Linnæus University

Course syllabus

Faculty Board of Science and Engineering
School of Engineering

4MT013 Utveckling av systemarkitektur för komplexa system, 7,5 högskolepoäng

Systems Architecture and Design, 7.5 credits

Main field of study
Mechanical Engineering

Subject Group
Mechanical Engineering

Level of classification
Second Level

Progression
A1F

Date of Ratification
Approved by Organisational Committee 2009-07-24

The course syllabus is valid from spring semester 2010

Prerequisites
English B. Basic eligibility for advanced level and degree in engineering within mechanical engineering, civil engineering, total quality maintenance or bacheor degree in systems development. Completed course in fundamentals of systems development 7,5 hec, or the equivalent.

Expected learning outcomes

After completing the course the student is expected to:

- have gained a more thorough understanding of the development of functional, physical, and operational architecture, as well as an understanding of how to evaluate the above

Content

The course aims to:
Present fundamental methods for developing functional and physical architectures that give shape to the operational architecture. The course provides insights into the analysis and evaluation of architectures, the influence of open architectures, and the use of commercial technologies and standards (COTS). During the course, the students work with a mechatronics project and make use of a system tool in order to rationally create and develop the relations that can be found in a complex system.

Type of Instruction

The teaching consists of lectures, submitted assignments, and exercises.

Information about obligatory course elements will be provided at the beginning of the course.

Examination

The course is assessed with the grades U,3,4 or 5.
The assessment of student performances is based on submitted case studies and written examinations.

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

The course is offered in English if there are international participants. It can also be tailored to fit the needs of students from corporations.
Students who have successfully completed the course will obtain a study certificate on demand.

Required Reading and Additional Study Material

Required reading

Buede, Dennis M, *The Engineering Design of Systems, 2:nd ed*, Wiley Inter Science USA, ISBN 0-978-0-470-16402-0. 516 s.

Information on other course literature will be provided at the beginning of the course