FAK3133 Technology and Ethics 7.5 credits

Teknik och etik

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

Establishment

Course syllabus for FAK3133 valid from Autumn 2019

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

The course is given for PhD students.

Language of instruction

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

Intended learning outcomes

On completion of the course, the student should

- be able to discuss and compare important ethical theories,

- be able to discuss and analyse, in writing and orally, ethical problems that may arise in engineering work,

- within some engineering or technological field, in a more advanced way be able to analyse ethical problems,

- be able to apply ethical theory and analysis in practical engineering or technological activities.

Course contents

Our point of departure will be practical ethical problems. These will vary each time the course is given but classical examples include conflicts between safety and economy or function, environmental effects of technology, conflicts between the engineerâ€™s professionalism and his/her loyalty to the employer, work with morally dubious technologies, insider problems and industrial espionage, integrity issues related to IT, etc. In order to analyse these issues we will use tools from moral philosophy (ethics). We will acquaint ourselves with important theories from moral philosophy such as utilitarianism and deontological ethics, as well as with useful notions, e.g., moral dilemmas.

An important part of this course is an individually written essay under supervision. This work amounts to a specialisation in an ethical problem that can be selected in accordance with the studentâ€™s previous experiences and studies. The main aim of this work is the analysis, from an ethical perspective, of technology relevant to the studentâ€™s studies. In order to be able to apply the ethical theories and the tools from the course, substantial familiarity with the relevant technical aspects is required.

Course literature

- Main course literature (book) will be established no later than four weeks before start of the course.

- List of other literature (articles) will be posted on the course web page at the start of the course.

Examination

- DEL1 - Attendance, 1.5 credits, grading scale: P, F
- INL1 - Homework, 4.0 credits, grading scale: P, F
- TEN1 - Exam, 2.0 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.

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

DEL1 - Participation and preparatory assignments, 1.5 credits
INL1 - Home assignment, 4.0 credits
TEN1 - Exam, 2,0 credits

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.