



KF2060 Pulp and Paper Processes 9.0 credits

Massa- och pappersprocesser

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

Establishment

Course syllabus for KF2060 valid from Autumn 2007

Grading scale

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

Education cycle

Second cycle

Main field of study

Chemistry and Chemical Engineering

Specific prerequisites

Language of instruction

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

Intended learning outcomes

After completed course the student should be able to:

- Give a description of the equipment and processes used in pulp and paper production and the methods for pulp property evaluation
- Define and assess pulps with respect to the properties of the end-product
- Evaluate the impact of process changes on the economy of the pulp and paper production
- Summarise scientific information obtained both from published literature and from laboratory results and present it orally and in written reports

Course contents

Lectures

Production of papermaking pulps according to different methods (mechanical and chemical) from different wood materials, including wood properties and wood handling. Evaluation of pulp properties and the effects of process conditions. Chemical recovery systems and equipment.

The flow sheet in papermaking systems, retention chemistry and the processes for stock preparation, forming, pressing, drying, calendering and coating.

Laboratory work

Illustrates mechanical and chemical pulping, bleaching and evaluation of pulp properties.

Evaluate the efficiency of retention chemicals and of water removal in wet pressing.

Literature project to evaluate technical literature and present the results orally and in writing.

Study trip, two days compulsory

Course literature

Pulp Technology. The Ljungberg Textbook

Examination

- TEN1 - Examination, 6.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 3.0 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.

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

Other requirements for final grade

Written examination 6 cr

Acknowledged laboratory work 3 cr

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.