



AG1812 Environmental Economics 7.5 credits

Miljöekonomi

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

Establishment

Course syllabus for AG1812 valid from Spring 2019

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Language of instruction

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

Intended learning outcomes

The overall aim of the course is to give the students a basic theoretical and methodological tool kit for evaluating common environmental and resource economic issues, as well as to give students basic knowledge in environmentally driven business development, accounting and finance.

After the course the student should be able to:

1. describe the economic theory that is used to analyze resource economic problems, and be able to apply this theory.
2. describe the need for government policy measures in different resource economic areas, describe why these measures can contribute to a more sustainable development, and be able to apply policy measures theory.
3. explain the relevant empirical methods used to value non-market priced amenities, and explain how non-market valuation can contribute to a better resource allocation and a more sustainable development.
4. explain and apply cost-benefit analysis (CBA).
5. ability to explain how management control in a company is organized and performed
6. make, use, and interpret common costing models as input for decision making in different situations in a company
7. understand the underlying principles of bookkeeping, accounting, and financing in a company and, on a basic level, compile and interpret a company's annual financial statement
8. explain what is meant by environmentally driven business development and understand the obstacles and opportunities for innovation and implementation of more environmentally efficient products and services.
9. individually and in group report and present findings from the course in written and oral form, and as a discussion opponent.

Course contents

The course is composed of three main parts, one larger and two smaller. The larger section consists of environmental and resource economics, and the smaller sections of accounting and finance and environmentally driven business development respectively. Applications of theories and methods will mainly be illustrated with examples from energy related issues.

The first section contains studies on the economic theory that is used for analyzing natural resource problems. Further, it is studied how policy instruments can be used to achieve a more sustainable and efficient use of natural resources, renewable and non-renewable. Since non-market priced utilities often are valued to zero when policy actions or business investments are evaluated, time is devoted to studying methods for valuing these utilities. Finally, this part of the course contains studies on cost-benefit analysis (CBA), a method to evaluate the economic consequences of various investments and policy actions. The method helps to highlight issues concerning for example distribution aspects and goal conflicts.

The second section includes studies on accounting and finance. There will be a focus on understanding and explaining the flow of resources within a firm. The course will also provide an understanding of the underlying factors behind an annual report, studies on how an annual report is structured as well as interpretation of its outcome. In addition, in order to understand how a company can finance its operations, this section includes simple investment assessments.

The third section focusses on firms that develop energy and environmentally efficient services and specifically the structural and organizational issues these firms need to manage. These issues include structures within and between firms, as well as interaction with government authorities, and with society as a whole.

Disposition

The course includes lectures, exercises, a case study to be presented orally and in writing, and a final exam.

Course literature

Kurslitteraturen anslås på kursens hemsida senast fyra veckor innan kursstart.

Examination

- INL2 - Written and oral presentation, 1.5 credits, grading scale: P, F
- TEN2 - Examination, 2.5 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN2 - Exercises, 1.5 credits, grading scale: P, F
- ÖVN3 - Exercises, 2.0 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.