

BIOMECHANICAL ASSESSMENT METHODOLOGIES TO IMPROVE THE REHABILITATION PROCESS



Modality: e-learning

Duration: 40 hours

Accreditation: yes

Tutorization: available

Dates: 18/10/2018 – 18/12/2018

Description and objectives

Description:

This course is aimed at presenting rehabilitators how biomechanics can provide new and complementary ways to manage physical rehabilitation in clinical contexts.

Objectives:

- To introduce students into the most useful biomechanical assessment methodologies in the context of a rehabilitation service.
- To review clinical cases where biomechanics is applied in the treatment of the most common impairments of the locomotor system.
- To learn the last technological advances used in the biomechanical valuation of locomotor disorders.
- To provide students with the ability of understanding the results from any biomechanical analysis.
- To learn the foundations of the biomechanical technology and its application as a tool to improve the rehabilitation process.

This course has been carried out under the support of the project Biomechanics4Rehab, which has been funded by the European Union through the Leonardo DaVinci Program (2013-1-TR1-LE005-47549).

Addressed

- To professionals of physical medicine and rehabilitation.

Content

Introduction to biomechanical evaluation in clinical contexts:

- Introduction
- Clinical utility of Biomechanical Evaluation in the treatment of musculoskeletal disorders
 - Gait
 - Balance
 - Handling
 - Spine

Clinical cases:

- Seven different pathologies will be introduced
 - Gait analysis of a lower limb amputee (prosthesis adaptation)
 - Carpal tunnel syndrome evaluation
 - Cervical Whiplash
 - Lumbar pain
 - Hallux Valgus
 - Stroke
 - Parkinson

Teachers

The course is taught by members of Biomechanical Assessment and Training of the IBV. Among the professionals that are integrated are university doctors, physicians specialized in Physical Medicine and Rehabilitation and Legal and Forensic Medicine, physiotherapists, podiatrists, engineers, pedagogues and graduates in Information Sciences, with extensive teaching experience and in the application of methodologies of biomechanical assessment.

Technical requirements

Software and hardware required: Computer with audio and internet connection, web browser and email.

Previous knowledge required: Basic management of a web browser.

Certificate

The student who has passed the assessment will be awarded by a certificate of completion, issued by the Instituto de Biomecánica (IBV).