



KD1090 Organic Chemistry 1 7.5 credits

Organisk kemi 1

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 KD1090 valid from Autumn 2007

Grading scale

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

Education cycle

First cycle

Main field of study

Chemistry and Chemical Engineering, Technology

Specific prerequisites

Language of instruction

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

Intended learning outcomes

The course will give a general introduction to organic chemistry and provide basic knowledge for further studies in organic chemistry. Emphasis is put on the understanding of chemical principles and basic reaction mechanisms. The laboratory course include laboratory safety and the basics in experimental procedures.

Course contents

- Basic principles in organic chemistry
- Structure and reactivity
- Stereochemistry
- Acidity-basicity
- Molecular orbitals
- Structural analysis
- Substitution, elimination
- Addition to double bonds
- Hydroboration
- Alcohols
- Carbonyl chemistry

The laboratory course covers: organic reactions, extraction, distillation, crystallisation, chromatography, NMR, IR.

Course literature

- Maitland Jones, Jr: Organic Chemistry, 3rd edition, Norton, NY, USA, 2004, ISBN 0-393-92408-4
- Safety compendium
- Laboratory course compendium

Examination

- LAB1 - Laboratory Work, 3.0 credits, grading scale: P, F
- TEN1 - Examination, 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

Written exam (TEN1), 4,5 credits
Completed laboratory course (LAB1), 3 credits

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.