UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Dental Internship 1

2425-2-H4601D029

Aims

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.
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.

Contents

The Internship provides the students 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 contents and vitual lab simulations,. followed by hands-on laboratory sessions in which the students will have the opportunity to practice some basic methods among those addressed.

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, vitual lab simulations and laboratory training.

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 evaluation of the profit will be carried out by passing the questions on both theoretical and practical contents present in the Labster virtual simulation program. Some simulations will be integrated into the lessons while others will be assigned to the students and will have to be conducted independently. In each of the simulations assigned, the minimum score will be 70% of the maximum score.

Final evaluation will be: approved/not approved

Office hours

Monday to Friday, by appointment

Sustainable Development Goals

QUALITY EDUCATION