AL2190 Ecological Economics 7.5 credits

Ekologisk ekonomi

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

Establishment

The course syllabus is valid from spring term 2023 according to the Head of school decision: A-2022-2467, 3.2.2.Date of decision: 2022-10-12

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: Admitted to a program at KTH - Royal Institute of Technology and at least completed 180 ECTS credits. Courses from upper secondary school corresponding to the courses Eng B/6 according to the Swedish upper secondary school system.

Language of instruction

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

Intended learning outcomes

The aim of the course is to make students without prior economics knowledge/background understand the basic principles and tools associated with competing approaches that guide sustainable development (i.e. Environmental Economics and Ecological Economics)

The student should be able to after concluding this course:

- Describe the history of economic thought and its relation to sustainable development
- Describe and explain the basic principles of macro- and microeconomics in relation to sustainable development and analyse strengths and limitations of these theories
- Describe and explain the fundamental concepts and theories of neoclassical environmental economics and ecological economics and analyse strengths and limitations of these theories;
- Describe and apply alternative tools for integrating sustainability criteria in (economic) decision-making

Course contents

In lectures and seminars, central principles of economic thinking will be explained and discussed, including:

- sustainable development: production and consumption
- price mechanism and market failures
- capital stocks, natural capital and resource maintenance
- consumption and the consumer society
- GDP growth, limits to growth, degrowth
- welfare and income distribution
- tragedy of the commons
- ecosystem services
- environmental taxes and quotas
- poverty alleviation, globalisation and trade
- ecological footprint
- cost-benefit analysis
- multiple criteria decision analysis

Examination

- PRO2 - Project, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- SEM2 - Seminar, 0.5 credits, grading scale: P, F

- SEM3 - Seminar, 0.5 credits, grading scale: P, F
- TEN2 - Written examination, 3.5 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.

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

Other requirements for final grade

All parts of the course must be completed.

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.