



AH2009 Mathematics for Economic Analysis 7.5 credits

Mathematics for Economic Analysis

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

Course syllabus for AH2009 valid from Autumn 2010

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Mathematics

Specific prerequisites

A completed Bachelor's degree including at least 30 credits in mathematics/Economics and documented proficiency in English B or equivalent (TOEFL, IELTS eg).

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The aim is to make students familiar with the foundations of mathematics for economic analysis.

Learning outcome:

The students should learn how to apply mathematical tools for analysing and interpreting results from the relevant literature. The students should also be able to use its mathematics for formulating their own models and to draw conclusions from such models

Course contents

The content comprises linear algebra, statistics, single and multivariable calculus, static optimization

- Fundamentals of Mathematical Statistics
- Functions of One Variable and Many Variables
- Properties of a Function
- Differentiation
- Derivates in Use
- Single- and Multi-Variable Optimization
- Integration
- Interest Rates and present Values
- Tools for Comparative Statics

Constrained Optimization
Matrix and Vector Algebra

Course literature

K. Sydsaeter, P Hammond: Essential Mathematics for Economic Analysis (2006)

Examination

- TEN1 - Examination, 7.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Other requirements for final grade

Assignments, written exam.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.