



MG2023 Effective Production

9.0 credits

Effektiv produktion

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

Establishment

Course syllabus for MG2023 valid from Autumn 2007

Grading scale

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

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

4G1634 Manufacturing Engineering alternatively 4M1320 Manufacturing Technology..

Language of instruction

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

Intended learning outcomes

To provide knowledge of modern production and to show how it is possible to make it more efficient by optimising individual manufacturing processes, taking design, choice of process and economy into account, for optimising the economy of the total production line.

Course contents

A major part of this course consists of industrial cases, where teams of students work with actual problems in a manufacturing company, applying knowledge gained during the theoretical part of the course, including project management. Here the goal is to provide insight and skill in how to plan a project and to give knowledge in production analysis and judgements. The results from the case studies are presented in a technical report. In addition, a public presentation will be held with the participation of industrial representatives and academic staff..

Keywords: Product planning, Product development, New manufacturing technologies, Process simulation, Process control, Economical planning, Production planning, Production analysis, Principal planning, Process supervision, Project planning.

Course literature

Efficient Engineering. Compendium.

Notes from guest lectures.

Examination

- SEM1 - Seminars, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- PRO1 - Project, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, 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

Project work (PRO1; 3 credits)

Seminar reports (SEM1; 3 credits) and Examination (TEN1; 3 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.