



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Physics

2425-1-I0202D134-I0202D140M

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#### Aims

KINEMATICS: The student must be able to: - Describe the physical laws of linear and parabolic motion. - Describe the laws of statics of rigid bodies - Describe the law of conservation of mechanical energy.

#### Contents

The aim is to teach the student to accurately describe the articular motion of the human body using correct terminology. The course has the objective to develop in the student the knowledge of human motion.

#### Detailed program

- Vectors and scalars
- Kinematics of a particle
- Parabolic motion
- Forces and dynamics
- Weight and elastic Forces
- Work
- Kinetic energy
- Potential energy and conservation of mechanical energy
- Statics of rigid bodies with application to the human body
- Levers

**Prerequisites**

Basic knowledge of mathematics

**Teaching form**

In person

**Textbook and teaching resource**

D. Scannicchio, Esercizi e problemi di Fisica, Edizioni Unicopli - D. Scannicchio, Fisica Biomedica, EDISES

**Semester**

First semester

**Assessment method**

Written examination with numerical open questions.

**Office hours**

By appointment

**Sustainable Development Goals**

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