



LTH

FACULTY OF
ENGINEERING

Course syllabus

Livsmedelsteknologi för formulering Food Technology for Formulation

KLGN25, 7,5 credits, A (Second Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED B/K

Date of Decision: 2023-04-18

General Information

Main field: Food Technology and Nutrition.

Compulsory for: MLIV1

Elective Compulsory for: MLSA1

Elective for: B4-lm

Language of instruction: The course will be given in English

Aim

To provide a science-based holistic approach to colloidal, structural and functional properties of formulated food, its ingredients, and components.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- know how the properties of different materials or formulations can be used to develop functional and healthy foods
- describe the food structure on different levels with different degrees of complexity
- be able to describe how different components of formulations interact and give rise to functionality
- know the colloidal properties and its role in various food systems

Competences and skills

For a passing grade the student must

- have the ability to critically identify, formulate and manage issues relating colloidal properties and texture of food formulations
- orally and written form discuss and report how different raw materials or ingredients can be used to develop functional food
- be able to explain, analyze and systematically highlight the importance of the formulation of food structure, content and bioavailability of the nutrient
- have the ability to independently and in group plan, report and discuss the findings and conclusions of practical sessions

Judgement and approach

For a passing grade the student must

- be able to independently seek and evaluate information in scientific articles
- show ability for teamwork and collaboration in different groups

Contents

Lectures, lab practicals, seminars, field trip, project work (based on field trips to the food industry).

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)

Assessment: Approved written test, orally presented project, participation in lab practicals and field trips. The grades 4 and 5 on the TH-scale are obtained through a home exam based on the project. It is not possible for students to take a re-examination for a higher grade based on the home exam. If students want to increase their grade this can be allowed (after approval of the course responsible) if the student performs a new project on which the home exam is based. This will only be possible the next time the course is given.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Admission

Assumed prior knowledge: KLGN30 Food Chemistry and Nutrition

The number of participants is limited to: No

The course overlaps following course/s: KLG080

Reading list

- Coultate, T.P: Food - The chemistry of its components. The Royal Society of Chemistry, 2002, ISBN: 0-85404-615-1. Additional chapters from several books, which are electronically available from the university library, are used in the course.

Contact and other information

Course coordinator: Lars Nilsson, lars.nilsson@food.lth.se

Examinator: Lars Nilsson, lars.nilsson@food.lth.se

Course homepage: <https://www.ple.lth.se/en/>