



MG1202 Engineering Mathematics 6.0 credits

Ingenjörsmatematik

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

Establishment

The official course syllabus is valid from the fall semester 2025 in accordance with the decision by the Director of First and Second Cycle Education on ITM School: HS-2025-0757.
Date of decision: 2025-04-15

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

General entry requirements.

Language of instruction

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

Intended learning outcomes

After passing the course, the student should be able to:

1. Calculate basic linear algebra and calculus in one variable
2. Model mechanical problems and solve these mathematically
3. Discuss reasonableness and limitations in mathematical models

For higher grades it is required that the student in addition to the above can:

4. Explain and provide arguments for mathematical problem-solving in industrial applications

Course contents

The student get training in using mathematical concepts and methods – mainly calculus in one variable and linear algebra and apply these on issues in production engineering.

Examination

- KOND - Partial exam, 0 credits, grading scale: P, F
- KONE - Partial exam, 0 credits, grading scale: P, F
- KONF - Partial exam, 0 credits, grading scale: P, F
- TENA - Written 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.

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

The course utilizes continuous examination. During the course three different, optional partial exams will be offered (KOND, KONE KONF). The credit of an approved partial examination will be transferred to the corresponding part of the written examination TENA. Approved KOND, KONE and KONF within one (1) year from participating in the course will result in the grade E for examination TENA.

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.