COURSE DETAIL

FOOD MICROBIOLOGY

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
125

UCEAP Course Suffix

UCEAP Official Title
FOOD MICROBIOLOGY

UCEAP Transcript Title
FOOD MICROBIOLOGY

UCEAP Quarter Units
5.00

UCEAP Semester Units
3.30

Course Description

Knowledge of foodborne microorganisms is essential for supplying safe and wholesome foods with a long shelf life. This course offers an introduction to the basics of food microbiology and discusses both the negative aspects of micro-organisms, such as spoilage and disease and the positive effects of fermentative processes. Characteristics of food that influence growth and inactivation of micro-organisms (e.g. water activity, pH, preservatives, heating, modified atmosphere packaging) are reviewed. The course provides a detailed introduction to the main bacterial foodborne pathogens (e.g. Campylobacter, Salmonella, E. coli O157, Listeria monocytogenes) and methods for microbial examination, but also deals with foodborne viruses, parasites, and fungi. Moreover, good manufacturing practices, personal hygiene, and the principles of cleaning and disinfection are explained. In a three-week lab class, spoilage organisms and pathogens are isolated from food products and environments using traditional and molecular methods. In the tutorial classes, molecular identification methods are explored, and the effect of several bactericidal treatments is investigated.

Language(s) of Instruction
English

Host Institution Course Number
FHM20306

Host Institution Course Title
FOOD MICROBIOLOGY

Host Institution Course Details
https://wur.osiris-student.nl/#/onderwijscatalogus/extern/cursus

Host Institution Campus
Wageningen University

Host Institution Faculty

Host Institution Degree

Host Institution Department
Food Microbiology

Course Last Reviewed
2023-2024

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