# KD1090 Organic Chemistry 1 7.5 credits

## Organisk kemi 1

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

## 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

- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 3.0 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

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.