MF130X Degree Project in Machine Design, First Cycle 15.0 credits

Examensarbete inom maskinkonstruktion, grundnivå

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

Establishment

Course syllabus for MF130X valid from Spring 2016

Grading scale

P, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Requirements established by the engineering programme, for starting a degree project. These requirements are found in the programme syllabus.

Language of instruction

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

Intended learning outcomes

According to KTH's established criteria to pass a degree project for a Bachelor's degree, the student should be able to:

1. demonstrate knowledge of the chosen topic's disciplinary foundation and proven experience, some insight into current research and development, as well as in-depth knowledge of methodology in some part of the subject area

2. critically search, collect and use relevant information, and identify one's need for further knowledge

3. formulate, assess and handle problems and critically discuss phenomena, issues and situations

4. plan and with applicable methods carry out tasks within given time frames

5. orally and in writing, in dialogue with different groups present and discuss information, problems and solutions

6. make judgements considering relevant scientific, social and ethical aspects

7. show the skills required to work independently, within some part of the field of technology

Course contents

Project assignment that is carried out individually, but is supervised and communicated in groups. Initially, practical assignments and laboratory sessions in groups of 2-3 students are carried out.

Course literature

Course binder

Examination

- XUPP - Thesis Project, 15.0 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.

Other requirements for final grade

KTH's established criteria to pass degree project t for Bachelor's degree apply:

A literature study has been complete, including a description of applicable methods within the subject area and an orientation in current research and development. The selected method is explained and based on science or proven experience. Relevant knowledge from previous courses is adequately used.

The task of the degree project is largely handled autonomously. Relevant databases and search tools are used. Relevant literature and knowledge are incorporated in the degree project. The need for further knowledge is discussed.

The degree project contains a clear problem formulation and a progressive handling of it. Relevant phenomena, issues and situations connected to the work are critically discussed. Adequate judgements are made, regarding the research question(s) of the degree project.

The project plan was followed. The task is carried out within the agreed time and with the methodology agreed upon. Any changes to the plan or the have been agreed, between student and supervisor.

The report is well organized and well-written, in a coherent language. The citations are relevant, phrased in the student's own wording, and well integrated. The oral presentation and the review, as well as the communication during the work, demonstrate the ability to present and sensitively discuss the work and its conclusions with different parties, such as employers, supervisors, teachers, researchers and students.

The degree project demonstrates judgement abilities, for example to explain, justify, criticize and recommend. Relevant topic-specific assessments based on science or proven experience have been made in the degree project. The degree project reflects on social and ethical aspects, unless this is shown to be irrelevant.

The student familiarizes him/herself with the task and demonstrates the ability to be a part of the working environment where the study was performed. The student shows ability to test and evaluate information in discussions of the task. The student shows initiative and is open for supervision and criticism. The degree project is carried out largely independently.

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.