UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# SYLLABUS DEL CORSO

# Fisiologia Umana

**2627-1-I0103D004**

## Aims

Knowledge and understanding
Acquire in-depth knowledge of human physiology and biophysics, with a specific focus on the functional integration of body systems, through teaching delivered by researchers with expertise in the relevant scientific fields.

Applying knowledge and understanding
Apply the principles of biophysics (statics, hydrostatics, hydrodynamics, radiation physics) to understand human body functions and to interpret physiological parameters relevant to nursing or midwifery practice.

Making judgements
Develop the ability to integrate theoretical knowledge and observable data in order to interpret complex physiological phenomena, especially in relation to clinical monitoring and healthcare procedures.
This competence will be enhanced through interactive teaching activities.

Communication skills
Use appropriate scientific language to describe the main physiological and biophysical mechanisms, and to communicate clearly and effectively with healthcare team members and patients.
This skill will be developed through group discussions and interactive learning activities.

Learning skills
Strengthen autonomous and critical learning abilities required for continuous professional development in scientific and clinical contexts, also through the use of specialist sources and practical experiences.
This competence will be supported by interactive teaching methods focused on reflection and problem-solving.

## Contents

Human Physiology course aims to give the student the concepts that govern integrated body functions in the living

organisms. Emphasis is put on relationships between health and body homeostasis, from the cells to the organ systems. Thus, an attempt will be made to define the limit of physiological adaptation to environmental conditions or to a developing disease. The course also aims to provide the basic principles of biophysics and medical physics needed to understand the biophysical mechanisms underlying the more relevant physiological processes.

## Detailed program

For the detailed syllabus, please refer to the individual modules.

## Prerequisites

Basic knowledge of Chemistry, Biochemistry, and Mathematics

## Teaching form

Lectures-based teaching and interactive teaching

## Textbook and teaching resource

Poltronieri Elementi di Fisiologia EdiSES

PHYSIOLOGY - Sherwood L. (2012) Fondamenti di Fisiologia Umana, Piccin-Nuova Libraria. Open choice by students among the Medicine Library's Physiology text books.

Scannicchio D., Giroletti E. (2015) Elementi di Fisica Biomedica, Edises, Milano.

## Semester

1 year - 2 Semester

## Assessment method

Physiology: Written exam. A quiz consisting of 33 questions will be administered; each question offers 5 possible answers, only one of which is correct.
Medical Physics: Written exam. A quiz consisting of 33 questions will be administered; each question offers 4 possible answers, only one of which is correct.
Time allowed: 120 minutes.
As this is an integrated examination, the final grade will result from the integration of the assessments of the two

modules, on the condition that a passing grade is achieved in both modules.

## Office hours

Previous appointment

## Sustainable Development Goals

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