



FMF3034 Introduction to Research Studies in Machine Design 7.5 credits

Introduktion till forskarutbildning i maskinkonstruktion

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

Establishment

Course syllabus for FMF3034 valid from Spring 2022

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

The course is open for PhD students in Machine Design. If seats are available, PhD students from other programs at the ITM school can be admitted.

Language of instruction

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

Intended learning outcomes

After completion of the course the PhD students shall be able to:

- describe objectives, guidelines, routines, and processes for PhD studies at KTH and, in particular, at the PhD program in Machine Design,
- develop an individual research plan for their dissertation project,
- present their research in oral presentations and writing,
- describe the different types of research that are performed at Machine Design, as well as the different scientific methods that are used,
- make critical evaluations in the design and execution of scientific studies,
- describe how the scientific publication system works,
- examine and review journal articles and PhD theses in the student's research area,
- make critical evaluations in the writing of scientific journal articles,
- assess frequently occurring problems related to research ethics,
- analyze their individual research with respect to different aspects of sustainability.

Course contents

The course is an introduction to PhD students in Machine Design at KTH Royal Institute of Technology. The course presents relevant objectives, guidelines, routines, and processes at the PhD program in Machine Design and at KTH, in order to clarify important roles and responsibilities of PhD students and supervisors. Moreover, the course aims at providing the PhD students with an orientation in the different types of research performed at the department of Machine Design and give them basic insights into the different scientific perspectives and research methods that are used. Finally, the course offers possibilities to present and discuss the students' own dissertation work, practice scientific writing and reviewing, as well as critically reflect upon questions related to theory of science, sustainability, and research ethics.

Examination

- INL1 - Hand in work, 7.5 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.

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

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.