



F6L5025 Technology and Health

7.5 credits

Teknik och hälsa

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 F6L5025 valid from Autumn 2011

Grading scale

Education cycle

Third cycle

Specific prerequisites

Accepted for doctoral studies at KTH or KI.

Language of instruction

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

Intended learning outcomes

The course will provide the student with

- an understanding of the different relations between technology and health,
- a knowledge and an understanding of the concepts ontology, representativity, validity, inference,
- a critical insight into the strengths and weaknesses of theories and methodologies presently applied to the field of technology and health,
- an ability to compare methodological approaches in the field and draw conclusions about their relevance and applicability to his/her own studies.

Course contents

Research leaders and supervisors present and explain the theoretical and methodological basis for their discipline using one or several important pieces of work in the field as examples. The seminar discusses strengths and weaknesses of the approach and considers applications in varying areas. The subjects covered in the seminars are:

- Design, Work Environment, Safety & Health
- Environmental Physiology
- Ergonomics
- Medical Engineering
- Medical Sensors, Signals, and Systems
- Neuronic Engineering
- Structural Biotechnology
- Technology and Quality in Health Care Systems

Disposition

A series of half-day seminars discussing the different research areas of Technology and Health.

Course literature

Literature, representing each research area at a study load of one day (50 pages) per subject, provided in advance of seminars.

Examination

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.

1. Participation in seminars; inability to attend is compensated with an extra written assignment.

2. Written report of at least 15 pages (A4, font 12) giving a theoretical overview of all the different areas researched at the School and a critical application of theories and models to the student's own research.

Other requirements for final grade

Fulfilled requirements as given above.

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.