UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Assessment and Treatment of The Movement System

2021-3-I0201D116

Aims

modification mechanism of the motor system components , factors of strength improvement, assess the path of least resistance and the relative stiffness, assessment of the movement impairments, and their related symptoms and contributing factors.

General principles on the functional assessment and clinical assessment.

Contents

Detailed program

- review of the pertinent muscular biology

- muscular hypertrophy

- neural and muscular factors in alignment an d strength

- normal muscles

- atrophy of the muscle

- mechanism of the modification of the components

- muscular strain - length associated changes

- sarcomere engagement - adding more sarcomere in series

– active movement

- alignment correction

- assessment of muscular performance

- stretching programs

- muscular adaptations

- dissociated changes in synergic muscles

- alignment of the lower limbs in the sitting posture

- dissociated changes in muscle length

- muscular stiffness

- relative stiffness/flexibility

- path of least resistance

Prerequisites

Teaching form

Lectures and lab

Textbook and teaching resource

- Valutazione e trattamento delle Sindromi da Disfunzioni del Movimento Shirley Sahrmann 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

1nd semester

Assessment method

In the Covid-19 emergency period, written exams will be carried out on the ESAMI-ONLINE platform, with a proctoring system (RESPONDUS). Multiple choice test comprising 5 questions with only one correct answer and Open questions

Oral test (optional, on evaluation of the teacher). During the Covid-19 emergency period, oral exams will only be online. They will be carried out using the WebEx platform and on the e-learning page of the course there will be a public link for access to the examination of possible virtual spectators.

Practical exam

Office hours

By appointment