



# MH2350 Artificial Materials 6.0 credits

## Artificiella material

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 MH2350 valid from Autumn 2007

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Materials Science, Materials Science and Engineering

## Language of instruction

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

## Intended learning outcomes

To provide basic knowledge on the techniques of man-made artificial materials design and methodology, from nano to micrometer scale, for sensors, memory, biocompatible electronics, and applications in IT.

## Course contents

Chemical and solid state techniques to produce thin films, self-assembled systems & patterned structures, of both magnetic and non-magnetic properties.

Nano-lithography using AFM/SPM technologies.

Characterization of physical properties from macro to nanoscale.

Design of novel sensors for power electronics.

Design of novel patterned materials for memory devices, high density Information storage, and bio-electronic applications

## Specific prerequisites

MH1016 Material Physics or equivalent  
(Bachelor degree)

## Course literature

- Compendia
- Hand-outs

## Examination

- PRO1 - Project, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- SEM1 - Seminar, 4.5 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.

## Other requirements for final grade

Seminars (SEM1; 4,5 cr). Projektuppgift (PRO1; ,5cr)

## 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.