Syllabus

for course at first level

Mathematics for Economic and Statistical Analysis
Matematik för ekonomisk och statistisk analys

7.5 Higher Education Credits
7.5 ECTS credits

Course code:	MM1005
Valid from:	Autumn 2007
Date of approval:	2007-05-14
Department	Department of Mathematics (incl. Math. Statistics)
Subject	Mathematics
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.

Prerequisites and special admittance requirements

Swedish upper secondary school course Mathematics C, or equivalent.

Course structure

Examination code	Name	Higher Education Credits
F105	Mathematics for economics and statistics	7.5

Course content

The course covers elementary functions, derivative, max and min problems, Taylor's formula and Taylorseries, integrals, functions of several variables, partial derivatives, optimization problems with and without constraints, matrices and determinants.
The contents of the course may be used in modelling in a number of fields, for example economy and statistics.

Learning outcomes

It is expected that the student after taking the course will be able to:
• use basic methods in analysis of one and several variables to solve mathematical and applied problems in, for example, geometry and economy
• solve simple problems about matrices, vectors and determinants

Education

Instruction is given in the form of lectures and exercise sessions.

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 = Insufficient
F = Completely insufficient

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

d. A minimum grade of E is required to pass the course.

e. Students who fail an ordinary examination are entitled to take additional examinations as long as the course is offered. There is no restriction on the number of examinations. The term "examination" here is used to denominate 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.
The course has at least two examinations for each academic year in the years in which instruction is provided. Intervening years include at least one examination.

f. A student who receives the grade Fx will be given an opportunity to make up to grade E by successfully completing some extra task(s) assigned by the examiner, who also decides on the criteria to be fulfilled in order to pass. The completion must take place before the following examination session.

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 Mathematics for the natural sciences MM1001/MA1080, Mathematics for the social sciences MM10012/MA1110, Mathematics I MM2001/MA1200, Mathematics basic course MA1120 or the equivalent.

Misc
The course is a component of the Master Programme in Economics, the Master Programme in Statistics and the Master Programme in Survey methodology and Production of official statistics 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.