UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Prosthesis and Rehabilitation

2021-3-H4102D055-H4102D061M

Aims

To assist profesionals in their routine related to enginnering 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