



M.Sc. Textile Engineering

Do you want to become a textile expert and broaden your knowledge while specializing in technical textiles, high-performance fibres, 3D-textiles and new processes and machines to manufacture textile products?

After successfully completing the Master's programme in Textile Engineering at RWTH, graduates work in the field of constructing textile machinery as well as developing processes and operations for the production of various kinds of textiles.

RWTH Aachen University and the Institute for Textile Technology (ITA)

Germany is one of the global leaders in research and development of new technologies in mechanical engineering industries and textile production. It is also one of the biggest producers of technical textiles.

The academic leadership lies with the RWTH Textile Technology institute (ITA), which is credited frequently for its innovations and leading position in Textile Engineering. According to the QS World University Ranking 2015, RWTH Aachen University is the best German university in the field of mechanical engineering.

Career Perspectives

As a textile engineer you will be qualified to...

- develop new machines to manufacture textile products
- develop nano-composite materials for high-performance textiles
- invent new fibre-reinforced plastic materials for application in aeronautics or car racing such as "Formula 1"
- develop advanced polymer blend technology for product improvements in textiles and composites
- improve and develop innovative methods in production of fibre-reinforced plastic materials
- design smart fibres which are able to monitor vital signs to give more independence for those with cardiovascular disease treatment

Key Facts

- English and German taught
- 1.5-year programme (3 semesters)
- 90 Credit points
- Degree: Master of Science - M.Sc. (RWTH)
- Fees: 4,200.00 EUR per semester
- Start: Every year in October
- Application Deadline: Every year 1 March

Programme Structure

The "Master of Science Textile Engineering" has an interdisciplinary structure and provides two modes of study: one practically oriented option "by coursework" and one research-oriented option "by research":

Coursework 1. Semester	Coursework 2. Semester	Research 1. Semester	Research 2. Semester
Control Engineering	Fluid Dynamics	Control Engineering	Fluid Dynamics
Machine Design Process	High Performance Fibres	Machine Design Process	High Performance Fibres
Gear and Transmission Technology	Composites	Quality Management	Composites
			Second Research Project
Finite Element Methods for Engineers	Elective Courses*	First Research Project	Research 3. Semester
Quality Management			Master Thesis
Minor Research Project	Master Thesis		Elective Courses**
	Elective Courses*		

*Elective Courses Coursework: Faserstoffe 1 (natural fibres), Textiltechnik 3 (fabrics, finishing), Innovation Management, Computational Fluid Dynamics I, Production Metrology, Factory Planning, Failure of Structures and Structural Elements, Ausgewählte Themen der Textiltechnik, Finite Element Methods in Lightweight Design, Nonlinear Structural Mechanics, Practical Introduction to FEM Software I, Numerical Methods in Mech. Eng., Computational Fluid Dynamics II, Technische Textilien (technical textiles), Faserstoffe 2 (synthetic fibres), Textiltechnik 2 (yarns), Modellbildung und Simulation in der Textiltechnik, Fundamentals of Lightweight Design, Predictive Simulation.

**Elective Courses Research: Practical Introduction to FEM Software I, Numerical Methods in Mech. Eng., Computational Fluid Dynamics II, Technische Textilien (technical textiles), Faserstoffe 2 (synthetic fibres), Textiltechnik 2 (yarns), Ausgewählte Themen der Textiltechnik, Modellbildung und Simulation in der Textiltechnik, Fundamentals of Lightweight Design, Predictive Simulation.

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