



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Patologia Generale

2627-2-I0202D126-I0202D041M

---

#### Aims

The course aims to introduce the student to the knowledge of the causes of human diseases, understanding pathogenetic and pathophysiological mechanisms.

#### Contents

Understanding of basic physio-pathological concepts (homeostasis, disease, etiology, pathogenesis, ...), knowledge and understanding of human immune mechanisms. Differences in pathogenetic response, in the repair of damage and immune response between males and females from a gender perspective. Understanding of the concept of cellular and tissue damage. Inflammation and tissue repair. Mechanisms underlying tumor development.

#### Detailed program

General Pathology. Etiology. Pathogenesis. Concept of homeostasis and disease. Onset and course of disease. Acute and chronic diseases. General etiology. Physiological and pathological predisposing factors.

Causes of disease. Physical causes, chemical causes, biological causes: bacteria, viruses, protozoa, fungi, metazoans. Virulence. Pathogenicity. Transmission of infections. Spread of infectious agents. Pathogenic action.

General properties of the immune system. Innate immunity and adaptive immunity. The cells of the immune system. The soluble mediators. Antigens. The immune response

Acute and Chronic Inflammation. Phases of the inflammatory process. Chemical mediators. The cells of inflammation.

Pathophysiology of thermoregulation. Generalities. Thermogenesis: basal metabolism, regulation of thermogenesis. Termodispersion. Alterations in body temperature. Not fever Hyperthermia. Fever Hyperthermia: pathogenesis, course, types of fever.

Cellular homeostasis disorders. Atrophy, hypertrophy, metaplasia, dysplasia, cellular anaplasia. Cell injury and death.

Oncology. Benign and malignant tumors. Invasion and metastasis. Classification of tumors. Oncogenes and tumor suppressor genes. Epidemiology of cancers. Gender differences in cancer susceptibility.

## **Prerequisites**

None

## **Teaching form**

16 hours of face-to-face lectures in delivered didactics (DE).

## **Textbook and teaching resource**

Learning material will be available at the e-learning platform of the course.

## **Semester**

Second year, II semester

## **Assessment method**

Written exam aimed at verifying the acquisition of notions indicated in the program: 7 multiple choice questions and an open ended question. 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.

## **Office hours**

By appointment (email request)

# Sustainable Development Goals

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

---