UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Medical Genetics

2627-1-I0302D002-I0302D008M

Aims

The student will learn how :

- to recognize the mode of inheritance of Mendelian characters;
- is the structure of human chromosomes;
- are the mechanisms of mitosis and meiosis
- are the sources of genetic variation;
- are basic concepts of quantitative genetics and population genetics.
- to recognize the main laboratory's techniques used in the field of the medical genetics.

Contents

The topics of the course concern the basics of formal human genetics, introducing the student to the diagnostic and research approaches of hereditary diseases.

Detailed program

- Mitosis and meiosis in relation to conventional cytogenetics.
- Mendelian genetics, extensions, recombination and linkage, genetic and physical maps.
- Mendelian Inheritance in man, pedigree reconstruction.
- Sex determination and X chromosome inactivation.
- Polymorphisms and mutations in the context of genetic variability.
- Basic principles of population and quantitative genetics.
- Laboratory's techniques of molecular biology and for diagnostic use.

Prerequisites

none

Teaching form

Lectures.

Textbook and teaching resource

Peter J. Russel Genetica Fondamenti

Supplementary material will be provided by teacher

Semester

First semester

Assessment method

multiulpe choice test

Office hours

On appointment by e-mail request

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING