Department of Mathematics
(incl. Math. Statistics)

Stockholm University

Syllabus

for course at first level

Linear Statistical Models
Linjära statistiska modeller

7.5 Higher Education Credits
7.5 ECTS credits

Course code:	MT5001
Valid from:	Autumn 2007
Date of approval:	2006-06-08
Department	Department of Mathematics (incl. Math. Statistics)
Subject	Mathematical Statistics
Specialisation:	G2F - First cycle, has at least 60 credits in first-cycle course/s as 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

Prerequisites for the course is a course equivalent to Probability Theory II (MT 3001).

Course structure

Examination code	Name	Higher Education Credits
TENT	Linear Statistical Models, Exam	4
LABO	Computer Exercises	3.5

Course content

a. The course covers analysis of continuous data with the help of the general linear model, especially multiple linear regression and analysis of variance, planning of experiments. The content of the course is central for all professional activity with a great amount of statistical content.
b. The course includes the following elements:
i) Theory, 6 hp
ii) Computer Exercises, 1.5 hp

Learning outcomes

It is expected that the student after taking the course will be able to:
* describe the theory of the general linear model
* apply the general linear model on observed data
* carry out data analyses with the help of statistical programs and interpret the result properly
* effect data analyses in groups
*give oral and written presentation of results of data analyses

Education

The education consists of lectures, seminars, project work, approved presentations of project work and computer exercises. Participation in the project work, computer exercises and seminars 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 approved attendance at seminars and presentations of project work.

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 together with the course "Linear Statistical Models" (MS 2190) or similar one.

Misc

The course is a component of the Bachelor's Programme in Mathematics, Bachelor's Programme in Biomathematics, and Bachelor's Programme in Mathematics and Economicsa, and it can also be taken as an individual course.

Required reading

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