Course Specifications
Valid as from the academic year 2016-2017

Technology of Vegetable Products (I001282)

Course offerings and teaching methods in academic year 2017-2018

A (semester 2)
- Practicum: 10.0 h
- Seminar: coached exercises: 3.75 h
- Self-reliant study activities: 2.5 h
- Lecture: 27.5 h
- Guided self-study: 10.0 h
- Demonstration: 2.5 h
- Excursion: 3.75 h

Course size

<table>
<thead>
<tr>
<th>Credits</th>
<th>Study time</th>
<th>Contact hrs</th>
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<tr>
<td>5.0</td>
<td>135 h</td>
<td>60.0 h</td>
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Lecturers in academic year 2017-2018

- Dewetinck, Koen LA07 lecturer-in-charge
- Van Bockstaele, Filip LA15 co-lecturer

Offered in the following programmes in 2017-2018

- Master of Science in Chemical Engineering: 5 crdts A
- Master of Science in Chemical Engineering: 5 crdts A
- Master of Science in Bioscience Engineering: Chemistry and Bioprocess Technology: 5 crdts A
- Master of Science in Bioscience Engineering: Food Science and Nutrition: 5 crdts A
- Exchange Programme in Bioscience Engineering: Chemistry and Bioprocess Technology (master's level): 5 crdts A
- Exchange Programme in Bioscience Engineering: Food Science and Nutrition (master's level): 5 crdts A

Teaching languages

- English

Keywords

- Fats, oils, cereals, sugars, sweeteners, starch, vegetables, fruit, soy(bean), potato, composition, processing, preservation

Position of the course

This product focused course deals with the technologies applied in the processing and preservation of vegetable products. Attention is paid to the study of the raw material, processing and preservation techniques, and quality aspects of the final product.

Contents

- Theory
  1. Fats and oils processing
  2. Sweeteners
  3. Fat and sugar replacements
  4. Cereal processing
  5. Starch processing and modification
  6. Gums and hydrocolloids
  7. Soybean processing
  8. Coffee and tea processing

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9. Fruit, vegetable and potato processing
10. Chocolate processing

**Workshops**
1. Workshop cocoa and chocolate processing
2. Workshop soybean processing
3. Workshop minimally processed vegetables
4. Workshop fat modification
5. Workshop bread making

**Initial competences**
Basic knowledge in biochemistry/biology

**Final competences**
1. Understand the processing of vegetal raw material into food products
2. Gain insight in the functionality of the vegetal raw material used for food products
3. Be aware of the impact of processing of vegetal raw material on the quality of food products in a wide sense
4. Perform calculations related to fat modification
5. Gain insight in microstructure of plant based products and their production processes
6. Write a scientific report related to a workshop
7. Integrate theoretical concepts in the practical sessions

**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**
Guided self-study, demonstration, excursion, lecture, practicum, self-reliant study activities, seminar: coached exercises

**Extra information on the teaching methods**
The theory is given by means of lectures. A syllabus and slides are available as study material. During the exercises students have time to solve the problems individually or in group.
For the practical exercise the students will perform experiments and analyses in the lab.
Demonstration sessions are given.
A company visit is included to illustrate the theory.

**Learning materials and price**
There is an English syllabus available.
The course slides are available on Minerva.

**References**
Course content-related study coaching
Possibility to consult a teacher or his collaborators after the theoretical lectures or exercises, on appointment.
The (practical) exercises are guided by a teaching assistant.

Evaluation methods
end-of-term evaluation and continuous assessment

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
Participation, assignment

Possibilities of retake in case of permanent evaluation
examination during the second examination period is possible in modified form

Extra information on the examination methods
PE1 and PE 2: The exam is written. Open questions will be asked to assess insight in the study material.
NPE: the task is evaluated by the teaching assistants. Participation during exercises and practical sessions is evaluated by presence and commitment.

Calculation of the examination mark
Task and exercises: 10%, Written exam: 90%
Students who eschew period aligned and/or non-period aligned evaluations for this course unit may be failed by the examiner.

New York, 553p

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