EH2020 Industrial Control and Information Systems 7.5 credits

Industriella informations- och styrsystem

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for EH2020 valid from Autumn 2007

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

Upon completion of this course the participants should be able to:

- Describe and explain components of an IT-system.

- Describe and explain different types of IT-systems that organizations utilize for support of their business.
- Choose among and apply existing IT-system modeling languages.
- Create new IT-system modeling languages.
- Describe and explain how organizations can use IT-systems in a rational and cost efficient manner.

Course contents

The course consists of, and is examined by, five assignments with the following preliminary content, the final assignments will be presented at the beginning of the course:

- General modeling – The student should, given a previously well known area, create a modeling language that can be used to describe the area.
- Adaptation of modeling language – The student should, given the entities of a modeling language, identify and describe plausible relations between the entities.
- Views – The student should, given a enterprise architecture framework and a modeling language, identify which entities of the language that is relevant in different parts of the framework.
- Refinement of modeling language – The student should, given entities in a modeling language, describe instances of these entities.
- Enterprise architecture modeling – the student should model the complete IT support for a specific organization.

Lectures will be given in order to introduce the students to the assignments and the topic in general. The assignments will be presented in the seminars and handed in as written reports.

Specific prerequisites

Course literature

Is finally announced at course start. E.g. Lankhorst et al., Enterprise Architecture at Work: Modeling, Communication, and Analysis, Springer, 2005.

Examination

- INL1 - Assignment, 1.5 credits, grading scale: P, F
- INL2 - Assignment, 3.0 credits, grading scale: P, F
- KON1 - Control Test, 1.5 credits, grading scale: P, F
- LAB1 - Laboratory Work, 0.8 credits, grading scale: P, F
- SEM1 - Lecture, 0.7 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

Approved Design Exercises (INL1 + INL2 + INL3 + INL4 + INL5), seminar attendance (SEM1).

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.