



FME3505 The Epistemology of Engineering, Science and Innovation 2.0 credits

The Epistemology of Engineering, Science and Innovation

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 FME3505 valid from Spring 2010

Grading scale

Education cycle

Third cycle

Specific prerequisites

Registered as PhD candidate. Also non ITM-school candidates are welcome if their home institutions/schools pay the workshop fees.

Language of instruction

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

Intended learning outcomes

After the course the candidate is assumed to

- grasp the epistemological basics of the artificial world (engineering and industry)
- grasp the basics of science based and non-science based knowledge formation and innovation processes in industry and technology
- have a basic understanding of the role of humanities and social science for engineers and scientists
- be familiar with a selection of industrial cases illustrating core engineering and industrial problems of our time.

Course contents

The course is organized around a 24 hour workshop (lunch to lunch).

Before the workshop the participants read 2-3 distributed texts and prepare a poster on their own PhD research.

The workshop contains 6 – 8 lectures/presentations/discussion seminars on the course topic plus a poster session where the participants present their projects.

After the workshop the candidates are assumed to deliver a paper (2-4 pages) containing a reflection on the content of the workshop with special emphasis on its relevance for their PhD project.

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.

Other requirements for final grade

2-3 published journal papers. (Some variation between years depending on the lecture program on the workshop)

- active participation at workshop
- presentation of poster on PhD project
- reflection paper on 2-4 pages as described 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.