UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Biology

2526-1-I0202D138-I0202D126M

Aims

Knowledge and understanding

Introduction to the study of biology
Description of the structure and function of the various components of neuronal eukaryotic cells

Applying knowledge and understanding

Ability to correlate structure and function
Ability to contextualize concepts of biology to everyday life and to health
Ability to assess critically interdisciplinary concepts

Making judgements

Students develop the ability to independently evaluate the methodological coherence of problem solving and critically interpret, among multiple possible options, the most suitable approach to the problem. The exam format stimulates independence of judgment and critical thinking in the application of theorical knowledge.

Communication skills

The course promotes the development of communication skills through classroom discussion.

Learning skilss

The course provides a solid theoretical foundation and allows the development of an active and autonomous study methodology, which is also useful for subsequent courses with greater specialization, as well as in future professional or research practice.

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

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.

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Office hours

Reception by appointment

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION