



HM1015 Integrated Product Development, Project Course 15.0 credits

Integrerad produktutveckling, projektkurs

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

Establishment

Course syllabus for HM1015 valid from Autumn 2012

Grading scale

A, B, C, D, E, FX, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Proficiency HM1018/6S3403 Innovation and design methodology and HM1010/6S2413 Design elements.

Also HM1011/6S2414 the ergonomics of product development as well as either of the HM1017/6S3402 computer-based design tools I or HM1019/6S3404 computer-based design tools II is recommended.

Language of instruction

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

Intended learning outcomes

The course's overall objective is to give students an practice in reflective industrial product development, carried out under the group-oriented forms of collusion. Through a parallel processing of technical product development, problem solving, project methodology and group dynamics pursued a holistic perspective on the development process.

After the course, students will be able to:

- Select and apply support methods in product development work
- Develop their own, and the organizations working methods in product development and propose suggestions for a more efficient work/working method
- Develop and implement a plan for product development projects
- Identify and evaluate their own behavior in working groups and relate this to the Working Group's dynamics
- Identify and apply relevant knowledge and collect information in order to solve product development problems
- Identify, prioritize and implement relevant design parameters for product development work, such as: customer and user viewpoint, legal requirements, environmental impact and production aspects
- In a clear and persuasive way present different problems and solutions to these. The methods for presentation should be oral, written and using appropriate physical models
- To identify and apply different approaches and standpoints with regard to ethnicity, diversity, ethics, gender, mm
- Identify and take into account the errors and risks linked to technical and organizational problems

Course contents

Project course in integrated product development includes an industrial development projects, lectures, discussions, and exercises for the two reading periods. Examples of areas to be addressed are: customer and user viewpoint, the market's wishes, team work, project planning, project management, environmental product development, concept generation, valuation, support methods in product development, product design, materials selection and processes and presentation techniques.

Course literature

Ullman, David G., The Mechanical Design Process, McGraw Hill

Utdelat material

Examination

- PRO1 - Project, 9.0 credits, grading scale: P, F
- RED1 - Account, 6.0 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

Participation in activities of course is mandatory for approved.

Approved part accounting (RED1; 6 ECTS credits), P/F grading scale

Approved projects (PRO1; 9 ECTS credits), P/F grading scale

Criteria for final grade are based on examination and is announced at the start of the course.

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.