UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Organic Chemistry Laboratory

2223-1-E0201Q048-E0201Q059M

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 5 experimental lab sessions, focussed on the following techniques and methodologies:

? Thin layer chromatography;

? Preparative 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, illustrative videos and self-assessment tests will be made available on the e-learning platform.

Semester

Second semester

Assessment method

For the Organic Chemistry module, the assessment method is a written test of 1 hour, to be held in the computer room, through the e-learning platform, and aimed at assessing the skills acquired for each of the 6 modules of the

LIB teaching.

The test consists of a total of 46 closed questions (exercises, multiple choice questions) and a single open question, on the disciplinary contents of one of the modules. The closed questions allow to reach a maximum score of 29 (automatically assigned by the system, at the end of the test); to these from 0 to a maximum of 2 points are added that can be assigned to the open question, corrected by each teacher. The open question will be evaluated only upon reaching a score ?16.82 for the closed questions. An overall score> 30 allows the achievement of praise.

Office hours

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

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING