



MH1020 Ceramics 6.0 credits

Keramteknologi

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 MH1020 valid from Spring 2010

Grading scale

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

Education cycle

First cycle

Main field of study

Materials Science, Technology

Specific prerequisites

MH1014 Fundamentals of Materials

Language of instruction

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

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.

Disposition

Lectures 26 h
Exercises 8 h

Course literature

Will be announced at course start

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.

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.