UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# COURSE SYLLABUS

# Differential Diagnosis in Musculoskeletal Conditions

**2021-3-I0201D116-I0201D045M**

## Aims

basis in order to perform a diagnosis of the movement system impairment trough the collection of signs, symptoms and muscular test results

## Contents

## Detailed program

- Kinesiological model: clinical relevance Pathokinesiological model: clinical relevance Kinesiopathological model: clinical relevance. Muscular strength: anthrophy, hyperthrophy, reduction of strength because of strain. Muscular length:weakness for hyper-elongation, strain length increase, the lengthened muscle the shortened muscle. Modification of length in the synergic muscles. Rigidity of the muscles and soft tissues. Compensatory relative stiffness Dysfunction of the base element: structural variations of the joint alignment Dysfunction of the base element: nervous system Altered recruitment schemes Non corrected dominance of recruitment schemes of synergic muscles. Recruitment and relative stiffness Eccentric contraction schemes Dysfunction of biomechanics elements Effects of gravity force Dynamic: relations between movements and forces Dysfunctions and kinematic of joints. Multiple dysfunction of movement components. Support element dysfunction Gait dysfunctions: clinical implications Dysfunctions of the upper ad lower quarter Dysfunctions, structural and muscular implications.

## Prerequisites

## Teaching form

during the Covid-19 emergency period, lessons will take place in synchronous videoconference

## 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

## Semester

2st semester

## Assessment method

Written exam with multiple questions

## Office hours

By appointment