



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### Tirocinio Professionalizzante Area Odontoiatrica 1

2122-2-H4601D029

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#### Aims

Students will accomplish a general knowledge of the main laboratory techniques, in particular nucleic acid and protein analysis, cell culture, PCR, flow cytometry and histological analysis.

As a final goal, the students will be able to read and understand the experimental procedures described in a paper on basic research related to the topics of the course.

#### Contents

The Internship provides the student with basic training on the main cellular, molecular and histological techniques applied in a research laboratory

The course will consist of a series of frontal lessons, with video and multimedial contents, followed by laboratory sessions in which the student will have the opportunity to practice some basic methods among those addressed.

In case of COVID-19 emergency extension,, the frontal lessons will be delivered through online lessons, recorded and made available to students. If possible, the practical part will be carried out in presence

#### Detailed program

- cell cultures: principles, main types and applications with a particular focus on stem cells and tissue engineering
- protein analysis: extraction and electrophoresis and immunoblotting methods
- nucleic acid analysis: extraction and electrophoresis and hybridization assays
- PCR methods

- flow cytometry: principles and applications
- histology: tissue processing, histological staining and immunohistochemistry. Microscopy techniques

The student will have the opportunity to practice some basic techniques among those addressed

## **Prerequisites**

Passing exams in the disciplines relevant to internship.

## **Teaching form**

Lectures on the principles of the different techniques and laboratory training.

In case of COVID-19 emergency extension,, the frontal lessons will be delivered through online lessons. If possible, the practical part will be carried out in presence

## **Textbook and teaching resource**

The teachers will provide slides of the lectures.

## **Semester**

Second semester of the second year.

## **Assessment method**

Students must take part at least at 70% of the course.

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Final evaluation will be approved/not approved

## **Office hours**

Monday to Friday, by appointment

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