



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Organic Chemistry Laboratory

2021-3-E1301Q077-E1301Q082M

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#### Aims

The Organic Chemistry module allows the student to become confident with analytical and preparative chromatographic techniques and with reactivity of organic compounds applied to biological systems.

1. Knowledge and understanding.

At the end of the course, students will know basic theory and experimental of chromatography and chemical transformations of organic compounds.

2. Ability to apply knowledge and understanding.

At the end of the course, students will be able to apply the acquired knowledge to organic compounds transformation and purification.

3. Making judgements.

At the end of the course, students will be able to process what they have learned to general experimental methodologies.

4. Communication skills.

At the end of the course, students will be able to process the experimental data obtained and to describe the procedures and the results, using the most appropriate technical vocabulary.

5. Learning skills.

At the end of the course, students will be able to apply basic experimental techniques of the organic chemistry lab to biomolecules.

## Contents

The organic chemistry module aims to provide the students with basic chromatographic techniques and organic compounds transformation.

## Detailed program

The organic chemistry module will be organised in 4 experimental lab sessions, focussed on the following techniques and methodologies:

- ? Thin layer chromatography
- ? Column chromatography
- ? Organic compounds purification and separation through liquid-liquid extraction and partition
- ? Organic compounds reactivity: interconversion of functional groups towards the synthesis of biologically relevant derivatives

## Prerequisites

Background: Organic chemistry basics: polarity and solubility, functional groups reactivity.

Prerequisites: none.

## Teaching form

Lab experimental activities in equipped labs.

## Textbook and teaching resource

Slides and experimental protocols will be provided to students at the beginning of the teaching activity, and uploaded on the moodle teaching Platform.

## Semester

First semester

## Assessment method

Written test focussed on all teaching modules: the exam will be aimed at the evaluation of acquired competences in all disciplines involved. The ability to elaborate and integrate the experimental work with the theoretical basis of the experiments, and the development of interdisciplinary links will be evaluated.

The assessment will be organised in six sections, with open questions and multiple choice tests. In order to pass the exam it is necessary that the student has an evaluation greater than or equal to 18 in all the disciplines. In the event that the student does not achieve sufficiency even in one discipline, the test must be re-supported in full. The duration of the assessment will be 2 hours.

### **Office hours**

The teachers will receive by appointment requested by e-mail.

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