



THE SWEDISH SCHOOL
OF TEXTILES
UNIVERSITY OF BORÅS



Textile Technology and Engineering

MASTER'S PROGRAMME

The starting point of this programme is textile fibres: what do they consist of? What significance do they have, and what could be done with them? This educational programme links together and specialises in different elements that develop both theoretical and practical knowledge. It is a modern programme that includes recurring elements such as digitisation, recyclability, and a sustainability perspective.

Textile Technology and Engineering



MASTER'S PROGRAMME

This educational programme is the only one of its kind in Scandinavia and one of few in Europe. It has a strong focus on research and development, providing a deep understanding of technology and chemistry, i.e., how to truly make it work. It is designed for students with a Bachelor's degree in the engineering field who are motivated to work and explore in a laboratory or manufacturing environment. To make the most of the programme, you need good skills in mathematics, textile manufacturing methods, textile material technology, and textile chemistry. During the educational programme, you will develop your knowledge, skills, and assessment in textile technology.

WELL-EQUIPPED LABORATORIES

The Swedish School of Textiles has well-equipped laboratories, both industrial-scale and small-scale research labs. The latter facilitate exploratory proof-of-concept studies before moving to a larger scale. The staff's competence is unique and provides a strong research basis for the education.

SUSTAINABLE DEVELOPMENT

The essence of textile engineering is to maintain textiles' tactile feel even as they obtain new abilities and interactivity through different technical processes. This is why the programme emphasises polymers, fibres, yarns, and fabrics, as well as process thinking and advanced functionalisation of textiles at the beginning. During the second year, its research foundation becomes particularly pronounced. The students will work with state-of-the-art machinery and instruments and practice their scientific writing and communication skills. To address the challenges of the textile world today and in the future, the programme contributes to digitalisation, circular processes, and

sustainable development, which are also decisive driving forces for the Faculty's research.

PROGRAMME STRUCTURE

The educational programme follows the different scales of textiles' composition. The course on Polymer Technology deals with the materials at the atomic and molecular levels, followed by the course Fibre and Yarn Technology. This is further followed by courses in Advanced Textile Structures and Textile-Based Composites.

In the Textile Chemistry course and the Wearable Textile Electronics course, students develop tools to manipulate and functionalise textiles. The courses in Product Development and the Project Course in Advanced Textiles offer opportunities to study applications, just as the course in Ethics in the Textile Value Chain course puts technology into context.

During the project course, students' knowledge of the theory of science and research methodology is founded. Further specialisation in the course Advanced Textile Chemistry followed by Advanced Finishing and Printing and the course in Smart Textiles supports the students to be well prepared to show their multitude of skills and abilities in their degree project.

CAREER OPPORTUNITIES

After graduation, various career paths open up. Students can work in various research and development-oriented industrial positions or in production and quality assurance roles, eventually advancing into specialist or managerial positions. Perhaps further specialisation in textile technology through doctoral studies will be of interest.

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