

# UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

#### **SYLLABUS DEL CORSO**

# **Next Generation Sequencing and Bioinformatic Tools for Ecological Studies**

2324-1-124R036

#### **Title**

Next Generation Sequencing and bioinformatics tools for ecological studies

#### Teacher(s)

Andrea Franzetti ; Isabella Gandolfi

#### Language

**English** 

#### **Short description**

The course is a methodological introduction to amplicon-based surveys using Next Generation Sequencing (NGS) platforms. When applied to environmental samples, such surveys can represent a powerful tool for taxonomic and functional studies tool in ecological disciplines.

Detailed contents:

- 1) theoretical introduction;
- 2) DNA extraction from environmental matrices and preparation of amplicon libraries for NGS;
- 3) sequence analysis from NGS through bioinformatics tools (Bio-Linux environment).

Evaluation: NO

#### **CFU / Hours**

2 CFU - 20 Hours (8h Lecture, 12 Laboratory training)

## **Teaching period**

II semester: June 2024

### **Sustainable Development Goals**