



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Fisiologia Umana

2425-2-H4101D253

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#### Aims

The objective of teaching human physiology is to provide students with a solid foundation to understand the normal functioning of the human body, which is essential for recognizing, diagnosing, and treating diseases in their future roles as physicians. During the course, students will learn to interpret physiological data and correlate these data with pathological conditions, developing analytical and critical thinking skills. This will provide the necessary basis for further studies in pharmacology, pathology, pathophysiology, and clinical medicine and surgery. Acquiring measurement techniques and interpreting experimental data are crucial for practical understanding of physiological functions. Furthermore, it is important for students to acquire the ability to communicate clearly and present physiological data in an understandable manner, as well as the skill to solve clinical problems through the application of acquired knowledge.

#### Contents

The course systematically and comprehensively presents the foundational concepts underlying human body functions. The mechanism leading to dysfunction cannot be appreciated without a deep understanding of basic physiological mechanisms. Therefore, the course will present these mechanisms that ensure cellular, tissue, organ, and system functions at integrated levels. In particular, the course will address the physiology of excitable and non-excitable cells, the cardiovascular system, the respiratory system, the nervous system, motor functions, and higher nervous functions.

During the course, the effects of the aging process and gender differences on human physiology will be emphasized.

Topics will be presented in a context that prepares students for their role as physicians. Therefore, whenever possible, clinical examples will be used to illustrate basic physiological principles.

## **Detailed program**

Please, refer to the specific module

## **Prerequisites**

To take the Human Physiology exam it is necessary to have passed the exam Human anatomy and histology

## **Teaching form**

All lessons 102 lessons of 2 hours each will be in person, except in emergencies. They will begin with an initial part where concepts will be presented (lecture-based mode), followed by interaction with students that defines the subsequent part of the lesson in interactive mode.

Teaching methods will include lectures, videos, and class discussions.

## **Textbook and teaching resource**

Please, refer to the specific module

## **Semester**

Second year, first and second semester

## **Assessment method**

No midterm assessments are scheduled. The exam consists of a written test with open-ended questions, ranging from 2 to 5 questions per module. The questions are designed to assess the student's overall knowledge of the topics, their ability to analyze complex phenomena, rationalize them, and apply specific principles of physiology. Students may also be asked to solve simple exercises and to analyze complex scenarios, with particular attention to the interconnections between physiological variables in light of theoretical paradigms. The final outcome will result from an integrated evaluation of the different modules. The overall final grade will be expressed on a scale of 30.

## **Office hours**

The professors receive by appointment upon agreement by e-mail  
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## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY | REDUCED INEQUALITIES

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