HM2004 Practical Statistics 7.5 credits

Practical Statistics

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

Establishment

Course syllabus for HM2004 valid from Autumn 2008

Grading scale

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

Education cycle

Second cycle

Main field of study

Mathematics

Specific prerequisites

Knowledge of Mathematical Statistics complying with 6E2211 or equal.

Language of instruction

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

Intended learning outcomes

To give the participant knowledge about the possibilities of business or organisational control when using statistics to assess projects and organisational performance including Gauge R&R and using those methods for prediction and for decision support.

Statistics even in it's simplest form can be of great value if it used in a smart way and is combined for instance with regression analysis, orthogonal matrices and Monte Carlo methods. All of which are taught within the block.

Course contents

The block starts with brushing up old knowledge in statistical methods and the theory necessary to understand the block.

Measurements in organisations will be presented together with different methods of data catch and the possible evaluation methods for different kinds of data sets. A large part of the content in the block will be Monte Carlo Analysis using the program @RISK as well as different regression models.

Course literature

Vose, David

Quantitative Risk Analysis

Wiley, 1997 (or later if new edition is issued)

Handouts

Examination

- ÖVN1 - Group Tasks, 4.5 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.

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

Other requirements for final grade

Group tasks as computer-based problem solving using Excel and @RISK. 4,5 cr.
Written examination 3 cr.

Marks:
A-F in accordance with the ordinary system of KTH

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.