KD2150 Inorganic Materials Chemistry 7.5 credits

Oorganisk materialkemi

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

Establishment

Course syllabus for KD2150 valid from Autumn 2007

Grading scale

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

Education cycle

Second cycle

Main field of study

Chemical Science and Engineering, Chemistry and Chemical Engineering

Specific prerequisites

Language of instruction

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

Intended learning outcomes

To give an introduction to the research about new inorganic materials. To describe the most important materials in natural and technical systems. To provide models for the understanding of electrical, magnetic and mechanical properties as well as an introduction to cluster chemistry and the materials of "tomorrow".

Course contents

- Fundamental coordination chemistry
- Determination of solid state structures
- Electrical properties
- Magnetic properties
- The synthesis of materials
- Theoretical models
- Materials for various applications

Course literature

Shackelford, ”Introduction to Materials Science for Engineers, 4th ed”, 1996

Examination

- PRO1 - Project, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 1.5 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.

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

Other requirements for final grade

1. Written exam (4,5 credits)
2. Project work (1,5 credit)
3. Laboratory course (1,5 credit)

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.