UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

General Pathology

2425-1-I0201D127-I0201D034M

Aims

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

Contents

Homeostasis and disease. Etiology and pathogenesis: disease-causing agents. Acquired and innate immunity. The immune response. Cell and tissue damage. Inflammation and tissue repair. Oncology.

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

8 face-to-face lectures of 2 hours in delivered didactics (DE).

Textbook and teaching resource

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

Semester

First year, I semester

Assessment method

Written exam aimed at verifying the acquisition of notions indicated in the program: 15 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.
The exam will be performed only at the end of the course (no intermediate examination will be available).

Office hours

By appointment (email request)

Sustainable Development Goals

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