FCK3323 General Organic Chemistry 10.0 credits

Allmän organisk kemi

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

Establishment

Course syllabus for FCK3323 valid from Autumn 2022

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Eligible for studies at the third-cycle level.

To be able to profit from the course the graduate student should have taken one of the courses KD2310, KD2390 or CE2385, or should have acquired the equivalent knowledge elsewhere.

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 doctoral student should have the knowledge and ability to:

- explain the fundamental principles of organic reactions with regard to chemical interactions and reactivity
- describe and reflect upon catalytic reactions and their mechanisms
- explain and reflect on how organic reactions can be analyzed in-depth using modern analytical tools and calculations
- analyze chemical reactions and syntheses using the principles of green/sustainable chemistry

Course contents

In this course, the participants are expected to develop a broad understanding of organic chemistry. The course provides a general introduction and basic understanding of various areas relevant for organic chemistry, such as:

- chemical bonding
- chemical biology
- computational chemistry
- catalysis, such as organocatalysis and photoredox catalysis
- green and sustainable chemistry
- medicinal chemistry
- supramolecular chemistry
- X-ray structure analysis

Examination

- DEL1 - Participation, 4.0 credits, grading scale: P, F
- INL1 - Assignments, 6.0 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

Participation in 80% of the lectures/seminar sessions, which includes actively participating in discussions of the scientific material.

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.