KD1020 Introductory Chemistry 6.0 credits

Inledande kemi

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

Establishment

Course syllabus for KD1020 valid from Spring 2019

Grading scale

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

Education cycle

First cycle

Main field of study

Chemistry and Chemical Engineering, Technology

Specific prerequisites

Completed upper secondary education including documented proficiency in English corresponding to English A. For students who received/will receive their final school grades after 31 December 2009, there is an additional entry requirement for mathematics as follows: documented proficiency in mathematics corresponding to Mathematics A.

And the specific requirements of mathematics, physics and chemistry corresponding to Mathematics E, Physics B and Chemistry A.

Language of instruction

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

Intended learning outcomes

To give the students

- an overview of the different parts of chemistry and how these are connected
- basic knowledge about the structure and properties of chemical compounds
- ability to perform stoichiometric and thermochemical calculations
- basic skills in laboratory work
- training in reading chemical literature in English.

Course contents

- Chemical equations, stoichiometry, thermochemistry.
- An overview of methods used in modern chemistry e.g. chromatography, spectroscopy, diffraction methods.
- The basic principles of chemistry: the chemical bond, chemical equilibrium, reactivity.
- Laboratory exercises: laboratory safety, synthesis and analysis.

Course literature

Chemistry 3: Introducing Inorganic, Organic and Physical Chemistry Andy Burrows, Andy Parsons, Gareth Price
ISBN: 9780199277896

Examination

- TEN1 - Written exam, 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

Examinaton, TEN1;4,5 credit
Laboratory course, LAB1;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.