UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Modeling and Simulation

2021-4-H4102D024-H4102D088M

Aims

To provide the concepts necessary for understanding cardiovascular fluid mechanics

Contents

The lessons will cover the most important aspects related to cardiovascular fluid mechanics. Students will acquire the basic knowledge regarding blood flow in arteries, cardiac function and the role of physical parameters in cardiovascular function.

Detailed program

1) Basic concepts of blood flow in arteries.

2) Basic concepts of cardiac function

3) Properties of blood and vessels.

4) Laws of conservation of mass, momentum and energy balance

Prerequisites

Basic knowledge of fundamentals of biology, morphology and physiology of the cardiovascular system.

Teaching form

Teaching of basic concepts of cardiovascular fluid mechanics, application of fluid mechanics theory to the cardiovascular field.

Textbook and teaching resource

To be defined

Semester

First Semester

Assessment method

Evaluation by written test of the acquisition of basic concepts of fluid mechanics applied to the cardiovascular field.

Office hours

Contact by e-mail