FKF3270 Introduction to Rheology 3.0 credits

Introduktionskurs i reologi

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

Establishment

Course syllabus for FKF3270 valid from Spring 2014

Grading scale

G

Education cycle

Third cycle

Specific prerequisites

Language of instruction

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

Intended learning outcomes

The aim of the course is to make the student familiar with the basic physics and physical chemistry of rheology. Rheology itself is the science of flow and deformation of matter. The participant should get aware of fundamental theory, experiments and interpretation. Specific emphasize will be given on rheology of polymers and dispersion. Rheology is a science that

bridges natural science, specifically physics and chemistry and chemical and mechanical engineering.

Course contents

- Motivation, daily live, literature, journals

- First principles, physical origin -Simple models: Maxwell, Voigt, Burger, Carreau, Ostwald-de Waele

- Glossary on rheological terms with explanations

- Rheological hardware

- Rheological response of dispersions

- Rheological response of polymers

- Final Exam

Course literature

To be announced. Script will be handed out.

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.

If the course is discontinued, students may request to be examined during the following two academic years.

Other requirements for final grade

The course will be finalized with an oral exam on Friday or and written exam depending on the audience.

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.