

## COURSE SYLLABUS

### Genetics

2223-2-I0102D903-I0102D912M

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#### Aims

At the end of the course the student will know the fundamentals of human genetics.

#### Contents

The course provides to the student the foundations of human genetics.

#### Detailed program

TYPES OF DIAGNOSTIC TESTS IN GENETICS: APPLICATIONS, ADVANTAGES AND LIMITATIONS

- cytogenetics
- molecular cytogenetics (FISH and ARRAY CGH)
- molecular genetics: old and new generation sequencing
- GENETIC COUNSELLING
- theoretical, empirical and modified risks
- ethical and social aspects
- GENETIC TESTS
- classification: diagnostic, pre-symptomatic, predictive
- appropriateness of genetic testing
- GENOMIC DISEASES AND COMPLEX DISEASES
- INVASIVE AND NON-INVASIVE PRENATAL DIAGNOSIS

## **Prerequisites**

None

## **Teaching form**

Lectures, practice exercises and group work.

## **Textbook and teaching resource**

NERI G., GENUARDI M., Genetica umana e medica, 3°ed, Masson.

## **Semester**

I semester

## **Assessment method**

Written exam with multiple choice test with only one correct answer and oral exam

## **Office hours**

On appointment

## **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING

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