UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Ecosystem Services (supporting)

2223-1-F0601Q109-F0601Q112M

Aims

This course will focus on the practical knowledge of trees and their application in urban forestry and Nature-Based Solutions. 1. Knowledge and understanding: by the end of the term students are expected to have acquired confidence with the main tree species used for reforestation and Nature-Based Solution projects in urban context. 2. Applied knowledge and understanding: in addition to mastering the main notions in urban botany and biodiversity in urbanized context, students are expected to develop critical skills for practical application of the acquired knowledge in various fields of applied plant biology. 3.Autonomy of judgment: by the end of the term students are expected to recognize the main tree species used in the city and their potentials for phyto-technological application and biodiversity protection. 4. Communication skills: by the end of the term students are expected to be able to communicate their understanding of the presented topics using accurate scientific language and technical terminology. 5. Learning skills: by the end of the term students are expected to be able to read the scientific literature and deepen the main topics. In addition students are expects to be able to manage research and applied projects related to recover and valorization of plant diversity in town.

Contents

This course will describe the main green approaches that are currently used to improve the quality of the environment in town. Particular attention will be paid to the identification of trees commonly used in urban forestry and to describe their environmental and social role to build more resilient towns.

Detailed program

The tree: biological forms, growth, root systems. Systematics, morphology, ecophysiology, chorology of the main species of the main tree species commonly used in urban forestry and environmental applications. Lab activities on

practical use of keys for the identification of the most common trees. Phytotechnologies: theory and practical application in urban context.

Prerequisites

Botany, Plant Physiology

Teaching form

Lecture (2 credits)

Textbook and teaching resource

• Grossoni P., Bruschi P., Bussotti F., Selvi F. (2018) – Trattato di Botanica forestale. 1. Parte Generale e Gimnosperme. CEDAM Scienze Naturali Wolters Kluwer. Milano.
• Grossoni P., Bruschi P., Bussotti F., Pollastrini M., Selvi F., 2020. Trattato di Botanica forestale. 2. Angiosperme. CEDAM Scienze Naturali Wolters Kluwer. Milano.
• Reading material provided by the teacher.

Semester

Second

Assessment method

Oral

For the exam, students will discuss a topic of their choice and a question posed by the instructor. The accurate use of scientific language to explain the topics and the ability to relate them will also be evaluated.

Office hours

By appointment: werther.guidinissim@unimib.it

Sustainable Development Goals