



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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Master's degree



Textile Machinery and High Performance Material Technology

Dresden University of Technology • Dresden



Overview

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| Degree | Master of Science (MSc) |
| Teaching language | <ul style="list-style-type: none">German |
| Languages | German, partly in English Participants can choose to write their Master's theses in English. |
| Full-time / part-time | <ul style="list-style-type: none">full-time |
| Programme duration | 4 semesters |
| Beginning | Winter semester |
| Application deadline | For individual funding: 31 May of every year Please see also: www.tu-dresden.de/ing/maschinenwesen/itm/studium/studiengaenge/matk/index?set_language=en For DAAD scholarships: 1 October at the university for the following year (winter semester) |
| Tuition fees per semester in EUR | None |
| Combined Master's degree / PhD programme | No |
| Joint degree / double degree programme | No |
| Description/content | This Master's programme presents the possibility of an interdisciplinary education; focusing mainly on the world's leading textile machinery manufacturers in Germany and the processing of textile high performance materials for technical applications. The objective is to produce graduates who understands the field of expertise in its complexity, are acquainted with highly innovative fields of |

research, and can apply the acquired specialised knowledge in a future professional occupation in research, industry, teaching or international cooperation. Our graduates are qualified for technical executive functions in the textile and clothing industry, especially in companies developing technical textiles and textile products (machinery and automobile construction, membrane development, architecture, medical products, etc.) as well as in research and education. However, graduates also work in classical textile and clothing industries.

The main focus of the subject-specific modules is on resource-efficient technologies for the manufacture of new technical and textile-based products and innovative textile machine developments. These include the study areas of nonwovens for medical and hygienic applications, textile recycling, filter materials, geotextiles, lightweight construction, personal and property protection, and smart textiles. The programme provides students with a first professional university degree education in the fields of mechanical engineering, textile mechanical engineering, textile engineering, textile technology, textile-based product development, ready-made textile product technologies, textile chemistry and textile finishing, and textile recycling. The curriculum also allows for individual in-depth study and setting of priorities within the framework of the "research internship" module and the elective modules as well as during the Master's thesis. This Master's degree qualifies our students with excellent results worldwide to enter a PhD programme.

Our Master's programme is research-oriented with extremely high practical relevance. Our study programme is characterised by a very good supervision ratio between teachers and students. The excellent infrastructure with state-of-the-art machinery and plant technology as well as testing technology along the entire value chain is almost unique in the field in Germany and worldwide. Students are offered the financially supported opportunity to attend national and international conferences and trade fairs. This is supported by the fact that the institute is embedded in an efficient international network of the textile field. Due to the excellent conditions for studying in this programme, an extremely high success rate of students with DAAD scholarships has been achieved so far.

Course Details

Course organisation

The curriculum includes a total of 15 modules, consisting of 12 compulsory modules and 12 elective modules from which three modules must be selected. The 12 elective modules include specific contents on complex textile constructions, design of technical textiles, machines and technologies for the production and finishing of technical textiles, functionalisation and boundary layer design of textile surfaces, textile finishing, fibre-based implants and biomaterials, tissue engineering, 2D/3D CAE technologies for the development of textile constructions and textile products, machines and technologies for the production of nonwovens and for textile recycling, design, construction and adjustment of textile and finishing machines.

The basic modules in Mathematics, Computer Applications in Mechanical Engineering, Technical Mechanics, Machine Elements/Design, and Mechanisms and Ergonomics/Management impart the mathematical, scientific, business as well as engineering-relevant basics for the field of textile and clothing technology.

During the mandatory research internship and the elective subjects, students can specialise and deepen their knowledge individually. In addition, the Master's thesis offers a further opportunity for individual deepening and focusing on the later targeted field of activity. The students work independently and according to scientific methods on a challenging industry-relevant topic from current research in the field and/or its applications. The results are presented and discussed in the form of a colloquium.

Our Master's degree programme covers four semesters. The teaching is spread over the first three semesters and the first six weeks at the beginning of the fourth semester. The curriculum and objectives of the course, forms of lecturing and studying, requirements, suitability, frequency, required work, as well as the duration of each module can be found in the module description. The appropriate distribution of the modules over the individual semesters can be taken from the study plan. The fourth semester also includes a period of four months for the preparation of the Master's thesis and for the colloquium. Including the Master's thesis and the colloquium, 120 credits can be acquired in total. Successful completion of the programme earns the graduate an academic degree that entitles him or her to pursue doctoral studies worldwide.

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| A Diploma supplement will be issued | Yes |
| International elements | <ul style="list-style-type: none">• International guest lecturers• Study trips |
| Special promotion / funding of the programme | <ul style="list-style-type: none">• DAAD development-related postgraduate course |
| Course-specific, integrated German language courses | No |
| Course-specific, integrated English language courses | No |

Costs / Funding

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| Tuition fees per semester in EUR | None |
| Semester contribution | Currently, students pay approx. 300 EUR per semester (i.e. for six months), including a ticket for public transport in Dresden (bus, tram, ferry, "S-Bahn" suburban train) and regional trains in the Federal State of Saxony. Students can also use a bike rental service all over the city for free for 30 minutes. The contribution also assures concessions in the university cafeterias and offers benefits (e.g. price reductions) for many cultural and leisure activities in Dresden. |
| Costs of living | Dresden offers high quality of living at very moderate costs. Currently, students should expect to pay around 850 EUR per month including rent, food, insurance and basic expenses. This figure is relatively low compared to other big German cities. |
| Funding opportunities within the university | Yes |
| Description of the above-mentioned funding opportunities within the university | Information on scholarships and funding for students is summarised on a dedicated web page of the TU Dresden . |

Requirements / Registration

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| Academic admission requirements | Applicants must have a first vocationally qualifying international university degree (BSc) in one of the following fields: Mechanical Engineering, Textile Engineering, Textile Technology, Ready-made Clothing Engineering, Ready-made Clothing Technology, Textile Chemistry, Textile Finishing or Industrial Engineering, Electrical Engineering or Computer Science. They must have also acquired related industrial experience in the field of the intended Master's degree in the last two years before applying and also during the application period/process for the DAAD scholarship. |
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| Language requirements | <p>German language test for university qualification</p> <ul style="list-style-type: none"> • DSH 2, C1 telc Hochschule or TestDaF, level 4 - in all partial fields or other equivalent language certificates according to the Resolution of the Proof of Language Knowledge by the Conference of Ministers of Culture, Education and Church Affairs of 6 June 1995, updated 9 March 2005 <p>At the time of application for a DAAD scholarship, only the proof of German language skills at least at level B1 is required. It is then a prerequisite to attain a DSH 2 or TestDaF 4 qualification in a German language course prior to the start of the first semester.</p> |
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| Application deadline | <p>For individual funding: 31 May of every year Please see also: www.tu-dresden.de/ing/maschinenwesen/itm/studium/studiengaenge/matk/index?set_language=en</p> <p>For DAAD scholarships: 1 October at the university for the following year (winter semester)</p> |
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| Submit application to | <p>Application for DAAD scholarship: Technische Universität Dresden Institut für Textilmaschinen und Textile Hochleistungswerkstofftechnik 01062 Dresden Germany</p> <p>Application for a place in the programme without a scholarship: https://tud.de/online-bewerbung</p> |
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Services

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| Possibility of finding part-time employment | <p>In order to top up their budget, some students may want to look for temporary work in Dresden. If so, different regulations apply for students from EU member states, countries of the European Economic Area (EEA) and Switzerland, and students from outside the European Union and the EEA area. In addition, restrictions on the duration of employment may apply. Professors, lecturers and group leaders involved in the Master's programme may offer students the possibility of working as academic assistants. However, living expenses can be financed only partially through a job as an academic assistant.</p> |
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| Accommodation | <p>It is still relatively easy to find affordable accommodation in Dresden. Accommodation is available either via the "Studentenwerk Dresden" or on the private market. Rent for a single room in a student residence is approx. 250 EUR per month. Private housing can be found online. We recommend that you move into a hall of residence at the beginning of your stay in Dresden. Subsequently, you can look for a place on the private market or in a shared apartment, which is known as a "Wohngemeinschaft" in German.</p> |
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| Career advisory service | <p>TU Dresden offers plenty of counselling and training within its Career Service to help students with finding professional orientation. They offer workshops to equip students with professional skills and aid to optimize your CV. Moreover, support students networking with potential employers.</p> <p>Additionally, there are special workshops for international students to get to know the German and Saxon job market and network.</p> |
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Support for international

students and doctoral candidates

- Tutors

General services and support for international students and doctoral candidates

Tutors for basic courses (Mathematics, Mechanical Engineering, Computer Science as well as textile related courses)

Supervisor-student ratio

A special feature of the study course is the excellent supervisor-student ratio.



Master's Course in Textile Machinery and High Performance Material Technology at the ITM, TU Dresden (incl. English subtitles)

The programme is integrated in the internationalisation strategy of TU Dresden and internationally focused on the development related study and scientific landscape of the Faculty of Mechanical Science and Engineering. Since 2010, more than 100 national and international prizes and four research works have been nominated for awards, i.e. the German Future Prize (2016).

» more: <https://youtu.be/7cIEI2D2z1Y>

Dresden University of Technology

TU Dresden is one of eleven Universities of Excellence in Germany and is among the top universities in Europe: strong in research, it offers first-rate programmes with an overwhelming diversity, with close ties to culture, industry and society. As a modern comprehensive university with five schools (17 faculties), it offers a wide academic range of programmes. With 30,000 students (18% international) TU Dresden is the largest university in Saxony. It enjoys an outstanding national and international reputation for research in natural and engineering sciences.

One of the most prominent characteristics of TU Dresden is its dynamic development – a process that has been going on for years and will continue into the future. As a "synergetic university", TU Dresden closely cooperates with external research institutions as well as cultural, industrial, and social organisations. Students also benefit from interdisciplinary collaboration with a focus on practical outcomes. Teaching and research follow the principle of involving both students and graduates into current research early on.

University location

The capital of the Free State of Saxony, Dresden, stands majestically on the river Elbe. The fourth-largest city by area in Germany, Dresden is home not just to riverside palaces, Baroque churches and world-class museums but also to a proud history of science and technology. This finds continuity into the present with the DRESDEN-concept, an alliance of 36 research institutions in and around Dresden, of which TUD is a proud and prominent member. Whether you are interested in theatre, opera, cabaret or cinema, or if you enjoy a stroll through museums or a night out at the pub, Dresden has something to offer for everyone. Students also get an opportunity to be active in the many sports facilities in Dresden, including TU Dresden's own, or in the surrounding nature of the Elbe landscape, the Elbe Sandstone Mountains (Elbsandsteingebirge) or the Ore Mountains (Erzgebirge). The surroundings of the city have plenty to offer and the city is an excellent hub from which to explore Berlin, Prague, Leipzig and Wrocław.

Contact

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🌐 Course website: https://tu-dresden.de/ing/maschinenwesen/itm/studium/studiengaenge/matk?set_language=en

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📷 https://www.instagram.com/itm_tud/

📺 <https://www.youtube.com/@itm8076>

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International Programmes in Germany - Database

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Disclaimer

The data used for this database was collected and analysed in good faith and with due diligence. The DAAD and the Content5 AG accept no liability for the correctness of the data contained in the "International Programmes in Germany" and "Language and Short Courses in Germany".

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