



Course syllabus

Faculty of Technology
Department of Mechanical Engineering

2MT030 Livscykelkostnadsanalys, 7,5 högskolepoäng
Life Cycle Cost Analysis, 7.5 credits

Main field of study

Mechanical Engineering

Subject Group

Mechanical Engineering

Level of classification

First Level

Progression

G2F

Date of Ratification

Approved by Faculty of Technology 2014-10-03
The course syllabus is valid from autumn semester 2015

Prerequisites

60 credits in the subject Mechanical Engineering or Business Administration or similar

Objectives

The student can:

- describe the system/product/process life cycle cost (LCC) and identify the activities in each phase,
- be familiar with different ways of categorizing cost including cost breakdown structure (CBS),
- estimate all applicable costs for each of the categories in CBS and for each year in the system life cycle,
- understand and apply Money-Time relationships and equivalence,
- develop and demonstrate the economic analysis and comparison of mutually exclusive design alternatives,
- evaluate feasible alternatives and select a preferred one.

Content

The course consists of the following elements:

- LCC Methodology
- Cost concepts
- Cost estimation techniques
- Money-Time relationships and equivalence
- Multiple criteria decision making (MCDM)

Type of Instruction

Teaching consists of lectures, group-work, laboratory work, submitted assignments, seminars and case studies (projects).

Examination

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

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 students' performance can be evaluated through assignments, small written exam (s), seminars, written reports of project work (case studies), presentation and opposition and written and oral exam of the compulsory work.

Course Evaluation

A course evaluation will be carried out and compiled after the course is completed. The compilation will be presented to the current board as well as to the students and filed.

Credit Overlap

This course cannot be part of a degree in combination with another course in which the content fully or partly correspond to the content of this course: The course overlaps about 70% with SEC922 and SE9953. 2MT009 Life Cycle Cost Analysis, 7,5 hec.

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

Wicks, E., J Luxhoj & W. Sullivan, *Engineering Economy*, Pearson Education, latest edition. 500 pages.

Relevant articles