



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Valutazione delle Disfunzioni del Sistema di Movimento

2425-2-I0201D137-I0201D209M

---

#### Aims

\*\*Learn the basics of clinical reasoning according to the Pathokinesiological and Kinesiopathological model  
Know the Bio-Psycho-Social Model and the role of the Movement System and the gold standards  
Learn to carry out a correct medical history - the subjective examination and the objective examination  
Know how to manage the patient based on the staging  
Be able to carry out a complete evaluation of the patient (alignment - movement tests - joint and strength tests)  
Know and be able to identify the main structural alterations affecting the upper and lower quadrant

#### Contents

The course aims to guide the student through the use of clinical reasoning to systematize all the information relating to the care of the patient with musculoskeletal problems

Clinical reasoning, however, depends on the reference system in which it moves and will be very different if the pathokinesiological or kinesiopathological model is used, as the former seeks the origin of the symptoms (symptomatic tissue) while the latter the cause (movement that causes the symptom).

In the pathokinesiological model, therefore, the anamnestic collection, clinical tests and functional tests will be aimed at identifying the tissue or structure from which the pain originates; the same treatment will be aimed at direct care of the fabric.

In the Kinesiological one, attention will be paid to identifying the dysfunctional movement that causes irritation of the offending tissue, the correction of which will alleviate or cancel the symptoms; it is clear that the taking charge process will be totally different.

The lessons for which will follow these two parallel lines of models, showing the critical issues and peculiar aspects based on the clinical picture in which the patient is taken care of.

The lower and upper quadrant will be examined, showing the functional alignments and movements and their dysfunctions

Much of the time will be spent practicing assessment tests

## Detailed program

What is meant by Clinical Reasoning

Pain mechanisms

Muller's theory of stress on tissues

Clinical reasoning according to the Pathokinesiological model: Central nucleus. Way of thinking, Examination and requirements, treatment and evaluation

exercise with clinical case in groups

Clinical reasoning according to the Kinesiopathological model

Symptoms vs cause

Basis of symptoms: Movement system balances - Instant center of rotation

Changes in the components of the system: Muscles (strength-length-rigidity), Articulation (flexibility-degeneration), Skeleton (bone structure), Neural (Recruitment), Biomechanics and dynamic influence

importance of alignment, maintained postures and repeated movements on the tissues: examples of clinical cases

Stages: acute phase 1-sub-acute phase 2-phase 3 in remission

Lower quadrant physical exam: alignment, supine, side, prone, quadrupedal, seated tests, walking demonstration and practical exercises.

Structural alterations of the lower limb - hip: specific tests

Bias in heterometry measurements with tractional and x-ray methods

Structural alterations of the lower limb - knee: specific tests

Structural alterations of the lower limb - foot: specific tests

Problems related to the use of foot orthoses

Role of the abdominals

Specific tests and influence on the rib cage

respiratory mechanics in relation to the abdominals

relationships between thoracic-cervical and shoulder girdle

Upper quadrant: alignment and physiological movements of the scapula and humerus

Clinical cases: dysfunctional movements

Upper quadrant physical exam: alignment, supine, side, prone, quadrupedal, seated test, walking-demonstration and practical exercises-exercise with clinical case in groups

## Prerequisites

## 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 Shirley Sahrman** ISBN 880207080-6 Pagine 480 Copertina Cartonata Editore: UTET Anno di edizione: 2005 **Skeletal Muscle Structure, Function, and Plasticity Richard L Lieber Lippincott Williams & Wilkins (Sep 2009) Edition: Third ISBN-10: 0-7817-7593-0 ISBN-13: 978-0-7817-7593-9 Pub Date: September 2009 Pages: 336**

## **Semester**

2nd semester

## **Assessment method**

Written exam with multiple questions (n° 40), 5 options of which only one is correct

Open question: clinical case

practical exam in presence on a student lasting 10 minutes

The correctness and consistency of the answers will be evaluated with respect to the requested question

## **Office hours**

By appointment

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING

---