Do you want to become an innovator in technical textiles?
Are you interested in being involved in innovative production technologies in health monitoring, geotextiles, and wind energy or even the design of novel high performance fibers, such as airbags, for the automotive and aviation industry? In this M.Sc. program you will explore the latest developments in textile technology in a wide range of subjects, for example high-performance fibers, 3D textiles and new processes or machines to manufacture digital products. Since 10% of all materials are fiber-based, this course of study covers all stages of textile production: yarn, fabrics, composites, and semi-finished parts. When you begin this M.Sc. program, you will choose one of two modes of study: coursework or research. The coursework option focuses on practical and applied textile engineering, while the research option allows you to specialize in a particular field of interest.

Study at a top university in the heart of Europe!
Aachen provides the perfect backdrop to the dynamic academic and cultural environment of RWTH Aachen University. The safe, historical and multicultural student city is located right at the “Border Triangle”, where the borders of Belgium, the Netherlands, and Germany meet. There are plenty of opportunities for you to practice your favorite sport, get involved in academic or social projects, and try out a fun activity in one of the many student clubs.

Follow in the footsteps of RWTH Aachen’s Institute for Textile Technology (ITA)!
RWTH Aachen’s Institute for Textile Technology (ITA) is in charge of this M.Sc. program’s academic organization. ITA boasts first-class infrastructure, including a technical center with 250 textile machines, test setups for all textile process levels from fiber to product, as well as testing laboratories from polymer to textile. ITA’s research focuses on the development of new textile machines and processes. The research projects are carried out either as part of publicly funded projects (e.g. EU) or as R&D projects for industry. ITA’s innovative research has even led to it winning the Techtextil Innovation Award several times, for example in 2015 for the development of a sewing technology which joins carbon and glass-fiber reinforced fibers at a rate of up to 3,000 stitches per minute.

Get great career perspectives!
As a graduate of this M.Sc. program, you will be qualified to...
- develop new machines to manufacture textile products
- develop nano-composite materials for high-performance textiles
- invent new fiber-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 the production of fiber-reinforced plastic materials
- design smart medical fibers to monitor vital signs and consequently give patients undergoing cardiovascular disease treatment more independence.
### Program Structure*

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<th>Research 1st Semester</th>
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<td>Control Engineering</td>
<td>Fluid Dynamics</td>
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<td>Gear and Transmission Technology</td>
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<td>Quality Management</td>
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<td>Advanced Finite Element Methods</td>
<td>Elective Courses (see below)</td>
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<td>Minor Research Project</td>
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<td>Elective Courses (see below)</td>
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</table>

*the curriculum is tentative


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

**Key Facts**
- Taught in English and German
- 2-year program (4 semesters)
- 120 credit points
- Degree: Master of Science - M.Sc. RWTH (awarded by RWTH Aachen University)
- Tuition fee: EUR 4,500 per semester
- Start: Every year in October
- Application Deadline: March 1 every year

**Contact**
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