

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

# **COURSE SYLLABUS**

# **Genetics II**

2425-1-H4102D002-H4102D009M

# Aims

The course provides theoretical knowledge and practical training on molecular biology techniques related to nucleic acids analysis for medical research.

# Contents

Learning of the most common molecular biology techniques

# **Detailed program**

The course will develop around the following technologies:

- **Nuclei acids extraction**: isolation of total RNA from human cells, quantification of yield and purity using a spectrophotometer, analysis of RNA integrity by agarose gel electrophoresis.
- Polymerase chain reaction (PCR): reaction set up, analysis of the product by agarose gel electrophoresis.
- DNA restriction: reaction set up, analysis of the products by agarose gel electrophoresis.

# Prerequisites

**Basic sciences** 

# **Teaching form**

Three five-hour interactive practical training sessions delivered in presence.

# Textbook and teaching resource

Slides employed to provide some knowledge of the techniques will be handed out.

#### Semester

Second semester

#### Assessment method

The topics will be part of the final integrated oral examination (further details are reported in the Syllabus of the entire course).

# **Office hours**

By appointment

# **Sustainable Development Goals**

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION