Syllabus

for course at first level

Probability and Statistics for Teachers
Sannolikhetslära och statistik för lärare

7.5 Higher Education Credits
7.5 ECTS credits

Course code:	MT1011
Valid from:	Autumn 2007
Date of approval:	2006-09-27
Department	Department of Mathematics (incl. Math. Statistics)

Subject	Mathematical Statistics
Specialisation:	G1N - First cycle, has only upper-secondary level entry requirements

Decision

This syllabus has been approved by the Board of the Faculty of Science at Stockholm University on 27 September 2006.

Prerequisites and special admittance requirements

Swedish upper secondary school course Mathematics D, or equivalent.

Course structure

Examination code	Name	Higher Education Credits
S111	Probability and Statistics for Teachers	7.5

Course content

The course covers: The concept of probability. Random variables. Some discrete and continuous distributions i. e. the binomial and the normal distributions. Expected value and variance. Somewhat about the central limit theorem Somewhat about simple statistical metods: estimation and confidence intervals. Presentation of statistical material: mean, median, standard deviation and different types of diagrams. Somewhat about planning of statistical investigation. Intepretation and critical examination of statistical results.

Learning outcomes

It is expected that the student after taking the course will be able to:
* describe basic probability theory and simple statistic methods
* carry out simple statistical analysis of data and interpret the results
* critically judge results and conclusions of statistical experiments presented in media and litterature.

Education

The education consists of lectures, group work, group discussion, exercises and computer exercises. Participation in the computer exercises is compulsory. An examiner may rule that a student is not obliged to participate in certain compulsory education if there are special grounds for this after consultation with the relevant teacher.

Forms of examination

a. Examination for the course is in the following manner: measurement of knowledge takes place through written examination.

b. Grading is carried out according to a 7-point scale related to learning objectives:
A = Excellent
B = Very Good
C = Good
D = Satisfactory
E = Sufficient
Fx = Fail
F = Fail

c. Grading criteria for the course will be distributed at the start of the course.

d. A minimum grade E is required to pass the course, together with pass of computer exrecises.

e. Students who fail to achieve a pass grade in an ordinary examination have the right to take at least further four examinations, as long as the course is given. The term "examination" here is used to denote also other compulsory elements of the course. Students who have achieved a pass grade on an examination may not retake this examination in order to attempt to achieve a higher grade. Students who have failed to reach a pass grade on two occasions have the right to request that a different teacher be appointed to set the grade of the course. A request for such appointment must be sent to the departmental board.

Interim
Students may request that the examination is carried out in accordance with this syllabus even after it has ceased to apply. This right is limited, however, to a maximum of three occasions during a two-year-period after the end of giving the course. A request for such examination must be sent to the departmental board.

Limitations
The course may not be included in a degree within Faculty of Science.

Misc
The course is identical with moment Probability and Statistics for teachers, 5 hp, within Mathematics med didactical aim II, 20 hp (MAU02N) on teachers line. The course is taken as an individual course.

Required reading
Course literature is decided by the departmental board and is described in an appendix to the syllabus.