UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Dental Internship 1

2021-2-H4601D029

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, 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 recorded lessons. 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 recorded 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.

The final test will be a multiple-choice quiz on the course topics and a interview on the practical laboratory experience.

Final evaluation will be approved/not approved

Office hours

Monday to Friday, by appointment