
- use the acquired knowledge for the autonomous personal deepening of aspects related to the specific field to which the student will develop his professional activity

### **Communication skills**

At the end of the teaching, the student will need to know:

- how to use specific scientific terminology in an appropriate manner.
- how to use the specific scientific terminology, understanding the relationship between neurological symptoms, diagnosis and therapeutics.

### **Making judgements**

At the end of the teaching, the student will need to know:

- how to carry out a general assessment of the topics covered

## **COURSE SYLLABUS**

### **Syllabus LOCOMOTIVE SYSTEM DISEASE**

- General concepts of orthopedics and traumatology.
- Anamnesis, clinical examination and instrumental examinations.
- Arthrosis.
- Congenital malformations. Alterations of growth.
- Endocrine and metabolic alterations.
- General anomalies of skeletal development.
- Main traumatic injuries of the musculoskeletal system: bruises, fractures, dislocations, sprains and wounds.
- Main pathologies and traumatic injuries of the lower limb, the upper limb of the rachis and the pelvis.

### **Syllabus NEUROLOGY**

- The clinical method and the clinical history in neurology; principal issues in neurological examination: consciousness, cognitive functions, motor functions, sensory functions, cranial nerves, vegetative functions. Diagnostic testing in neurology: Ecodoppler, MRI, CT scan, Nuclear medicine imaging, Electroencephalography, Evoked potentials, Electromiography, Neuropsychological tests, Lumbar puncture and cerebrospinal fluid examination.
- Emergencies in Neurology (i.e., faints, functional disorders).

- Iatrogenic impairments in Neurology.
- Neurological diseases: Cerebrovascular disorders, Trauma, Infective and inflammatory disorders (including SARS-2-related), Demyelinate disorders (Multiple sclerosis) ,Neurodegenerative disorders (Parkinsonism and dementias), Toxic and metabolic disorders, Headaches, Endocranial hypertension and hypotension, epilepsies, tumours, spinal disorders, peripheral neuropathies, myastenic syndromes and myopathies.

### **Syllabus NURSING SCIENCES – NURSING IN REHABILITATION**

- Main rules in the field of rehabilitation, the NHS and regional indications in the assistance to people with severe congenital and acquired disability
- Elaboration of care plans for patients undergoing rehabilitation with respect to the rehabilitation project defined with the team
- Nursing responsibility in defining the workload: use of interpretation of the main assessment and ADL scales
- Nursing process aimed at the psycho-physical recovery of the patient, the maintenance of residual capacities and / or the development of new skills
- Specific rehabilitation nursing interventions for people with: cardiac and respiratory diseases with a high level of disability, polytrauma and / or severe brain and spinal cord injuries, neurological bladder, congenital and / or chronic disability
- Notions on the management of pressure injuries in the rehabilitation and home environment

### **Syllabus PHYSICAL AND REHABILITATION MEDICINE**

- General concepts of Rehabilitation
- The motor program
- The instrumental program (physic means)
- The pharmacological program
- The integrative program
- Orhtesis and apparatus therapy
- Orthopedic rehabilitation
- Rheumatological rehabilitation
- Neurological rehabilitation
- Respiratory rehabilitation
- Cardiological rehabilitation

- urogynecological rehabilitation
- Rehabilitation in the developmental age
- Aesthetic physiatry

### **COURSE STRUCTURE**

The module of Nursing in Rehabilitation is structured in 28 hours of frontal lectures according to the timetable and workshops (individual and group activities).

The module of Locomotive System Diseases is structured in 14 hours of frontal teaching, divided into lessons of 2 or 4 hours according to the academic calendar. Frontal teaching includes theoretical lessons

The module of Neurology is structured in 14 hours of frontal teaching, divided in lessons of either 3 or 4 hours including theoretical lessons and clinical cases possibly by video presentation.

The module of Physical and Rehabilitation Medicine is structured in 14 hours of frontal teaching, divided into lessons of 2 or 3 hours according to the academic calendar. Frontal teaching includes theoretical lessons and additional seminars on the topics covered.

### **COURSE GRADE DETERMINATION**

The exam of the Teaching of CLINICAL AND DISABILITIES NURSING is comprised of an oral exam of the modules of NURSING IN REHABILITATION, LOCOMOTIVE SYSTEM DISEASES, NEUROLOGY, PHYSICAL AND REHABILITATION MEDICINE, whose mark is an integral part of the Teaching. The exam will cover the main topics of the teaching modules and will be considered passed if the student scores a final mark of 18/30.

The knowledge and ability to understand, the ability to apply knowledge and understanding, the autonomy of judgment and the communication skills of the student will weigh in the final score as follows 30%, 30%, 30% and 10%, respectively.

The evaluation criteria considered will be: acquired knowledge, independent judgment, communication skills and learning skills. The exams will be assessed according to the following criteria:

<b>&lt; 18</b> <b>insufficient</b>	The candidate possesses an inadequate knowledge of the topic, makes significant errors in applying theoretical concepts, and shows weak presentation skills.
<b>18 - 20</b>	The candidate possesses a barely adequate and only superficial knowledge of topic, limited presentation skills, and only an inconsistent ability to apply theoretical concepts.

- 21 – 23** The candidate possesses an adequate, but not in-depth, knowledge of the topic, a partial ability to apply theoretical concepts, and acceptable presentation skills.
- 24 – 26** The candidate possesses a fair knowledge of the topic, a reasonable ability to apply theoretical concepts correctly and present ideas clearly.
- 27 - 29** The candidate possesses an in-depth knowledge of the topic, a sound ability to apply theoretical concepts, good analytical skills, clear argumentative clarity and an ability to synthesize
- 30 - 30L** The candidate possesses an in-depth knowledge of the topic, an outstanding ability to apply theoretical concepts, a high level of argumentative clarity, as well as excellent analytical skills, and a well-developed ability to synthesize and establish interdisciplinary connections.

## OPTIONAL ACTIVITIES

Videos and slides related to rehabilitation. The topics of the support activities are not subject to examination. In addition to teaching activities, students will be given the opportunity to participate in Seminars, Research Internships, Department Internships and Monographic Courses. The subjects of the activities are not exam subjects.

## READING MATERIALS

Reading materials for LOCOMOTIVE SYSTEM DISEASE

- Mancini, A., Morlacchi, C. (2018). Clinica ortopedica: manuale-atlante. Piccin
- Teaching materials provided by the lecturer

Reading materials for NEUROLOGY

- American Nurses Association, American Association of Neuroscience Nursing. (2019). Neuroscience Nursing. Scope and Standards of Practice. 3 edizione.
- Padovani, A., Borroni, B., Cotelli, M.S. (2017). Neurologia per le professioni sanitarie. Piccin.
- Teaching materials provided by the lecturer

Reading materials for NURSING SCIENCES – NURSING IN REHABILITATION

- American Nurses Association, American Association of Neuroscience Nursing. (2019). Neuroscience Nursing. Scope and Standards of Practice. 3 edizione.
- Federazione Nazionale degli Ordini delle Professioni Infermieristiche (2019). Codice Deontologico dell'infermiere. Disponibile all'indirizzo: [https://www.fnopi.it/archivio\\_news/attualita/2688/codice%20deontologico\\_2019.pdf](https://www.fnopi.it/archivio_news/attualita/2688/codice%20deontologico_2019.pdf)

- Teaching materials provided by the lecturer

Reading materials for PHYSICAL AND REHABILITATION MEDICINE

- Frontera, W. R., Silver, J. K., & Rizzo, T. D. (2018). Essentials of physical medicine and rehabilitation e-book. Elsevier Health Sciences
- Teaching materials provided by the lecturer