Course Specifications
Valid as from the academic year 2017-2018

Course

Food Fermentations (I001496)

Lecturers in academic year 2017-2018
Raes, Katleen
LA16 lecturer-in-charge

Course offerings and teaching methods in academic year 2017-2018
A (semester 2) lecture 30.0 h
self-reliant study activities 7.5 h
excursion 7.5 h

Lecturers in academic year 2017-2018
Raes, Katleen
LA16 lecturer-in-charge

Offered in the following programmes in 2017-2018
Master of Science in Food Technology 4 A
Exchange Programme in Bioscience Engineering: Chemistry and Bioprocess Technology (master's level) 4 A
Exchange Programme in Bioscience Engineering: Food Science and Nutrition (master's level) 4 A

Teaching languages
English

Keywords
Food Fermentations, fermentation techniques, bacteria, yeasts, molds, indogenous fermented food products

Position of the course
The course will focus on the production of different fermented foods, both industrial processes and traditional fermented food products. The role of the most important microorganisms (lactic acid bacteria, Bacillus, acetic acid bacteria, yeast, molds, ....) will be discussed. The impact of the fermentation process on microbiological, enzymatic, biochemical, nutritional changes will be dealt with. Different fermentation techniques will be discussed.

Contents
1. Introduction
2. Lactic acid fermentations
3. Alcoholic fermentations
4. Alkaline fermentations
5. Acetic acid fermentations
6. High salt/savory sauce and paste fermentations
7. Fermentations producing meat substitutes
8. company visits
9. task

Initial competences
Basic knowledge of biochemistry and microbiology

Final competences
1. The student understands the principles of food fermentations and its applications
2. The student understands the role of the different microorganisms in the food fermentation process.

Course size
(nominal values; actual values may depend on programme)
Credits 4.0
Study time 120 h
Contact hrs 45.0 h

Courses

(Approved)
3. The student has insight in the biochemical, enzymatic and chemical reactions occurring during the production of fermented foods.

**Conditions for credit contract**

Access to this course unit via a credit contract is determined after successful competences assessment.

**Conditions for exam contract**

This course unit cannot be taken via an exam contract.

**Teaching methods**

Excursion, lecture, self-reliant study activities.

**Extra information on the teaching methods**

Task: Making a report related to a local fermented food product

Oral lectures

**Learning materials and price**

Syllabus is available

**References**


**Course content-related study coaching**

The students can contact the professor after the lectures.

**Evaluation methods**

end-of-term evaluation

**Examination methods in case of periodic evaluation during the first examination period**

Written examination with open questions

**Examination methods in case of periodic evaluation during the second examination period**

Written examination with open questions

**Examination methods in case of permanent evaluation**

Report

**Possibilities of retake in case of permanent evaluation**

examination during the second examination period is possible in modified form

**Calculation of the examination mark**

Students who eschew period aligned and/or non-period aligned evaluations for this course unit may be failed by the examiner

Oral exam: 75%

Report and defence of the task: 25%