



# SF1690 Basic Course in Mathematics 6.0 credits

## Baskurs i matematik

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

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

## Establishment

Course syllabus for SF1690 valid from Autumn 2019

## Grading scale

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

## Education cycle

First cycle

## Main field of study

Technology

## Specific prerequisites

Basic requirements.

## Language of instruction

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

## Intended learning outcomes

After the course the student should be able to

- use concepts, theorems and methods to solve and present solutions to problems within the parts described by the course content,
- read and comprehend mathematical text.

## Course contents

Common mathematical notation; natural numbers, integers, rational numbers, real and complex numbers; manipulation of inequalities; addition, multiplication, the absolute value, monotone functions; Cartesian coordinates, straight lines and quadratic curves; graph of functions; elementary functions; polynomial division and the factor theorem; the trigonometric functions and their inverses, power, exponential and logarithmic functions, absolute value function; vectors, scalar and cross product, projections and linear combination.

## Course literature

The course literature will be announced on the course homepage at least four weeks before the start of the course.

## Examination

- TEN1 - Exam, 6.0 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.

The examiner decides, in consultation with KTH's Coordinator of students with disabilities (Funka), about any customized examination for students with documented, lasting disability. The examiner may allow another form of examination for re-examination of individual students.

## Other requirements for final grade

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.