



MH1020 Ceramics 6.0 credits

Keramteknologi

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

Establishment

The official course syllabus is valid from the autumn semester 2026 as decided by the Faculty Board: PA-2026-011. Decision date: 2026-08-26.

Grading scale

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

Education cycle

First cycle

Main field of study

Materials Science, Technology

Specific prerequisites

MH1024 Fundamentals of Materials

Intended learning outcomes

The course is meant as an introduction to processing, structure and properties of ceramic materials.

Course contents

The basics for the processing of both traditional and advanced ceramics; crystal structures of ceramic materials; mechanical properties and fractography; statistical fracture theory; time-dependent fracture; thermal shock; structural ceramics; dielectric ceramics; piezo, pyro- and ferro electric ceramics. Ferrites; ceramics for electro-optical applications; ceramic semiconductors, varistors; superconducting oxides.

Examination

- TEN1 - Written examination, 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.

Transitional regulations

Contact the course coordinator

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.