FCK3319 Advanced Inorganic Chemistry 15.0 credits

Fördjupad oorganisk kemi

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

Establishment

Course syllabus for FCK3319 valid from Spring 2022

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Eligible for studies at the third-cycle level.

Language of instruction

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

Intended learning outcomes

After completion of the course the doctoral student should have:

- Acquired knowledge regarding the origin of the elements and to the rationale behind the structure of the periodic table
- Obtained detailed knowledge on the effects of electron structure regarding chemical properties and reactivity, as well as typical properties linked to a specific electron configuration
- Gained detailed knowledge on the abundance, distribution and extraction of the elements
- Acquired detailed knowledge on the properties and reactivity of the elements coupled to the underlying reasons
- The ability to relate to and apply obtained knowledge on the own research projects
- The capability to analyze and evaluate their own research in the light of existing knowledge in the field

Course contents

- The origin of the elements
- The electron configuration of the elements and the reasons for periodicity regarding chemical properties
- The abundance, distribution and extraction of the elements
- The periodic table and its underlying principles
- The archetypical element chemistry and their reasons

Examination

- TEN1 - Written exam, 7.5 credits, grading scale: P, F
- TEN2 - Written exam, 7.5 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

Active participation including a written summary of at least 3-4 sections of the periodic table including presentation of the contents for the other course participants.

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.