



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Management of Patients With Acute Stroke, Grasp and Reach Training

2324-2-I0201D078

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#### Aims

Develop neurophysiological and biomechanical knowledge to identify intervention priorities for early rehabilitation of the entire upper limb.

Experiment with manual skills to facilitate muscle activations necessary for the execution of the main phases of orientation of the upper limb to grip the object.

#### Contents

Theoretical and practical course on the knowledge of the physiological prerequisites of manual grasping and its possible post-ictal compromise and to experiment with possible physiotherapeutic proposals identified by the clinical practice of the Bobath approach.

#### Detailed program

Introduction

Upper limb in the motor scheme

Scapular stability and postural setting

Biomechanics of reaching

practical exercise aimed at facilitating for

Reduce the tension of the flexors

Mobilize bone structures

Introduce a selective pronation from supination

Strengthen the intrinsic muscles to support bone structures

Start exploring the digitization process

## **Prerequisites**

Upper limb kinesiology, clinical evaluation of hand skills

## **Teaching form**

introductory lesson followed by presentation of types of treatment and exercise on some simulated maneuvers in small groups.

## **Textbook and teaching resource**

-W.B.Kibler: Clinical implications of scapular dyskinesis in shoulder injury: the 2013 consensus statement from the 'scapular summit' – group.bmj.com 2014

-C.Griffin: Management of the hemiplegic shoulder complex – Top Stroke Rehabil. 2014

- M.A. Finley: Effect of sitting posture on 3-dimensional scapular kinematics measured by skin-mounted electromagnetic tracking sensors – Phys.Med.Rehabil. 2003

-E.R.Kandel: Principles of neural science – 5<sup>o</sup> Edition – McGraw-Hill Companies 2013

videos on web

## **Semester**

second semester

## **Assessment method**

Mandatory attendance.

Training supervision of tutors - teachers during practical experiences.

## **Office hours**

by appointment

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING

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