



# SF1671 Mathematics, Basic course, with Discrete Mathematics 7.5 credits

Matematik, baskurs, med diskret matematik

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

## Establishment

Course syllabus for SF1671 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

Sets, induction and recursion, the binomial theorem, sums, linear recursion, binary relations, number bases, divisibility, greatest common divisor, least common multiple, the Euclidean algorithm; primes, unique factorization, modular arithmetic, functions, cardinality, the trigonometric functions, power, exponential and logarithmic functions, the absolute value function.

## Course literature

Announced no later than 4 weeks before the start of the course on the course web page.

## Examination

- TEN1 - Exam, 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.

The examiner decides, in consultation with KTHs 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.

## 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.