Department of Mathematics
(incl. Math. Statistics)

Stockholm University

Syllabus

for course at first level

Categorical Data Analysis
Analys av kategoridata

7.5 Higher Education Credits
7.5 ECTS credits

Course code:	MT5006
Valid from:	Autumn 2007
Date of approval:	2006-09-27
Department	Department of Mathematics (incl. Math. Statistics)
Subject	Mathematical Statistics
Specialisation:	G1F - First cycle, has less than 60 credits in first-cycle course/s as entry requirements

Decision

The course is a component of the Master Program in Biostatistics, and it can also be taken as an individual course.

Prerequisites and special admittance requirements

Prerequisites for the course is a course equivalent to Linear Statistical Models, FC, 7.5 hp.

Course structure

Examination code	Name	Higher Education Credits
TENT	Categorical Data Analysis, exam	4
LABO	Computer Exercises	3.5

Course content

a. The course covers models for categorical data, two way and multi way contingence tables, homogeinity and independence, generalized linear models for categorial data, logistic regression, log linear models for categorial data and diagnostics of models.
b. The course includes the following elements:
i) Theory, 4 hp
ii) Home assignments, 3.5 hp

Learning outcomes

It is expected that the student after taking the course will be able to:
* give an account for the most common models for statistical analysis of categorial data
* identify observation planes and chose appropriate metods of analyses
* use computer programs as tools when statisically analysing categorial data
* present results and discuss possible conclusions of analysis of categorial data
* critically judge wether the results of the analyses are resonable

Education

The education consists of lectures, assignments, and seminars. Participation in the 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 assignments and approved attendance at seminars.

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 "Loglinear statistical models" (MS 3150).

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 Economics, 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.