



MG1003 Product Realization 1

12.0 credits

Produktframtagning 1

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

Establishment

Course syllabus for MG1003 valid from Spring 2009

Grading scale

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

Education cycle

First cycle

Main field of study

Mechanical Engineering, Technology

Specific prerequisites

Language of instruction

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

Intended learning outcomes

The course gives participants a first glance in how an industrial product realization process should be carried out for an attractive product to the customer

After the course, the participants will:

have knowledge about common methods and supporting tools used in product realization

- be able to formulate and interpret requirement specifications in product realization
- have knowledge about the most common function carriers (technical principles which fulfil functions)
- be able to choose standard components and common design materials to those problems treated in the course.
- be able measure a simple machine element
- be able to choose among the the most common manufacturing methods
- be able to propose a simple manufacturing system
- be able to carryout a simple “detail planning” of a production system, (scope, capacity, bottlenecks, scheduling, routing, leadtime...)
- be able to carryout simpler production flow simulation.
- be familiarised with collaborative work around a technical problem solving in an engineering setting.
- be able to present result from the project tasks in a written and oral presentations.

Course contents

The course content is task oriented. The course raises issues related to product development and production which emanate when an industrial company takes an order to develop and produce a specific product. For comprehensivness, the course shows the most common decisions a production unit faces in introducing an upcoming production start.

The course shows how these activities can be taken to collaborate and then create prerequisites to offer the customers an attractive product that fulfills the desired properties, with cutting edge technology, economic benefit and environment friendly .

The teaching is carried out through studying relevant activities related to the different aspects of a fictitious company. The lectures make use of presentations of activities with accompanying exercises, in which the participants will come up with the solution by themselves. Assignments can be home taken. Lab exercises provide hands on demonstrations of industrial solutions.

Course literature

Will be decided later.

Examination

- INL1 - Assignment, 1.5 credits, grading scale: P, F

- INL2 - Assignment, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 6.0 credits, grading scale: A, B, C, D, E, FX, F
- INL3 - Assignment, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 1.5 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.

Other requirements for final grade

Seminar reports .(INL1; 1,5 credits)
(INL2; 1,5 credits), (INL3; 1,5 credits)
Examination. (TEN1; 6 credits)
Laborationer (LAB1; 1,5 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.