UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Lower Quarter Impairments

2526-3-I0201D144-I0201D227M

Aims

Describe the kinesiology and muscular activities of the Lower Quadrant (lumbar-hip-knee and foot), paying particular attention to synergistic actions and the role of force couples
Identify the characteristics of lumbar-hip-knee and foot movement dysfunction syndromes
Conduct an assessment for signs, symptoms and contributing factors and establish a primary and, if necessary, secondary diagnosis.
Create a specific treatment program that modifies the activities that contribute to the establishment of movement dysfunction syndrome.
Create a specific exercise program that modifies dysfunctional contributing factors

Contents

This course presents the concepts and principles regarding the theory on the balance of the movement system and its relationships with Movement Dysfunction Syndromes, which are syndromes of mechanical musculoskeletal pain of the Lower Quadrant (lumbar-hip-knee and foot). At the end of this path the student will be able to discuss the concept of directional susceptibility of a joint to a movement, and tissue adaptations associated with repeated movements and maintained postures. The course will teach you to identify dysfunctions of alignment, muscle lengths and movement patterns and their relationships with musculoskeletal pain syndromes.
The signs and symptoms of movement dysfunction syndromes will also be described. Participants will be taught the test used to identify movement system dysfunction, which includes: 1) movement tests, 2) alignment assessments, 3) muscle length tests, 4) muscle strength tests, and 5) analysis of movement patterns during specific joint movements and functional activities. Much emphasis will be placed on the significance of developing a precise therapeutic exercise program and correcting postural defects and movements associated with functional activities.

Detailed program

Concepts and principles of dysfunctions of the movement system of the lumbar, hip, knee and foot

Posture and movement analysis Examples of clinical cases Dysfunction of the muscular, biomechanical and motor control components,
Lumbar movement dysfunction syndromes. extension with rotation.extension, flexion with rotation, flexion
Central role of the abdominals: evaluation and therapeutic proposals
Hip movement dysfunction syndromes: anterior-posterior glide-hypermobility-hypomobility-medial rotation with adduction
Knee movement dysfunction syndromes: tibio-femoral rotation, hyperextension-extension, flexion, hypomobility
Foot dysfunction syndromes: pronation-supination-hypomobility
Posture and movement analysis
Examples of clinical cases Dysfunction of the muscular component, biomechanics and motor control - discussion
Physical examination: observation of posture, evaluation of alignment, tests in orthostatism, in supine position, in prone position, in lateral decubitus, in quadrupedal position, in sitting position.

Work in small groups with tutors: complete evaluation, clinical reasoning, formulation of the diagnosis of dysfunction of the upper quadrant movement system (for each district); treatment plan of the subject evaluated in the group. Discussion of the cases presented by the various groups.

Verification of movement system dysfunction diagnosis and treatment plan.

Prerequisites

Access granted to 3rd year students who have passed all the 2nd year exams

Teaching form

Teaching (DE) 18 hours
Interactive teaching (TEL-DI) 4 hours (tasks, group work, formative assessments, etc.).
Interactive teaching (DI) 2 hours with the nature of questionnaires or ongoing tests.

Textbook and teaching resource

- Valutazione e trattamento delle Sindromi da Disfunzioni del Movimento Autore: Shirley Sahrmann Edizione italiana a cura di: G. Barindelli Editore: UTET Scienze Mediche 2005, 480 pagine
- Movement System Impairment Syndromes of the Extremities, Cervical and Thoracic Spines - Shirley Sahrmann Elsevier Health Sciences, Nov 19, 2010
- Slide in Power point

Semester

1st semester

Assessment method

Multiple choice test comprising 5 questions with only one correct answer and Open questions
Practical exam: clinical examination peer to peer
The correctness and consistency of the answers with respect to the question asked will be evaluated
Ongoing practical evaluations are planned

Office hours

By appointment

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING