AL2110 Sustainable Food Production and Consumption 7.5 credits

Hållbar livsmedelsproduktion och konsumtion

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

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

Establishment

The course syllabus is valid from Autumn 2023 according to the Head of school decision: A-2023-0461, 3.2.2. Decision date: 2023-03-27

Grading scale

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

Education cycle

Second cycle

Main field of study

Environmental Engineering,Mechanical Engineering

Specific prerequisites

Admitted to Master's Programme, Sustainable Technology (TSUTM).

Others: Degree of Bachelor or Degree of Bachelor of Science in Engineering or other corresponding technical, natural or other science degree at first cycle academic education of at least 180 higher education credits or equivalent.

Courses from upper secondary school corresponding to the courses Eng B/6 according to the Swedish upper secondary school system or equivalent.

Language of instruction

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

Intended learning outcomes

After finishing the course, the student should be able to:

- analyse, compare and constrast the environmental, economic and social sustainability aspects of alternative food production and consumption systems (e.g. organic vs. conventional farming; animal-based vs. animal-free diets);
- evaluate and critically assess alternative systems of food production and consumption with a hard (i.e. quantitative) systems approach; and
- argue rationally, logically and coherently, as well as in a courteous manner, for the relative sustainability impacts associated with the different systems for food production and consumption.

Course contents

The course describes alternative food systems and the complexities associated with assessing their sustainability, and demonstrates the sustainability trade-offs between contrasting systems (e.g. local vs. global; extensive vs. intensive). Topics covered include: agroecology, food and farming systems, nutrient cycles, sustainability impacts, life cycle assessment, climate change, ecosystem services, biodiversity, land-use and water-use impacts, food security and sovereignty, trade, GMOs.

Examination

- PRO4 - Project, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- SEM1 - Seminar, 1.5 credits, grading scale: P, F
- SEM2 - Seminar, 0.5 credits, grading scale: P, F
- TEN1 - Exam, 2.5 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.

Other requirements for final grade

Passed seminars, project work and exam

Students who have not completed the course with previous examination are asked to contact the examiner.

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.