CK2020 Advanced Inorganic Chemistry 7.5 credits

Avancerad Oorganisk kemi

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

Establishment

Course syllabus for CK2020 valid from Autumn 2023

Grading scale

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

Education cycle

Second cycle

Main field of study

Chemistry and Chemical Engineering, Chemical Science and Engineering

Specific prerequisites

Bachelor's degree in engineering or in sciences including 75 credits in chemistry or chemical engineering, English B/6.

Language of instruction

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

Intended learning outcomes

Upon completion of the course the student will be able to:

- summarize periodic trends from the elements including electronic structure, bonding, reactivity, and other physical properties, as well as, use that knowledge to determine reaction products.
- evaluate literature on inorganic chemistry
- generate and analyze experimental data in a practical laboratory.

Course contents

Transition metal chemistry
Main group chemistry
Coordination chemistry
Applications of chemistry for renewable energy and the environment
The chemistry of alkali- and alkali-earth metals
F-block chemistry

Examination

- LAB1 - Laboratory work, 1.0 credits, grading scale: P, F
- TEN1 - Oral exam, 6.5 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.

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

Other requirements for final grade

Final examination (TEN1; 6.5 points)

Written exam

Practical laboratory (LAB1; 1.0 point)

The final grade is the same as the grade on the written exam.

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.