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 THE ENVIRONMENTAL REMEDIATION AND BIOENERGY

Host Institution Campus
SCIENZE AGRO-ALIMENTARI

Host Institution Faculty

Host Institution Degree

Host Institution Department
Tecnologie agrarie

Print