



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Biology

2122-1-I0202D138-I0202D126M

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#### 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**

Lectures.

Lessons will be held in presence, unless further COVID-19 related restrictions are imposed.

## **Textbook and teaching resource**

Resources distributed during the course by the teacher and published in e-learning

## **Semester**

First semester

## **Assessment method**

Written exam: 15 quizzes with multiple choice .

## **Office hours**

Reception by appointment

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