UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Biological Complexity

2425-1-F0601Q110-F0601Q113M

Aims

This course will focus on applied botany, specifically on the main identification techniques of tree and shrub taxa useful for bioactive metabolites bioactive metabolites useful for human health.

Contents

The lab will focus on the main plant species that can be used for bioactive metabolites extraction.

Detailed program

Students will be trained on the main techniques used in the field for sampling and identifying plants, with particular focus on trees and shrubs. These activities will be implemented in a specific area during field trips on an actual operational setting. Most species encountered during the field trip activities will be identified and described with a particular emphasis on their potential for the extraction of specific bioactive metabolites. Also ecological and environmental aspects affecting the composition of plants in terms of bioactive metabolites will be described.

Prerequisites

Botany

Teaching form

Lectures will be held in Italian language in person (no streaming). Field trips are substantial part of the program.

- 1/5 of the lessons will be carried out in delivery mode (delivery teaching, DE) focused on the presentation of the laboratory contents
- 4/5 of the lessons will be carried out in an interactive way through field experiences that include daily and multi-day excursions

Textbook and teaching resource

Reading material provided by the teacher (ppt slides in Italian)

Semester

Second semester

Assessment method

Students will be asked to elaborate a short report (max 3 pages) on one plant (tree or shrub) species encountered during field trip or (when not possible) on a plant with high potential bioactive metabolite production. The report should briefly describe morphology, ecology and distribution of the plants highlighting the main bioactive metabolites and their potential uses.

Office hours

By appointment

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | SUSTAINABLE CITIES AND COMMUNITIES | CLIMATE ACTION | LIFE ON LAND