



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Robotica ed Informatica in Riabilitazione

2223-2-I0201D136-I0201D132M

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#### Aims

- know and understand the use of new available technologies for rehabilitation

#### Contents

##### Detailed program

- robotics in physical therapy: principles and rationale
- systems for data collection and data analysis
- robotic devices (upper and lower limb)
- virtual reality
- efficacy and limitation of the robotic rehabilitation

#### Prerequisites

#### Teaching form

Lessons in attendance, subject to any ministerial changes following the COVID pandemic situation

## **Textbook and teaching resource**

**Swinnen E, Beckwée D, Meeusen R, Baeyens JP, Kerckhofs E. Does robot-assisted gait rehabilitation improve balance in stroke patients? A systematic review. Top Stroke Rehabil. 2014 Mar-Apr;21(2):87-100**

Krebs HI, Hogan N. Robotic therapy: the tipping point. Am J Phys Med Rehabil. 2012 Nov;91(11 Suppl 3):S290-7

Krebs HI. Robotic technology and physical medicine and rehabilitation. Eur J Phys Rehabil Med. 2012 Jun;48(2):319-2

Lewis GN, Rosie JA. Virtual reality games for movement rehabilitation in neurological conditions: how do we meet the needs and expectations of the users? Disability and Rehabil.

2012 ;34(22):1880-6.

## **Semester**

1st semester

## **Assessment method**

Described in the subject's syllabus

## **Office hours**

By appointment

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING

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