

Environmental and Resource Use Challenges

Single subject and programme course

7.5 credits

Environmental and Resource Use Challenges

746A61

Valid from: 2010 Autumn semester

Determined by

The Quality Board at the Faculty of Arts
and Sciences

Date determined

2010-09-24

Main field of study

Environmental Science

Course level

Second cycle

Advancement level

A1N

Course offered for

- Master's Programme in Science for Sustainable Development

Entry requirements

- Bachelor's degree equivalent to a Swedish Kandidatexamen in one of the following areas:
 - natural sciences,
 - social sciences,
 - humanities or
 - engineering
- 15 ECTS credits passed in environmental sciences, sustainable development, or equivalent.
- English corresponding to the level of English in Swedish upper secondary education (English 6)
Exemption from Swedish

Intended learning outcomes

On completion of the course, the student should be able to:

- account for dynamics, change and challenges based on knowledge and understanding of environmental systems contextualized in history and in future scenarios
- to demonstrate knowledge and understanding of key perspectives in international negotiations regarding water and energy-related issues;
- show how environmental challenges are linked to consumption patterns, resource use and demographic change;
- show knowledge and understanding of key technological developments regarded as possible solutions to certain environmental challenges, but also how technology may be identified as the source of environmental problems;
- communicate environmental issues orally and in text.

Course content

The course provides a basic understanding of environmental changes and challenges induced by energy consumption, industrial processes as well as water and land use. It will also illustrate how knowledge of such changes is formed through advanced modelling and construction of scenarios. The course will provide an elaborated understanding of the driving forces behind, and potential solutions to, environmental changes. Through the multidisciplinary approach, the linkages between the nature and the society will be focused upon from both a natural sciences and social sciences perspective.

Teaching and working methods

Lectures will provide a deeper understanding of topics covered by the course literature and anchor the knowledge base of the subject. Knowledge is further reinforced during seminars and text discussions. Furthermore, laboratory workshops will facilitate an understanding of the role of modelling in environmental science and policy. Homework and independent study are a necessary complement to the course.

Language of tuition: English

Examination

The course is examined through active participation in seminars and through continuous written individual assignments. Detailed information about the examination can be found in the course's study guide.

If the LiU coordinator for students with disabilities has granted a student the right to an adapted examination for a written examination in an examination hall, the student has the right to it. If the coordinator has instead recommended for the student an adapted examination or alternative form of examination, the examiner may grant this if the examiner assesses that it is possible, based on consideration of the course objectives.

Students failing an exam covering either the entire course or part of the course twice are entitled to have a new examiner appointed for the reexamination.

Students who have passed an examination may not retake it in order to improve their grades.

Grades

ECTS, EC

Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus. The course is carried out in such a way that both men's and women's experience and knowledge is made visible and developed.

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Department

Institutionen för Tema