



Course syllabus

Faculty of Technology

Department of Mechanical Engineering

2MT16E Maskinteknik, examensarbete, 15 högskolepoäng

Mechanical Engineering, Degree Project, 15 credits

Subject Group

Mechanical Engineering

Level of classification

First Level

Progression

GXX

Date of Ratification

Approved by Faculty of Technology 2018-04-16

The course syllabus is valid from spring semester 2019

Prerequisites

120 credits within the programme Mechanical Engineering or equivalent.

Objectives

The student should be able to:

- demonstrate the ability to evaluate, critically review and deepen the knowledge gained within the Mechanical Engineering and Management engineering field,
- demonstrate ability to define and manage research problems within the chosen field of engineering,
- demonstrate the ability to plan and implement a larger task within given timeframes,
- demonstrate the ability to search, use and critically review scientific sources,
- demonstrate the ability to analyze and evaluate the results of the project work in relation to the knowledge basis and proven experience of the engineering field,
- demonstrate the ability to generate a written scientific technical report,
- demonstrate the ability to perform an oral presentation of the work and defend it, as well as
- demonstrate the ability to perform a critical and systematic opposition on a degree project in the same field of engineering.

Content

The course comprises the following elements:

- problem formulation,
- scientific literature search,
- evaluation and critical interpretation of results and information,
- scientific technical report writing,
- oral presentation,
- opposition, and
- independent engineering work involving theoretical and/or experimental work

Type of Instruction

The teaching consists of independent work, individually or in groups of up to 2 persons, with the support of lectures, supervision and compulsory seminars. For group assignments, the student should report on individual efforts.

The departments supervisor's efforts are limited and take place during the course's regular semester. Exceptions may be granted by the department.

Participation at seminars, presentations, and oppositions is mandatory. Mandatory meetings are shown in the schedule.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

The course is assessed through completed project planning (1 credit U/G), opposition on another degree project (1 credit U/G), oral presentation and defense of the work (1 credit U/G), and a written scientific report (12 credit U/G/VG).

All four parts must be approved to be approved in the course. The final grade of the course is obtained when all the moments are approved.

In which language (Swedish or English) the degree project is presented (oral and written) is determined by the examiner in collaboration with the supervisor.

The thesis will be completed within two years from the start of the course. If some or all of the moments are not completed within two years, the examiner must again approve the problem statement/focus on the degree project.

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.

Other

Certain parts of the course may result in costs incurred by the course participant. Course participants are advised to complete the degree project in cooperation with industrial actors. The work shall be published in digital form on the University Library website.

Required Reading and Additional Study Material

Required reading

Required reading is selected based on the chosen problem area and in consultation with the supervisor.

Reference Literature

Björklund, Maria & Paulsson Ulf (latest edition). Seminarieboken Att skriva, presentera och använda Studentlitteratur. Latest edition p. 147

och opponera. Studentlitteratur. Latest edition, p. 147.

Patel, Runa; Davidson, Bo (2011) Forskningsmetodikens grunder. Att planera, genomföra och rapportera en undersökning. Studentlitteratur AB, latest edition, p. 149.

Paulsson, Ulf & Björklund Maria (2003). Seminarieboken. Lund: Studentlitteratur AB, latest edition, p. 138.

Schött, Kristina; Hållsten, Stina; Strand, Hans; Moberg, Bodil. (2007) Studentens skrivhandbok. Liber AB. Latest edition, p. 176.

Trost, Jan (2002). Att vara opponent. Lund: Studentlitteratur AB. Latest edition, p. 85.

Scientific reference literature is based on selected problem area.