



FCK3107 Polymer Physics including Polyelectrolytes I 6.0 credits

Polymerfysik med polyelektrolyter I

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 FCK3107 valid from Autumn 2020

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Eligible for studies at the third-cycle level but with the further requirement of passed fundamental courses in polymer science.

Language of instruction

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

Intended learning outcomes

After completion of the course the doctoral student should have the knowledge and ability to

- demonstrate for the level of the course adequate acquired knowledge in the specialized topics of the course.
- design, plan and carry out a project to address a scientific problem by experiments and, if necessary, a simulation/modeling study within the frame of the scientific field.
- present and interpret the results of own research on the basis of the fundamental knowledge provided in the course.

Course contents

- An introductory overview of polymer science
- Chain conformations
- Rubber elasticity
- Polymer solutions
- Polyelectrolytes
- Glassy state of polymers
- Semicrystalline polymers

Examination

- TEN1 - Written exam, 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.

In addition to the written exam, individual project tasks are performed and presented.

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.