



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Biology

2021-1-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**

Lessons in the presence of the teacher.

During the Covid-19 emergency period lessons will take place according to the indications that will be provided to students by the degree course and according to the published timetable. Lessons will be held in mixed mode with the partial presence of the students and a synchronous streaming link via webex (for student not admitted in the classroom). The webex link will be made available on the elearning page of the course.

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## **Textbook and teaching resource**

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

## **Semester**

First semester

## **Assessment method**

Written exam: quizzes with single / multiple choice and open questions.

During the Covid-19 emergency period the exam will take place electronically with proctoring control.

## **Office hours**

Reception by appointment

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