COURSE DETAIL

MICROBIAL ECOLOGY
Country Netherlands
Host Institution Utrecht University
Program(s) Utrecht University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Biological Sciences
UCEAP Course Number 110
UCEAP Course Suffix
UCEAP Official Title MICROBIAL ECOLOGY
UCEAP Transcript Title MICROBIAL ECOLOGY
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description
The course is designed to cover the full spectrum of microbial ecology. Lectures and associated lab practical sessions therefore focus on general issues in microbial ecology as well as specific microbial groups and microbe-driven processes. Specific topics that are covered include: the history of microbial ecology; patterns of microbial diversity and diversity/function relationships; linking microbial identity with function; microbiology of the soil and the rhizosphere; plant disease and plant disease protection; microbial ecology of the C-cycle; decomposition of recalcitrant organic matter; bioremediation; microbial ecology of the N-cycle; microbial ecology of the S-cycle; microbial diversity of aquatic habitats; microbial diversity of extreme habitats; human microbiology and the human microbiome; microbial genomics; metagenomics; fungal ecology and bacteria-fungal interactions; ecology and evolution of microbial symbioses; microbial biotechnology; microbes in trophic interactions and food webs. Most course days are half theoretical and half practical. A number of experiments are conducted during the course, which are analyzed at different times throughout the course. One week is also devoted to a computer practical designed to teach about handling and analyzing high throughput DNA sequencing data. The course also contains a number of guest lectures from experts in specific hot topics in microbial ecology. It is recommended that students have taken several previous ecology and/or microbiology courses prior to enrolling in this course.

Language(s) of Instruction
English

Host Institution Course Number
B-B3MECO15

Host Institution Course Title
MICROBIAL ECOLOGY

Host Institution Course Details
https://osiris-student.uu.nl/onderwijscatalogus/extern/cursussen

Host Institution Campus

Utrecht University

Host Institution Faculty
Science

Host Institution Degree

Host Institution Department
Biology

Course Last Reviewed
2024-2025

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