



Nonwovens

Nonwovens

3 credits

Ladok Code: AT1NW2

Version: 1.0

Established by: Committee for Education in Technology 2024-06-14

Valid from: Spring 2025

Education Cycle: First cycle

Main Field of Study (Progressive Specialisation): Textile Technology (G1N)

Disciplinary Domain: Technology

Prerequisites: Textile overview - Fiber and yarn technology 3 credits

Subject Area: Textile Technology

Grading Scale: Seven-degree grading scale (A-F)

Content

The course presents basic principles for various processes for manufacturing nonwoven fabrics and how fiber properties and production methods affect the properties and usability of the structures. The course introduces the characterization of fiber properties, links them to appropriate production methods and technical requirements for nonwoven products.

Students will learn to identify processes and technical requirements for nonwoven production as well as sustainability aspects of nonwoven fabrics.

Learning Outcomes

Knowledge and understanding

- 1.1 Describe the characterization and properties of fibers used in the production of nonwoven fabric,
- 1.2 describe the various process steps for the production of nonwoven fabric,
- 1.3 describe the relationship between production methods and the properties of nonwoven fabric,
- 1.4 describe the sustainability and recycling options for end-of-life nonwoven products.

Skills and Abilities

- 2.1 Suggest suitable manufacturing methods for non-woven fabrics based on the properties of the material.
- 2.2 Identify nonwoven structures.
- 2.3 Choose and argue for the chosen manufacturing method in relation to fiber properties and desired nonwoven fabrics,

Evaluation skills and approach

- 3.1 Reflect on how production methods can affect the properties of nonwoven fabrics.

Forms of Teaching

Teaching will be conducted remotely through lectures.

The language of instruction is English.

Forms of Examination

The course will be examined through the following examination elements:

Exam

Learning outcomes:

Credits: 2.5

Grading scale: Seven-degree grading scale (A-F)

Submission task

Learning outcomes:

Credits: 0.5

Grading scale: Fail (U) or Pass (G)

The result of the exam determines the final grade of the course, provided that all other parts of the course are approved.

If the student has received a decision/recommendation regarding special pedagogical support from the University of Borås due to disability or special needs, the examiner has the right to make accommodations when it comes to examination. The examiner must, based on the objectives of the course syllabus, determine whether the examination can be adapted in accordance with the decision/recommendation.

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

Literature and Other Teaching Materials

Handbook of Nonwovens, Second Edition, S.J. Russel, 2022 (Electronic resource).

Additional material is provided via HB's learning platform during the course.

Student Influence and Evaluation

The course is evaluated in accordance with current guidelines for course evaluations at the University of Borås in which students' views are to be gathered. The course evaluation report is published and returned to participating and prospective students in accordance with the above-mentioned guidelines, and will be taken into consideration in the future development of courses and education programmes. Course coordinators are responsible for ensuring that the evaluations are conducted as described above.

Miscellaneous

This syllabus is a translation from the Swedish original.

The course is a stand-alone course.