

Degree course in Physiotherapy

Teaching Nursing and neuropsychiatric and rehabilitative techniques

Integrated Course: Rehabilitation Methodology 2

SSD MED / 48

Number of CFUs: 8

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PREREQUISITES

Although no propedeuticities are present, knowledge of basic sciences (neuroanatomy and anatomy, physiology and neurophysiology), medical sciences related to the second year's contents, and the basic method of rehabilitation are required.

LEARNING OBJECTIVES

This course aims at enhancing previous background on the functional evaluation of motor and neurological performance and providing the student additional expertise related to patients with neurological and motor diseases. A specific assessment of signs and symptoms together with analysis of balance, gait, posture, reaching and grasping will be provided in order to identify the treatment goals and design a rehabilitation plan in various fields.

LEARNING OUTCOMES

After completing this course, the student is able:

- to understand basic principles of motor learning
- to understand basic principles of neuroplasticity
- to translate residual learning capacity into clinical practice
- to evaluate functional abilities (balance, gait, posture, reaching and grasping)
- to design a rehabilitation approach taking into account: the diversity of symptoms, the disease evolution, the impact on global functioning, the existing scientific evidence

COURSE SYLLABUS

Prof. Elisa Pelosin 2 cfu

- Hierarchical organization of movement
- Motor learning principles
- Principles of neuroplasticity
- Definition and aim of neurorehabilitation
- Evaluation of (main) neurological symptoms
- Functional and clinical evaluation of motor functions
 - Balance
 - Gait
 - Posture
 - Reaching and grasping
- Neuro-rehabilitation treatment goal
- Planning rehabilitation treatment based on neurological damage

Prof. Giovanni Galeoto – 2 cfu

Principles of treatment of pathologies of the musculoskeletal system and orthopedic semeiotics.

Planning of a rehabilitation program: orthopedic patient handling, treatment techniques, orthopedic aids and traumatology

Walking: principles of re-education on the journey

LOWER LIMB

- Rehabilitation after hip arthroplasty, osteosynthesis in acetabular fractures, osteosynthesis in fractures of the proximal epiphysis of the femur, diaphyseal and distal femoral epiphysis; osteosynthesis in tibial leg and pilon fractures, osteosynthesis in tibial and patella plate fractures, cruciate ligament reconstruction, meniscal tear surgery, knee and ankle joint replacement surgery, osteosynthesis in malleolar fractures.

- Rehabilitation in Achilles tendon lesions, in ankle sprain. in patellofemoral syndrome

UPPER LIMB

-Rehabilitation of the shoulder: impingement, instability, rotator cuff injuries, adhesive capsulitis, shoulder prosthesis, clavicle fractures.

- Rehabilitation of fractures of the humerus, arthroplasty and elbow fractures, wrist and hand fractures.

Prof. Annamaria Servadio 2 CFU

Congenital hip diseases:

Congenital hip dislocation;

The Triple Basin Osteotomy in the outcomes of eating disorders. Surgical and rehabilitative problems.

Functional evaluation and therapeutic approach.

Osteochondrosis:

epiphysis;

M.di Perthes;

Osgood-Schlatter disease;

Evaluation and therapeutic approach.

Congenital Foot Diseases:

The twisted foot. Evaluation and therapeutic approach

Scoliosis. Clinical-functional evaluation and rehabilitation treatment

The parameters of the lower limbs: Knee launch; Knee valgus; The flat-valgus foot;

Evaluation and therapeutic approach

Prof. Marco Tofani 2 CFU

Cognitive and motor development of the child

INFANT CEREBRAL PARALYSIS:

-definition

-aetiology

- classifications (Hagberg, Bobath)

- psychomotor alarm signs in the first year of life

- associated disorders

OBSERVATION IN THE CHILD WITH P.C.I. (evaluation form):

- analysis of interactive processes;
- adaptive capacity analysis;
- analysis of postural adaptations;
- function analysis;
- treatment objectives.

CLINICAL FORMS:

- The child with tetraparesis:
 1. Severe alteration of muscular stiffness à characteristics of the motor picture, natural evolution, objectives and treatment.
 2. Moderate alteration of muscular stiffness à characteristics of the motor picture, natural evolution, objectives and treatment.
- The child with diplegia istiche characteristics of the motor picture, natural evolution, goals and treatment.
- The child with hemiparesis istiche characteristics of the motor picture, natural evolution, goals and treatment.
- The child with atetosis istiche characteristics of the motor picture, natural evolution, goals and treatment.
- The child with ataxia io characteristics of the motor picture, natural evolution, goals and treatment.
- The premature baby has general characteristics, rehabilitation problems.
- Notes on the use of the various aids in the P.C.I.

COURSE STRUCTURE

60 ore di didattica frontale Frequenza: Obbligatoria per il 75% delle ore del corso integrato

60 hours of frontal lessons Attendance: at least 75% of the course integrato

COURSE GRADE DETERMINATION

Student's learning will be examined by integrated course by means of a structured written exam consisting of 36 questions, 34 of which will contain a multiple-choice-like structure and 2 will be structured as open-ended questions.

Overall, the marks will be subdivided into two parts (40% for multiple-choice questions; 60% for open-ended questions). The max score for multiple-choice questions will be 12/30 and the max score for each open-ended question will be 9/30 (12 + 9 + 9 = 30/30).

The student can complete the written test with the oral test

ATTIVITÀ DI SUPPORTO/OPTIONAL ACTIVITIES

A group-based power-point exercises will be proposed with the aim to improve students' ability in presenting scientific papers.

READING MATERIALS

Motor Control : Translating Research into Clinical Practice

By Anne Shumway-Cook , By (author) Marjorie H. Woollacott

Fifth, North American Edition

Wolters Kluwer Ed