SD2500 Wood and Cellulose Science 7.0 credits

Materialteknik - trä och cellulosa

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

Establishment

Course syllabus for SD2500 valid from Autumn 2007

Grading scale

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

Education cycle

Second cycle

Main field of study

Specific prerequisites

A first course in mechanics or solid mechanics.

Language of instruction

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

Intended learning outcomes

Understanding of structure-property relationships in wood, wood composites and cellulose fibers. The aim is knowledge and abilities for R&D work with materials and products, as well as trouble-shooting in production. Ability to suggest wood modification for given application, ability to plan and analyse experimental studies of structure and properties of wood products.

Course contents

New materials and products from wood and cellulose. Wood, function in the tree, the route from tree, via production unit to wood products. Cellular structure, cell wall, cellulose fiber. Wood as a composite material, chemical composition, material mechanics aspects, properties. Wood composites.

Course literature

Dinwoodie, J.M., Timber, Its Nature and Behaviour, Spon Press, 2000

Berglund L, Wood science and engineering – lecture notes

Examination

- ÖVN1 - Assignments, 1.0 credits, grading scale: P, F
- TEN2 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- LAB1 - Laboratory Work, 1.0 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

Midterm exam (2 hp), written final exam (3 hp), homework assignments (1 hp), lab reports (1 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.