UNIVERSITY OF BORÅS

Joining technology for textile products
Sammanfogningsteknik för textila produkter
5 credits

Ladok Code: AT1SF2
Version: 1.0
Established by: Committee for Education in Technology 2025-04-04
Valid from: Autumn 2025

Education Cycle: First cycle
Main Field of Study (Progressive Specialisation): Textile Technology (G1F)
Disciplinary Domain: Technology
Prerequisites: Basic eligibility (with the exception of the requirement for Swedish), Textile basic course 5 credits and 5 credits in total from textile basic courses: Fiber and Yarn technology, Knitting technology, Weaving technology, Dyeing and finishing, Textile product manufacturing.
Subject Area: Textile Technology
Grading Scale: Seven-degree grading scale (A-F)

Content
A textile product, such as clothing, bags, interior design and technical textiles, is often composed of several different textile parts of different or the same material. The joining of these different parts plays an important role in the product's function, properties, appearance, durability and cost. For example, a weak or incorrect joining can shorten the lifespan of the finished product or lead to complaints. A conscious choice of, and understanding of, joining technology is therefore of great importance both in product development and production.

This course provides a broad insight and basic understanding of how textile materials can be joined into different products, as well as the functional structure of the machines used. With a focus on industrial manufacturing, the course covers different joining techniques, including sewing with needle and thread, ultrasonic welding and taping. Students learn about the different techniques through theoretical presentations. By practically trying out different machines, the knowledge and understanding of joining is reinforced. The course also highlights the importance of understanding and communicating seams and stitches, and how sewing errors can be avoided. In addition, the role of joining in disassembly and recycling is discussed, as well as techniques for repairing broken products to promote circular strategies.

Learning Outcomes
Upon completion of the course, the student should be able to, with regard to:

Knowledge and Understanding
1.1 Describe different ways of industrially joining textile materials,
1.2 identify stitches and seams and describe their properties and uses.
1.3 describe different standards for stitches and seams and be able to name different stitches and seams,
1.4 describe different types of sewing machine needles and sewing thread and their uses,
1.5 describe the different performance parameters that control the properties of joining’s and factors that affect them,
1.6 identify different types of stitch and seam defects, explain the causes and give suggestions for improvement,
1.7 describe the function of different machines for joining and describe their basic structure.

Skills and Abilities
2.1 Use various machines for joining in industrial manufacturing and repair at a basic level,
2.2 choose appropriate joining techniques depending on the properties and structure of the textile materials and the desired function, properties and appearance of the product,
2.3 interpret, explain and communicate the product's joins visually for production, including through sectional drawings.

Valuation and approach

3.1 justify joining techniques for different products based on various aspects such as desired quality, sustainable development, cost, user-friendliness and repair of broken products,
3.2 assess and reflect on how the product's properties have been affected by the chosen joining technique and how it was performed.

Forms of Teaching

The teaching in the course consists of:
• Lectures
• Laboratory work
• Seminars

The language of instruction is English. However, instruction in Swedish may occur.

Forms of Examination

The course will be examined through the following examination elements:

Written exam
Learning outcomes:
Credits: 3
Gradingscale: Seven-degree grading scale (A-F)

Laboration
Learning outcomes:
Credits: 1
Gradingscale: Fail (U) or Pass (G)

Seminar
Learning outcomes:
Credits: 1
Gradingscale: Fail (U) or Pass (G)

The value of the written exam determines the course's final grade, which is granted when all examination elements have been 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

Course literature is in English.

Tyler D. (2008) *Carr & Latham´s Technology of clothing manufacture.* Blackwell publishing. 4th edition

Supplementary materials are available via the University of Borås learning platform.

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 part of the range of basic courses in textile technology. If the entire student group and the responsible teacher agree, the oral teaching and examination in the course can be given in Swedish.