CK2000 Food chemistry and technology 7.5 credits

Livsmedelskemi- och teknologi

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for CK2000 valid from Autumn 2022

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Chemical Science and Engineering

Specific prerequisites

At least 150 credits from grades 1, 2 and 3 of which at least 110 credits from years 1 and 2, and bachelor's work must be completed, within a programme that includes:
75 university credits (hp) in chemistry or chemical engineering, 20 university credits (hp) in mathematics and 9 university credits (hp) in computer science or corresponding.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, the student must be able to

- Describe the chemical properties and reaction mechanisms of the most common food components
- Explain from a systems perspective how food technology affects sustainable development
- Carry out a project including a literature study and laboratory experiments to solve a scientific problem in food chemistry and technology, and be able to evaluate and discuss the results both orally and in a written report

Course contents

- Molecular structure of food components: carbohydrates, proteins, lipids, metabolites and food additives
- Important chemical reactions in food technology: Maillard reaction, oxidation
- Food colloids
- Analytical techniques in food chemistry
- Sustainable food systems in a circular economy

Examination

- PRO1 - Laboratory project in food chemistry and technology, 3.0 credits, grading scale: P, F
- TEN1 - Written examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.