AL2110 Sustainable Food Production and Consumption 7.5 credits

Hållbar livsmedelsproduktion och konsumtion

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

Establishment

Course syllabus for AL2110 valid from Spring 2019

Grading scale

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

Education cycle

Second cycle

Main field of study

Environmental Engineering, Mechanical Engineering

Specific prerequisites

TSUTM: -

Others: Open for KTH programme students with at least 180 ECTS or a Bachelor degree for other applicants

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Language of instruction

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

Intended learning outcomes

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

- describe and discuss the sustainability of alternative food and farming systems (e.g. organic vs. conventional farming);

- describe and discuss the sustainability of alternative diets;

- assess a current food system challenge with a hard (i.e. quantitative) systems approach;

- model nutrient stocks and flows of a selected system, as well as their disruption;

and

- reflect upon one's own state of knowledge and identify additional information needs and skill development, and reflect upon one's own abilities, strengths and weaknesses both in science and as a professionally active person and work team member.

Course contents

The course aims to show alternative food systems and the complexities associated with assessing their sustainability. The course demonstrates the trade-offs with closing the loop (e.g. nutrient cycles) in food systems. Topics covered include: agroecology, food and farming systems, disturbance of nutrient stocks and flows and the implications of perturbing global biogeochemical cycles on environmental change, life cycle assessment, climate change, ecosystem services, biodiversity, land-use and water-use impacts, food security and sovereignty, trade.

Disposition

Lectures as well as seminars and project work

Course literature

Meddelas vid kursstart

To be described before course start

Equipment

The course uses KTH's learning management system (LMS) as an important support. A computer with internet and e-mail and the possibility to use Word and Excel (Microsoft version recommended) and to read pdf- files is necessary. Other software that is needed in the course will be downloadable from the internet or from the LMS or made available on KTH computers.

Examination

- PRO1 - Project, 5.0 credits, grading scale: A, B, C, D, E, FX, F
- RED1 - Assessment, 1.5 credits, grading scale: P, F
- ATT1 - Attendance, 1.0 credits, grading scale: P, 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.

- SEM1 – Seminarium/Seminar, 1,5 hp , betygsskala: P, F
- SEM2 – Seminarium/Seminar, 0,5hp, betygsskala: P,F
- PRO1 – Projekt/Project work, 3,0 hp , betygsskala: A, B, C, D, E, FX, F
- TEN1 – Tentamen/Exam, 2,5 hp , betygsskala: A, B, C, D, E, FX, F

Other requirements for final grade

Passed seminars, project work and exam

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.