



Course syllabus

Faculty of Technology

Department of Mechanical Engineering

4MT316 Vetenskapsmetodik och planering, 7,5 högskolepoäng

Scientific Methodology and Planning, 7.5 credits

Main field of study

Mechanical Engineering

Subject Group

Mechanical Engineering

Level of classification

Second Level

Progression

A1N

Date of Ratification

Approved by Faculty of Technology 2017-05-22

The course syllabus is valid from spring semester 2018

Prerequisites

English B. Bachelor of Science within technology.

Objectives

After this course students should be able to:

- Explain basic scientific concepts
- Formulate aim and scope of projects within research and development with regard to social and ethical aspects
- Present and motivate choices of research methods
- Perform a structured literature search
- Give an account of previous research of relevance for a specific project
- Plan research/development projects
- Present results orally
- Write technical scientific texts

Content

The course consists of the following parts:

- Theory of science and research
- Planning of research/development projects
- Literature search
- The process of writing academic/technical reports
- Exercises in oral presentation techniques

Type of Instruction

The teaching consists of lectures, exercises and seminars. Some elements are compulsory. The extent of the compulsory elements is announced by the examiner at the start of the course.

Examination

The course is assessed with the grades A, B, C, D, E, Fx or F.

Examination is done through written and oral reports. For students who have not been approved at the regular exam, a new examination will be held in close proximity to the regular exam.

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

The final grade is a weighted average of assessment methods.

Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

Credit Overlap

The course cannot be included in a degree along with the following courses of which the content fully, or partly, corresponds to the content of this course: 4BY063, 7,5 credits

Other

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

Required Reading and Additional Study Material

Required reading

Literature is provided by the department

Academic papers and theses - to write and present and to act as an opponent, Maria Björklund & Ulf Paulsson, 2014. Studentlitteratur, Lund. Latest Edition. 152 pages.

Reference Literature

The Student's Guide to Writing -Spelling, Punctuation and Grammar, John Peck & Martin Coyle, 3rd ed, 2012. 157 pages.