MF135X Degree Project in Innovation and Product Development Processes, first cycle 15.0 credits

Examensarbete inom Innovations-och produktutvecklingsprocesser, grundnivå

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

Establishment

The official course syllabus is valid from the spring semester 2027 as decided by the Faculty Board decision HS-2025-0013. Date of decision: 2025-10-08

Grading scale

P, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Completed courses worth at least 120 credits within the civil engineering program

Intended learning outcomes

Based on KTH's established goals for bachelor's degree theses, students should be able to:

1. demonstrate knowledge of the scientific basis and applicable methods of the chosen subject area, orientation in current research and development work, and demonstrate in-depth knowledge in some part of the subject area
2. demonstrate the ability to critically search for, collect, and use relevant information, and identify their need for further knowledge
3. demonstrate the ability to formulate, assess, and handle problems and critically discuss phenomena, issues, and situations
4. demonstrate the ability to plan and, using applicable methods, carry out tasks within given time frames
5. demonstrate the ability to present and discuss information, problems, and solutions orally and in writing in dialogue with different groups
6. demonstrate the ability to make assessments with regard to relevant scientific, societal, and ethical aspects
7. demonstrate the skills required to work independently in any part of the main field of technology

Course contents

The course deepens knowledge of product development and design processes by studying and analyzing how companies or other organizations work with product development or design projects.
A theoretical deepening of the subject is achieved by reading literature and conducting an interview study in one or more organizations. The course is conducted in project form, which involves both independent and collaborative work.
The starting point is the student's own interest in examining a particular aspect in greater detail, and the final product of the course is a scientifically based essay that meets academic standards of execution and quality.

Examination

- XUPP - Degree 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

The criteria established by KTH for an approved bachelor's thesis are:

A literature study has been conducted and includes a description of applicable methods within the subject area and an orientation to current research and development work. The chosen method is justified and based on science or proven experience. Relevant knowledge from the courses in the program is used in an appropriate manner.

The thesis assignment is handled largely independently. Well-chosen databases and search tools are used. Relevant literature and knowledge are integrated into the thesis. The need for further knowledge is discussed.

The thesis contains a clear problem formulation and a progression in dealing with it. A critical discussion is conducted on relevant phenomena, issues, and situations related to the work. Adequate assessments related to the thesis's question(s) are carried out.

The work plan developed at the beginning of the thesis has been followed. The work has been carried out within the agreed time frame and using the agreed methodology. Any changes to the plan or the work have been agreed between the student and the supervisor.
The report is well-organized, well-written, and coherent. The summaries of the sources are relevant, independently formulated, and well-integrated. Both the oral presentation and opposition, as well as communication during the course of the work, demonstrate the ability to present and discuss the work with different parties, e.g., clients, supervisors, teachers, researchers, and students.

The thesis demonstrates assessment skills, such as the ability to explain, justify, criticize, and recommend. Relevant subject-specific assessments based on scientific grounds or proven experience have been made in the thesis. The thesis includes reflection on social and ethical aspects, unless these have been deemed irrelevant.

The student familiarises themselves thoroughly with the task and demonstrates an ability to participate in the prevailing work culture where the task is to be performed. The student demonstrates an ability to test and evaluate information in discussions about the task. The student demonstrates initiative and is open to guidance and criticism. The thesis is largely carried out 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.

Additional regulations

Ethical approach

- In group work, everyone in the group is responsible for the group's work.
- During examinations, each student must honestly report any help received and sources used.

- During oral examinations, each student must be able to account for the entire assignment and the entire solution.