

## COURSE DETAIL

### MICROBIOLOGY APPLIED ON THE ENVIRONMENTAL REMEDIATION AND BIOENERGY

**Country**

Italy

**Host Institution**

University of Bologna

**Program(s)**

University of Bologna

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Biological Sciences Bioengineering

**UCEAP Course Number**

141

**UCEAP Course Suffix****UCEAP Official Title**

MICROBIOLOGY APPLIED ON THE ENVIRONMENTAL REMEDIATION AND BIOENERGY

**UCEAP Transcript Title**

MICROBIOLGY & ENV

**UCEAP Quarter Units**

4.00

## **UCEAP Semester Units**

2.70

### **Course Description**

In this course students obtain knowledge in microbiology topics with a focus on the main microbial groups involved in bioenergy production from biomasses and in the biodegradation of environmental pollutants. Students are able to apply acquired knowledge in the management of plants for bioenergy production and for the bioremediation of contaminated habitats. The course is composed of two sections, each one having a theoretical part, performed via usual class teaching, and a practical part, performed via laboratory activity or visits to farms/factories. Part 1: Application of microorganisms in bioenergy and bioplastic production including biogas production, bioethanol production, biohydrogen production, and bioplastic production. This part of the course includes a visit to a biogas producing plant fed with waste products and biomasses. Part 2: Application of microorganisms for environmental remediation including soil, water and wastewater, and microbial indicators in water pollution and decontamination. Prerequisite for this course is a course in general microbiology and a course in biochemistry.

### **Language(s) of Instruction**

English

### **Host Institution Course Number**

88139

### **Host Institution Course Title**

MICROBIOLOGY APPLIED ON ENVIRONMENTAL REMEDIATION AND BIOENERGY

### **Host Institution Course Details**

### **Host Institution Campus**

SCIENZE AGRO-ALIMENTARI

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**

Tecnologie agrarie

**Course Last Reviewed**

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