



Course syllabus

Faculty of Technology

Department of Mechanical Engineering

2SE014 Kostnadsanalys, 7,5 högskolepoäng

Cost Analysis, 7.5 credits

Main field of study

Total Quality Maintenance

Subject Group

Industrial Engineering and Management

Level of classification

First Level

Progression

G2F

Date of Ratification

Approved 2009-11-16

Revised 2014-09-23 by Faculty of Technology. Review of objectives.

The course syllabus is valid from autumn semester 2015

Prerequisites

Basic eligibility and Mathematics/Mathematical Statistics comparable to Computational Methods for Technical Applications (1MA112), 15 Credits, Business Driven Quality Maintenance, 7,5 Credits and additional 37,5 Credits in the subject Total Quality Maintenance.

Objectives

After completing the course the student is expected to be able to:

- account for definitions, concepts, methods and tools of LCC/LCP in an industrial context, as well as their applications.
- exemplify application areas for definitions, concepts, methods and tools of LCC/LCP.
- understand how LCC/LCP can be used as decision making tool/method with regards (in complement) to technical/engineering performance.
- critically discuss choice of theory and method and the effects of the choice on the results

Content

The course comprises the following elements:

- Introduction to the "time value of money"
- LCC components
- LCC models
- LCC as a decision making tool

- LCC applications in industry

Type of Instruction

The teaching consists of lectures, group work, seminars, assignments and a case study.

Examination

The course is assessed with the grades U,3,4 or 5.

The examination is based on submitted reports and oral or written presentation of compulsory assignments.

In order to receive the grade Pass students must demonstrate knowledge that corresponds to the expected learning outcome.

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 by the coordinating department.

Other

Some elements of the course may entail costs defrayed by the course participant.

The course language is English if international students attend the course.

Required Reading and Additional Study Material

Required reading

Benjamin S. Blanchard, *Logistics engineering and management*, Prentice hall, latest edition. 526 pages.

Current scientific articles in addition

Recommended literature

Hagberg, Leo & Henriksson, Tomas (1996). *Profitable maintenance: 8 steps to assured production. 4, The LCP methodology*. Stockholm: Mentor Communications

William G. Sullivan, Elin M. Wicks and James T. Luxhoj, *Engineering economy*, Pearson Education, latest edition. 450 pages.

Wolter J. Fabrycky and Benjamin S. Blanchard (1991) *Life-Cycle Cost and Economic Analysis.*, Prentice Hall