



II1300 Engineering Skills 7.5 credits

Ingenjörsmetodik

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

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for II1300 valid from Spring 2019

Grading scale

P, F

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Completed upper secondary education including documented proficiency in Swedish corresponding to Swedish B and English corresponding to English A. For students who received/will receive their final school grades after 31 December 2009, there is an additional entry requirement for mathematics as follows: documented proficiency in mathematics corresponding to Mathematics A. And the specific requirements of mathematics, physics and chemistry corresponding to Mathematics D, Physics B and Chemistry A.

Language of instruction

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

Intended learning outcomes

The overall aim is to provide knowledge of engineering practices and to provide basic skills in using different engineering tools, with emphasis on project methodology, presentation skills and computer as a working tool.

This means that the student after the course is to:

- describe and compare different types of development / project processes.
- be able to participate in, and in a structured manner, implement a simple project in groups of maximum 8 students.
- for simple problems apply important tools and methods that support the selected development process.
- reflect on the completed project from some given aspects.
- training in report writing.
- be able to apply methods for oral presentation.
- be able to create a simple website to present the results and share information.
- be able to make a study plan according to a selected personal model.
- be able to reflect on their future profession from different aspects.
- be able to specify some perspective on "sustainable development" that is relevant to an engineer.
- be able to identify some any ethical / moral aspect that is relevant to an engineer.
- be able to reflect on group dynamic processes in a small project group.
- account for education degree objectives and link them to this course and the education

Course contents

Professional role as an engineer

- Interviewing an engineer

Working in projects

- Project methodology
- Group Dynamics
- Project tools
- Project management

Presentations and Information

- Information
- Report writing
- Oral Presentation Skills
- Computer-based presentation tool
- Web-publishing

Using the computer as a tool

- Word processing and spreadsheet programs
- Presentation and ritprograml website to present the results and share information.

Disposition

A large extent of time is dedicated for practical project work in teams of 5-8 students.

Course literature

Sven Eklund: Arbeta i projekt, - individen, gruppen, ledaren
Fjärde upplagan, förlag Studentlitteratur, ISBN 978-91-44-07275-3

Equipment

A laptop with wireless connectivity to computer networks.

Examination

- INL1 - Assignments, 4.5 credits, grading scale: P, F
- PRO1 - Project, 3.0 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.

PRO1: Project work
INL1: Assignments

Other requirements for final grade

- Active and contributing work in a team.
- Active participation in seminars and presentations.
- Submission of assignments given.
- In addition, see specification for specific course game

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.