F3B5162 Organic and Biochemical Analytical Separations 7.5 credits

Organiska och biokemiska analytiska separationer

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 F3B5162 valid from Spring 2017

Grading scale

undefined

Education cycle

Third cycle

Specific prerequisites

1. Three years of study at the School of Chemistry, Chemical Engineering and Biotechnology, KTH, or corresponding knowledge.
2. The course KD2010 Analytical chemistry (6 credits), or corresponding, should be well learned.

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 modern separation methods and to illustrate how these are applied in different fields of chemistry.

Course contents

The lectures discuss basic principles of chromatography and electrophoresis and give a summary of a few of the most important methods:

- Capillary gas chromatography
- HPLC
- Capillary electrophoresis
- Supercritical fluid chromatography
- Mass spectrometry.

In connection with this, specific instrumental aspects, sample workup methods, optimizing of separations and problem solving, are discussed.

The laboratory course includes a group assignment or minor project, which is often related to an ongoing research project or a relevant industrial project.

Course literature

Quantitative Chemical Analysis, D.C. Harris, 7ed, ISBN 9780716776949.

Examination

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

1. Written or oral examination, 3 credits.
2. Completed laboratory course and written and oral report on project, 4,5 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.