

COURSE DETAIL

ECOLOGICAL ASPECTS OF BIO-INTERACTIONS

Country

Netherlands

Host Institution

Wageningen University and Research Center

Program(s)

Wageningen University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Biological Sciences Agricultural Sciences

UCEAP Course Number

100

UCEAP Course Suffix**UCEAP Official Title**

ECOLOGICAL ASPECTS OF BIO-INTERACTIONS

UCEAP Transcript Title

BIOINTERACTIONS

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

The course focuses on bio-interactions between invertebrates (arthropods, nematodes), micro-organisms and plants, and beneficial organisms and pathogens and their hosts in natural and agro-ecosystems. The major themes covered in the lectures include biodiversity, interaction and communication between organisms (including different trophic levels), fundamental mechanisms underlying bio-interactions, and ecosystem services. Students concentrate on intraspecific and interspecific interactions and apply this knowledge to explore, monitor, and evaluate agro-ecosystem management strategies using biodiversity principles, often referred to as functional biodiversity. After successful completion of this course, students are able to understand and predict the responses and interactions of individual organisms, communities, and ecosystems; explore, develop, and evaluate management strategies and practices that enable and ensure the sustainable use of natural resources and conservation of biodiversity; manage the interactions between crops, (parasitic) weeds, insects, bacteria, fungi, viruses, and nematodes at different trophic levels; strengthen the inherent quality of agro-ecosystems in preventing pest and disease development by using genetic control, cultural control, biological control, and other biorational options; and execute a research project.

Language(s) of Instruction

English

Host Institution Course Number

ENT-30306

Host Institution Course Title

ECOLOGICAL ASPECTS OF BIO-INTERACTIONS

Host Institution Campus

Biology

Host Institution Faculty

Host Institution Degree

Host Institution Department

