KF2290 Polymer Processing 6.0 credits

Polymer Processing

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

Establishment

Course syllabus for KF2290 valid from Autumn 2007

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Specific prerequisites

Basic knowledge in physics, chemistry and general materials 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 know:

- Polymer nomenclature and basic concepts
- Relationship between polymer structure and the kinetics of solidification
- Relationship between repeating unit structure and physical and chemical properties
- Rheological properties of polymers
- Selection of processing methods for different products and polymeric materials
- Principles about problems and opportunities in polymer processing

Course contents

Basic concepts in polymer science and engineering, physical and chemical properties of polymers relevant to polymer processing , solidification of polymers, thermoplastic processing methods, processing of thermosets and rubber materials, brief introduction on process simulations and design of polymer products.

Course literature

Gedde, Ulf W. 2002: Fundamentals of polymer science & engineering and polymer processing.

Examination

- ÖVN1 - Exercises, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, 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

Written examination (TEN1; 4,5 hp)
Home work assignments (Övn1; 1,5 hp)

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.