

**SYLLABUS**

# **Sustainable development 15 credits L0009K**

**Hållbar utveckling**

**Course syllabus admitted: Autumn 2007 Sp 1 - Spring 2009 Sp 4**

**DECISION**

**Course plan approved by the Department of Chemical Engineering  
and Geosciences 2007-02-28.**

# Sustainable development 15 credits L0009K

## Hållbar utveckling

### First cycle, L0009K

| Education level | Grade scale | Subject | Subject group (SCB)   |
|-----------------|-------------|---------|-----------------------|
| First cycle     | U G VG      |         | Environmental Science |

## Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and General eligibility.

## Selection

The selection is based on final school grades or Swedish Scholastic Aptitude Test.

## Examiner

Peter Erixon

## Course Aim

After the course the student should:

- be able to understand, explain and analyse the life supporting and resource generating structures and functions of the ecosystems
- be able to describe and explain reasons for the threats against a sustainable development.
- be able to describe and explain the effects of threats (environmental problems) against a sustainable development.
- be able to describe, explain and compare different measurements that takes/will be taken for a sustainable development
- be able to discuss and give an account for our responsibility towards the future environment and discuss how different aspects of sustainable development (ecological, economic and social) have an influence on each other.

## Contents

Structure and function of the life support systems. Energy flow and pathways of the elements. Biodiversity and the free services of the nature. Terrestrial and aquatic ecology.

Global climate change, The green house effect, Depletion of the ozone layer. Photochemical smog. Acidification. Eutrophication. Distribution of heavy metals and persistent organic substances. The threats against natural resources and biological diversity. The environmental protection activities exerted by authorities and companies. International measurements for a sustainable development.

## Realization

Totally six 2-days meetings from January to May. Basic theory is presented in the form of lectures, discussions, seminars, a project work and a field trip. To facilitate the learning there are more than 100 review questions and 30 questions for discussions available.

## Examination

The ability to reach the course aim is examined in a written exam (grade U,G,VG), seminars (grade U,G), a project work (grade U,G) and participation in a field trip (grade U,G).

Students who have failed an examination on five occasions will not be allowed further resits.

## Remarks

Course level: basic

## Overlap

The course L0009K is equal to KGE603

2500

## Literature. Valid from Autumn 2007 Sp 1

Ekologi, kompendium i miljövård - del 1.KTH. Sthlm 1995

Brandt, Gröndahl. Miljöeffekter, kompendium i miljöskydd del 4. KTH. Sthlm 2000.

Hermele Kenneth, Global utveckling. 2006 (gratis vid kursstart)

Utdrag ur Miljömålen på köpet, de Facto 2006 (gratis vid kursstart)

## Course offered by

Department of Chemical Engineering and Geosciences

## Items/credits

| Number | Type         | Credits | Grade  |
|--------|--------------|---------|--------|
| 0001   | Written exam | 9       | U G VG |
| 0002   | Project work | 3.8     | U G#   |
| 0003   | Seminar      | 1.5     | U G#   |
| 0004   | Excursion    | 0.7     | U G#   |

## Syllabus established

Course plan approved by the Department of Chemical Engineering and Geosciences 2007-02-28.