UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

General Chemistry Laboratory

2425-3-E1301Q084-E1301Q081M

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

Laboratory experimental activities conducted in equipped laboratories.
Four laboratory activities, 5 hours each, consisting of 1 hour of delivered teaching and 4 hours of Interactive Teaching. Attendance is mandatory
Teaching language: italian.

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 acquired skills .

The test consists of a total of 10 closed questions (exercises, multiple choice questions) and a single open question, on the topics covered during the course. Each correct multiple answer is worth 1 point, while the short answer is worth up to 2 points (total 12 points). There are no penalties for wrong answers. The score is then reported in 30th and cum laude will be given at discretion of the teacher.

Office hours

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

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING