

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 2020
Date of approval:	2007-05-14
Changed:	2019-11-20
Department	Department of Mathematics (incl. Math. Statistics)
Main field:	Mathematics/Applied 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, May 14, 2007. Technical revision by Student Services April 25, 2019. The syllabus has been revised by the Board of Science at Stockholm University, January 13, 2020.

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, derivatives, max and min problems, Taylor's formula and Taylor series, 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

Upon completion of the course, students are expected to 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 consists of lectures and exercise sessions.

The course is given in English.

Forms of examination

a. The course is examined as follows: Knowledge assessment takes the form of written examination. The examination is conducted in English.

The examiner can decide on adapted or alternative examination formats for students with disabilities.

b. The course has no mandatory instruction.

c. Grades will be set according to a seven-point scale related to the learning objectives of the course:

A = Excellent

B = Very Good

C = Good

D = Satisfactory

E = Adequate

Fx = Fail, some additional work required

F = Fail, much additional work required

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

d. The grading criteria will be distributed at the beginning of the course.

e. Students who receive a failing grade on a regular examination are allowed to retake the examination as long as the course is still provided. The number of examination opportunities is not limited. Other mandatory course elements are equated with examinations. A student who has received a passing grade on an examination may not retake the examination to attain a higher grade. A student who has failed the same examination twice is entitled to have another examiner appointed, unless there are special reasons to the contrary. Such requests should be made to the department board. Under normal circumstances, the course includes at least three examination opportunities per academic year the course is offered. At least one examination opportunity will be offered during a year when the course is not given.

f. There is no facility to improve the grade Fx to a pass grade in this course.

Interim

Students may request that the examination be conducted in accordance with this course plan even after it has ceased to be valid. However, this may not take place more than three times over a two year period after course instruction has ended. Requests must be made to the departmental board. The provision also applies in the case of revisions to the course plan (and the revisions of the course literature).

Limitations

The course may not be included in examinations in combination with courses Mathematics I (MM2001), Mathematics for the Natural Sciences I (MM2002), Mathematical Methods for Economists (MM3001), Introductory Course in Mathematics (MM1003) or equivalent.

Misc

The course is part of the Master Programme in Economics and the Master Programme in Statistics but can also be read as a separate course.

Required reading

The course literature is decided by the department board and published on the Department of Mathematics's website at least two months before the start of the course.