Analytical Frameworks in Sustainability Studies

Single subject and programme course

15 credits

Analytical Frameworks in Sustainability Studies

746A63

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/B)
  (Exemption from Swedish)

Intended learning outcomes
On completion of the course, the student should be able to:
-approach general epistemological and ontological aspects of social theory and natural sciences in the context of sustainable development.
-identify and evaluate the multifaceted roles and contexts of science and technology in the production of knowledge and systems for sustainable development.
-problematize and apply general conceptual discussions and theoretical models that are central in the field of sustainable development, and finding relevant links between technology, science, politics, and sustainable development.
-apply and manage specific technological and scientific tools and strategies as well as economic/policy practices with the help of a number of system theories and process analysis.
-evaluate specific agendas of sustainable development by combining social theory with technological and scientific practices.

Course content

The course is divided into two parts. Each part includes both a theoretical section (Critical Theoretical Reflexivity) and an empirical/methodological section (Applications, Tools, and Strategies for Sustainable Development) that will run parallel to each other. The course is based on contemporary ideas of the roles of science, technology, politics and economics in the production of knowledge and practices for sustainable development. It begins with a general overview of basic aspects of natural and social theories. With this background, the students will analyze how different scientific methods are designed, developed, presented and implemented in different kinds of research and practices, that is, the natural sciences, the social sciences, the humanities and interdisciplinary science. Concretely, a number of theoretical approaches of relevance will be interpreted and discussed in line with different applications, tools and strategies for sustainable development such as commodity chain analysis, cost benefit analysis, measurement and monitoring methodologies, negotiation, indicators, time-geography, labeling, etc. To empirically visualize and evaluate the combination of theoretical models and practical applications, tools and strategies for sustainable development, the students will carry out several exercises and laboratories such as geographic information systems (GIS), road-traffic simulations, monitoring and trend analysis, visualizations, commodity chain analysis, negotiation game, time-geography, passive house visit, and so on.

Teaching and working methods

Lectures, seminars, computer workshops, laboratory exercises, study visits.
Language of instruction: English

Examination

The course is examined through written tasks, lab reports, oral presentations, and active participation in seminars and role playing. 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.

Department

Institutionen för Tema