



FKF3260 Characterization Methods for Fibre and Polymer Science 7.5 credits

Karakteriseringsmetoder för Fiber- och polymervetenskap

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 FKF3260 valid from Spring 2010

Grading scale

Education cycle

Third cycle

Specific prerequisites

Basic knowledge in chemistry and polymer science.

Language of instruction

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

Intended learning outcomes

After the course the student should be able to

- explain the principals of different experimental methods and their application to polymer characterization
- select a suitable technique for a given analytical problem
- analyse and interpret data obtained by the different methods
- apply and utilise different characterization techniques in their own research work

Course contents

The course presents the fundamentals of a variety of experimental methods for characterization and evaluation of polymeric materials. The course will (i) give a brief background and explanation about the principals of the experimental methods; (ii) present typical and illustrative data obtained by each method; (iii) give basics of data interpretation; (iv) present common pitfalls, anomalies and artefacts and (v) provide short demonstrations of selected instruments.

The course consists of

- I. lectures (approximately 28 hours)
- II. instrument demonstrations
- III. home assignments
- IV. seminar with oral presentations

Course literature

Lecture material, scientific articles.

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.

- I. Attendance in at least 80 % of the lectures and demonstrations
- II. Approved home assignments

III. Oral presentation

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.