



AL2190 Ecological Economics

7.5 credits

Ekologisk ekonomi

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

Course syllabus for AL2190 valid from Autumn 2014

Grading scale

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

Education cycle

Second cycle

Main field of study

Environmental Engineering, Mechanical Engineering

Specific prerequisites

At least 150 academic credits in a program of engineering or natural science or course MJ1502 or MJ2511 or MJ2651 or MJ2652 or corresponding knowledge including documented proficiency in English B or equivalent.

Language of instruction

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

Intended learning outcomes

The student should be able to after concluding this course:

- Describe and explain the basic principles of macro- and microeconomics in relation to sustainable development and analyse strengths and limitations in these theories
- Describe and explain the fundamental concepts and theories of neoclassical environmental economics and ecological economics and analyse strengths and limitations in these theories
- Estimate cost-effectiveness of means of control in neoclassical environmental economics and other means of control in respect to cost-effectiveness and incentives for technological change
- Describe possibilities in integrating sustainability criteria in economic decision-making
- Using the net present value (NPV) method for determining the time value of money to appraise long-term projects.

Course contents

In lectures and seminars central principles of economic thinking will be discussed and explained. Among others, price mechanism and market failures, incentives, capital stocks and resource maintenance, sustainable development and natural capital, consumption and the consumer society, GNP and welfare, scale, distribution and allocation, tragedy of the commons, benefit-cost analysis and discount rate, ecosystem services, ecological footprint, taxes and means of control in the environmental and sustainability area, globalisation and trade

Course literature

H Herman E. Daly and Joshua Farley. *Ecological Economics: Principles and Applications*. Island Press, 2004. Additional scientific papers.

Examination

- SEM1 - Seminar, 3.0 credits, grading scale: P, F
- TEN1 - 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.

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.