UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# COURSE SYLLABUS

# Biology

**2223-1-I0201D127-I0201D183M**

## Aims

The course aims at developing the students' understanding of the basic mechanisms that regulate molecular organization, cellular and subcellular morphology.

## Contents

The cell.

Organization of cellular space. The cytoplasmic membrane. The

mitochondria. Meaning of biological macromolecules. Molecular

mechanisms essential to cellular life.

## Detailed program

The cell as a functional unit. Organization of cellular space in functional compartments. The cytoplasmic membrane as protection, selection and mediation structure. The power source of the cell: the mitochondria.

Meaning of biological macromolecules (DNA, RNA, proteins, lipids, carbohydrates). Cellular junctions and signal transmission. Molecular mechanisms essential to cellular life. DNA replication. RNA transcription. Protein synthesis

## Prerequisites

None

## Teaching form

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

Although this course is held in Italian, for Erasmus students, course material can also be available in English, and students can take the exam in English if they wish to do so.

## Textbook and teaching resource

Detailed information on teaching resource will be published in the e-learning page associated with the cours.

All materials shown during lectures will be published in e-learning

## Semester

First semester

## Assessment method

Written exam: 15 multiple choice questions aimed at verifying the acquisition of notions reported in the detailed program. The correctness and consistency of the answers with respect to the question requested will be assessed. Optional final oral interview (at the request of the teacher or student) to discuss the written test.

Although this course is held in Italian, for Erasmus students, students can take the exam in English if they wish to do so.

## Office hours

Reception by appointment

## Sustainable Development Goals

GOOD HEALTH AND WELL-BEING