



HF1007 Environmental Science and Work Science 6.0 credits

Miljö- och arbetsvetenskap

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for HF1007 valid from Spring 2019

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Built Environment, Technology

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

This course is to give knowledge of environment and work science and lawmaking related to these issues.

After completing this course students are to:

- know as much about environmental problems, techniques and lawmaking that he/she can develop products and processes in an environmentally manner and be able to handle trading and contacts with authorities in a technically and ethically correct way
- know as much about work sites that he/she can prevent accidents at work and is able to take active part in efforts to improve the work site
- be able to design production processes taking into consideration man - machine interaction

Course contents

- Environmental effects
- Environment techniques: gas-, air- and water purification
- Comprehensive attitude to environmental work
- How environment matters are prioritized in a business enterprise, live cycle estimates
- The tools available to society to control environment protection, description of environmental consequences
- Treatment of refuse and recycling principles
- Physical environment: load, noise, illumination, chemical health risks etc
- How to design a work site ergonomically
- Mental processes: perception, learning, cognition, memory, categorisation etc

Disposition

The course consists of lectures, exercises, compulsory lab work and exercises, accounts, seminars and self studies.

Specific prerequisites

Knowledge and skills corresponding to the requirements for acceptance to the engineering education

Course literature

"Hållbar utveckling: en introduktion för ingenjörer och andra problemlösare." Fredrik Gröndahl, Magdalena Svanström. Liber

Utvalda kapitel ur boken: "Arbete och teknik på människans villkor", Prevent. (utvalda kapitel kan köpas som pdf av STH)

Examination

- LAB1 - Laboratory Work, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN1 - Exercises, 1.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

Passed written exam

(TEN1, 3 cr. credit rate A-F)

Passed exercises

(ÖVN1, 1,5 cr. credit rate failed, passed)

Passed lab work

(LAB1, 1,5 cr. credit rate failed, passed)

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.