

# Environmental Science A2

Single subject and programme course

30 credits

Miljövetenskap A2

746G24

Valid from: 2010 Autumn semester

**Determined by**

The Quality Board at the Faculty of Arts  
and Sciences

**Date determined**

2009-12-08

**Revision date**

2014-11-13

## Main field of study

Environmental Science

## Course level

First cycle

## Advancement level

G1F

## Course offered for

- Bachelor´s Programme in Environmental Science

## Entry requirements

The Environmental science of completed course A1.30 credits or the equivalent knowledge.

## Intended learning outcomes

On completion of the course, the student should, at a basic level, be able to

- use systems analysis to study and handle environmental issues, and account for different applications of systems analysis in the environmental work,
- account for how different perspectives lead to different systems analyses, for example different views on the gender issue and on sustainable development,
- write and defend an academic work,
- retrieve primary data and use secondary data, and analyse and interpret data by means of statistical hypothesis tests.
- account for the bases of environmental legislation and environmental economics, and for the preconditions and conditions of community planning.
- design an environmental impact assessment and an environmental management system.
- work in groups and constructively profit from group processes.

## Course content

The course is divided into the following modules:

Systems Analysis, 8 HE credits

This module covers systems analysis as a method for studying and handling environmental issues. The concepts of system, system delimitation, system components and relations are central.

Essay, 7 HE credits

This module addresses how own academic work is planned, carried out and defended. Critical review in the form of opposition is also covered.

Environmental Impact Assessment and Environmental Management Systems, 8 HE credits

This module covers basic principles, methods and tools for assessing the environmental impact of an enterprise and the environmental work conducted by the management of the enterprise. Project work constitutes an essential part of the contents of the module.

Environmental Law and Economics, 3 HE credits

This module covers the basis of environmental law and the structure of the Environmental Code. The preconditions and conditions of community planning and the background and development of environmental legislation and environmental institutions are central. The course addresses basic principles of environmental economics from an economic and a business economic perspective.

Data Collection and Statistics, 4 HE credits

This module covers the bases of data collection and different kinds of freely available databases. The module includes chemical analyses of water and soil. Analysis of data is carried out by means of statistical hypothesis tests. Dynamic models are introduced as an aid to analyse data and predict consequences.

## Teaching and working methods

This course utilises work in tutorial groups, lectures, seminars, workshops, laboratory sessions, field studies and study visits. Additional resource session may be organised in the course on request from the students. The students should also study independently.

## Examination

The course is examined through written examination, individual oral presentations, individual written work, written work carried out in groups, oral group presentations and review of another student's work. All modules are examined with one or several of these methods. A passing grade in the course also requires active participation in tutorial group meetings, seminars, laboratory work and other practical parts.

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

Three-grade scale, U, G, VG

## 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