EP1200 Introduction to Computing Systems Engineering 6.0 credits

Introduktion till datorsystemteknik

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 EP1200 valid from Spring 2016

Grading scale

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

Education cycle

First cycle

Main field of study

Electrical Engineering

Specific prerequisites

Language of instruction

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

Intended learning outcomes

After the course the students will be able to:

- discuss the fundamental concepts of how to build a modern computer from the ground up

- construct a computing system, by building key components themself

- to use software emulation tool for computer architecture design

Course contents

Architecture, elements and concepts of modern computing systems and how they relate to each other. The content will include:

- computer architecture

- machine language

- assembler and higher level programming languages

- compilers

- operating systems

- virtual machine

Disposition

Both Swedish and English will be used for instruction.

Course literature

Noam Nisan and Shimon Schocken, The Elements Of Computing Systems:

Building a Modern Computer from First Principles

Examination

- LABA - Laboratory, 1.5 credits, grading scale: P, F
- LABB - Laboratory, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, 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.

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.