



FCK3100 Nonwoven; From Fundamentals to Processing 4.5 credits

Nonwoven; Från grundläggande principer till processer

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

Establishment

Course syllabus for FCK3100 valid from Spring 2019

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

Accepted for doctoral studies at universities and higher-education institutions, and external participants with similar competence.

Language of instruction

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

Intended learning outcomes

1. Basic processes used for producing non-woven materials
2. Fundamental forming principles for generating non-woven materials; fluid dynamics of high aspect ratio fibres, melting and crystallization of polymers, interactions between thermoplastic polymers and natural fibres, the relationship between network structure and macroscopic properties
3. Basic properties of natural and synthetic fibres used for non-woven materials
4. Application areas of non-woven materials
5. Scale of production of non-woven materials
6. New, interactive devices made from non-woven materials
7. The use of renewable and degradable components in Nonwovens

Course contents

Lectures and self studies.

Disposition

Lectures concentrated during one week of full-time studies, and 2 weeks of full-time self studies on supplied written material followed by a written exam.

Course literature

Copy of hand-outs and relevant literature.

Examination

- TEN1 - Written Exam, 3.0 credits, grading scale: P, F
- DEL1 - Attendance, 1.5 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

Participation in lectures, and 2 weeks of self-studies of supplied literature and a passed written exam.

Compulsory presence during the lectures is credited as 1.5 ECTS, and the passed written exam as 3.0 ECTS.

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.