



Course syllabus

Faculty Board of Science and Engineering
School of Engineering

1SE005 Förbättringsprocesser och informationssystemdesign, 7,5
högskolepoäng

Improvement Processes and Information Systems Design, 7.5 credits

Main field of study

Total Quality Maintenance

Subject Group

Industrial Engineering and Management

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved by Organisational Committee 2009-07-24

The course syllabus is valid from spring semester 2010

Prerequisites

Information systems in Manufacturing Companies 7,5 hp.

Expected learning outcomes

After completing the course the students are expected to be able to

- give an account of the foundations of information systems development
- understand the relation between IT systems development and quality
- understand how possibilities and limitations in the use of an IT system are related to the systems development life cycle
- conduct a requirements/business analysis
- specify a company's needs in connection with IT systems design
- conceptually design IT systems supporting activities in a manufacturing company

Content

The course comprises the following elements:

- Improvement processes with regard to information systems development
- The information systems development life cycle and how

it affects and is affected by activities in a manufacturing company

- Business analysis: aim and methods
- Information systems design: methods, tools and techniques
- Exercises in IT systems design with the emphasis on technology environments

Type of Instruction

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

Examination

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

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

Course Evaluation

When the course has finished, an evaluation is compiled. The results are reported to the students and then archived according to the rules of the school.

Other

Some elements of the course may entail costs that are to be defrayed by the course participant. The course is offered in English if there are international student participants.

Required Reading and Additional Study Material

Required reading

McManus J., Wood-Harper, T. Information systems project management, Methods, Tools and Techniques, Harlow: Financial Times Prentice Hall, 2003. ca 300 p.

For a book on basic OOS/UML, Choose one of the following:

Oestereich, B. Developing software with UML, object-oriented analysis and design in practice. Pearson Education Ltd, 2002. Ca 300 p.

Arlow, J., Neustadt, I. UML and the unified process Practical Object- Oriented analysis and Design, Addison-Wesley, latest edition. Ca 300 p.

Material supplied by the department (in the form of compendiums and references to relevant websites)

Reference literature

Apelkrans M., Åbom C. OOS/UML - En objektorienterad systemutvecklingsmodell, Studentlitteratur, 2001