Environmental and Resource Use Challenges

Environmental and Resource Use Challenges
7.5 credits

Single subject and programme course

746A83

Valid from: 2017 Autumn semester

Determined by	**Main field of study**	
The Quality Board at the Faculty of Arts and Sciences	Environmental Science	
Date determined	**Course level**	**Progressive specialisation**
2017-11-03	Second cycle	A1N
Revised by	**Disciplinary domain**	
	Natural sciences	
Revision date	**Subject group**	
	Environmental Science	
Offered first time	**Offered for the last time**	
Autumn semester 2010	Autumn semester 2023	
Department	**Replaced by**	
Institutionen för Tema	746A61	

Entry requirements

- 180 ECTS credits passed in one of the following subjects including an in-depth academic paper 15 ECTS credits:
  - natural science
  - social science
  - health science
  - humanities
  - engineering that relate to the environment, social economic aspects of sustainable development
- English corresponding to the level of English in Swedish upper secondary education (Engelska 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 special circumstances prevail, and if it is possible with consideration of the nature of the compulsory component, the examiner may decide to replace the compulsory component with another equivalent component.

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 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.

An examiner may also decide that an adapted examination or alternative form of examination if the examiner assessed that special circumstances prevail, and the examiner assesses that it is possible while maintaining the objectives of the course.

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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If special circumstances prevail, the vice-chancellor may in a special decision specify the preconditions for temporary deviations from this course syllabus, and delegate the right to take such decisions.