UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Genetics

2021-1-I0201D127-I0201D035M

Aims

To know the organization of the human genome. Understand how genetic variants are generated and their consequences. Know the rules of the transmission of Mendelian characters. Know the classification of genetic pathologies and some example pathologies.

Contents

The course is intended to provide students with fundamental concepts on

pathology and genetics relevant for their professional field

Detailed program

GENETICS:

Organization of the human genome (chromosomes and genes). Mitosis and meiosis, gametogenesis and Sex-determination. Genetic code, mutations , polymorphisms and their impact on proteins. Inheritance of mendelian traits and pedigrees. Classification of genetic disorders in humans (chromosomal, mendelian and non mendelian disorders). Examples of genetic diseases.

Prerequisites

DNA structure and replication - The flow of genetic information from

DNA to protein - Gene expression regulation

Teaching form

During the Covid-19 emergency period lessons will take place partly in physical presence of the teacher and partly as asynchronous videotaped lessons

Textbook and teaching resource

GENETICA: Dallapiccola

B., Novelli G., Genetica Medica essenziale, 2012, CIC Edizioni

Internazionali

Semester

First semester

Assessment method

Written exam: quizzes with multiple choice. During the Covid-19 emergency period the exam will take place electronically with proctoring control.

Office hours

By appointment required by mail