



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Prosthesis and Rehabilitation

2122-3-H4102D055-H4102D061M

---

#### Aims

To assist professionals in their routine related to engineering activities related to prosthesis. In particular the following activities will be shown: 3D scanning of prosthesis components or of anatomical districts, design with commercial and ad-hoc 3D software tools and manufacturing by means of additive technologies.

#### Contents

The course aims at providing the students with the practical expertise on engineering-based activities relevant for prosthesis design and manufacturing.

#### Detailed program

3D scanning of prosthesis components, such as for knee or shoulder replacement. 3D scanning of anatomical districts to gather patients shape and dimensions. Prosthesis design (internal and external) with commercial and ad-hoc 3D software tools. Manufacturing process by means of additive technologies starting from 3D captured data.

#### Prerequisites

Basic knowledge of anatomy and prosthetics

#### Teaching form

Examples of use of devices and software solutions for motion analysis. During the COVID-19 restrictions the lessons will be recorded and available online, with some live events that will be planned and communicated via email or on e-learning.

## **Textbook and teaching resource**

Course Handout (slides)

## **Semester**

first semester

## **Assessment method**

## **Office hours**

---