



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Fisiologia

2223-1-I0301D003-I0301D012M

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#### Aims

The student will learn to know and describe the functional mechanism of the integrated biological processes in conditions of normality and the fundamental tools for the pathologic alteration comprehension

#### Contents

The course provides students with the fundamental theoretical knowledge of physiology, with a view to their subsequent professional application. The following concepts will be examined: the functional mechanisms of the biological phenomenon integrated in normal conditions and the basic tools to interpret pathological changes

#### Detailed program

Physiology of the cardiocirculatory system: viscosity and density of the blood; the heart; ventricular pressure-volume relation; conduction system; electrocardiogram; arterial blood pressure and its determinants; blood pressure measurement. Respiratory physiology: oxygen transport-utilization system; transport of O<sub>2</sub> and CO<sub>2</sub> in the blood; principles of mechanics. Acid-base balance. Maintenance of water-salt balance: Homeostasis and internal environment. Renal physiology. Digestive system physiology. Nervous system physiology. Muscle physiology. Principles of sport physiology.

#### Prerequisites

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## **Teaching form**

Lectures and exercises

## **Textbook and teaching resource**

VV.AA.: Fisiologia dell'uomo. Edizioni Edi.Ermes, Milano.  
Guyton A.C.: Elementi di fisiologia umana. Piccin Editore.  
Teacher will provide other educational material.

## **Semester**

First semester

## **Assessment method**

Multiple choice final test comprising 30 questions with only one correct answer among 2, 3, 4 or 5, aimed at evaluating global comprehension of course program. Each correct answer is scored 1.  
At the discretion of the professor, the oral examination will be held.

## **Office hours**

By appointment required by mail

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING

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