

COURSE DETAIL

FOOD FERMENTATION

Country

Netherlands

Host Institution

Wageningen University and Research Center

Program(s)

Wageningen University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Biological Sciences

UCEAP Course Number

101

UCEAP Course Suffix**UCEAP Official Title**

FOOD FERMENTATION

UCEAP Transcript Title

FOOD FERMENTATION

UCEAP Quarter Units

5.00

UCEAP Semester Units

3.30

Course Description

This course is a study of the theory behind the use of microorganisms in food fermentation processes. Topics covered include the theoretical background of functional microorganisms (lactic acid bacteria, yeasts, and molds) and their behaviors as fermentation starters, the process engineering aspects of the formation of biomass and products, and modern biotechnology in food fermentation. Students also learn about applied aspects (commodity technologies) and skills (laboratory fermentations, interaction between theory and practice). The practical class consists of modules about beer and dairy fermentation, and computer aided simulations which give insight into important parameters and orders of magnitude. After successful completion of this course, students are able to understand the role of fermentation microorganisms in major food fermentations; understand the biochemical activities and conversions that take place during fermentations and their impact on quality and safety; carry out simple calculations on stoichiometry, microbial growth, and transfer processes during food fermentations; and carry out food fermentation processes and monitor their progress by measurements and analyses.

Language(s) of Instruction

English

Host Institution Course Number

FHM-21806

Host Institution Course Title

FOOD FERMENTATION

Host Institution Course Details

Host Institution Campus

Food Technology

Host Institution Faculty

Host Institution Degree

Host Institution Department

Food Microbiology

Course Last Reviewed

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