FIH3601 Statistical Methods in Microelectronics 7.5 credits

Statistiska metoder inom mikroelektroniken

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

Establishment

Course syllabus for FIH3601 valid from Spring 2014

Grading scale

G

Education cycle

Third cycle

Specific prerequisites

An undergraduate course in statistics is required

Knowledge of process technology for semiconductors is recommended

Language of instruction

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

Intended learning outcomes

After the course you should be familiar with statistical methods used in microelectronics, and especially you should be able to perform process control, design experiments and present findings using statistical methods and professional software such as SPSS or R.

Course contents

· Statistical fundamentals

· Use of statistical software (SPSS or R)

· Yield Modeling

· Statistical process control (SPC)

· Design of Experiments (DOE)

· Process modeling

Course literature

G.S May and C.J. Spanos, Fundmentals of semiconductor manufacturing and process control, Wiley 2006, ISBN0-471-78406-0

Examination

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.

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

P/F

Other requirements for final grade

Homework, Labs and an individual Project

The project should be individual and connected to your research. This part of the course can be finished later, in most cases hopefully by producing a scientific publication, where at least one of the statistical methods learnt in the course should be included.

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.