

# Syllabus

for course at first level

**Mathematical Methods for Economists**  
**Matematiska metoder för ekonomer**

**7.5 Higher Education  
Credits**  
**7.5 ECTS credits**

<b>Course code:</b>	MM3001
<b>Valid from:</b>	Autumn 2019
<b>Date of approval:</b>	2012-10-08
<b>Changed:</b>	2012-10-08
<b>Department</b>	Department of Mathematics (incl. Math. Statistics)
<b>Main field:</b>	Mathematics/Applied Mathematics
<b>Specialisation:</b>	G1F - First cycle, has less than 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 2012-10-08.  
A technical revision by the Student Office 2019-04-25.

## Prerequisites and special admittance requirements

Business administration II, 30 ECTS credits (FE200F), or equivalent.

## Course structure

Examination code	Name	Higher Education Credits
HELA	Mathematical Methods for Economists	7.5

## Course content

The course covers:

- \* functions of one variable
- \* derivatives and integrals
- \* maxima and minima for functions of one variable
- \* functions of multiple variables
- \* maxima and minima for functions of two variables
- \* matrices and determinants
- \* solving of systems of linear equations
- \* geometric series

## Learning outcomes

Upon completion of the course, the student is expected to be able to:

- \* use basic methods of analysis in one or multiple variables to solve mathematical and applied problems in for example geometry and economics.
- \* solve simple problems concerning matrices, vectors and determinants.

## Education

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

## Forms of examination

The course is examined in the following manner: measurement of knowledge takes place through written examination.

b. Grading is carried out according to a 7-point scale:

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. There is no opportunity to make up from an Fx grade to a E grade on this course.

### **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 within a two-year-period after the end of the course offering. A request for such examination must be sent to the departmental board. This provision is also valid in the case of revision of the syllabus.

### **Limitations**

The course may not be included in a degree together with the course Mathematics I (MM2001), Mathematics for the Natural Sciences (MM1001), Mathematics for the Social Sciences (MM1002), Introductory Course in Mathematics (MM1003), Mathematics for Economic and Statistical analysis (MM1005), Mathematical methods (EC1802), Mathematical Economics (FE3623), or equivalent.

### **Misc**

The course may be a part of various programs at Stockholm Business School. 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.