HF1004 Mathematics and Statistics 7.5 credits

Matematik 2 med matematisk statistik

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 HF1004 valid from Spring 2012

Grading scale

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

Education cycle

First cycle

Main field of study

Mathematics,Technology

Specific prerequisites

Basic knowledge in calculus and linear algebra corresponding to the courses Mathematics I, HF1901 or HF1903

Language of instruction

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

Intended learning outcomes

To enhance the mathematical skills from Mathematics 1 and thus build sound foundations for further studies in the courses of the program. To give basic knowledges in the fields of mathematical statistics, probability theory, differential equations and complex numbers.

After the course the student should be able to

. use the fundamental concepts of mathematical statistics, probability theory, differential equations and complex numbers.

. write mathematical texts using notations connected to these fundamental concepts.

. set up models expressed in terms of the fundamental concepts.

. use classical methods of problem solving in these fields of mathematics.

Course contents

Complex numbers

Differential equations and their application

The foundations of probability theory

Different probability distributions

Point and interval estimations

Course literature

Matematik för ingenjörer Rodhe, Sollervall ISBN:9789144067964

Kerstin Vännman, Matematisk statistik, ISBN:9789144016900

Examination

- TEN1 - Examination, 3.5 credits, grading scale: A, B, C, D, E, FX, F
- TEN2 - Examination, 4.0 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.

Other requirements for final grade

Written examination (TEN1, 3.5 credits), grading scale A-F

Written examination (TEN2, 4 credits), grading scale A-F

The final grade is based on both requirements. Grading scale A-F.

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.