



SF2718 Mathematics for Chemists 6.0 credits

Matematik för kemister

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

The course syllabus is valid from Spring 2022 according to the school principal's decision: S-2022-0529 Decision date: 2022-02-24

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Mathematics

Specific prerequisites

English B / English 6

Completed basic course SF1626 Calculus in Several Variable and SF1633 Differential Equations I.

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,
- interpret certain classical mathematical models described by the course content and evaluate the relevance, plausibility and accuracy of such models,

in order to gain in-depth knowledge within one or several mathematical areas (especially, linear algebra, analysis and differential equations) with applications in biology, chemistry and chemical engineering.

Course contents

Examples of themes are systems of autonomous differential equations (dynamical systems in continuous time) and iterative models (dynamical systems in discrete time) with applications to modeling of population dynamics and of chemical reactions.

Examination

- TEN1 - Examination, 6.0 credits, grading scale: P, 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 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.