



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## SYLLABUS DEL CORSO

### **Application of Next Generation Sequencing and bioinformatics tools to ecological studies (Curricular Environment)**

2223-94R-SCGA35

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#### **Title**

Application of Next Generation Sequencing and bioinformatics tools to 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**

1,5 CFU - 16 Hours (4h lecture, 4h lab work, 8h bioinformatics lab work)

### **Teaching period**

II semester

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