



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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Master's degree



Master of Science in Manufacturing Technology (MMT)

TU Dortmund University • Dortmund



Overview

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| Degree | Master of Science in Manufacturing Technology |
| Teaching language | <ul style="list-style-type: none">English |
| Languages | The MMT programme is a fully English-taught course of study. |
| Full-time / part-time | <ul style="list-style-type: none">full-time |
| Programme duration | 4 semesters |
| Beginning | Winter semester |
| Application deadline | Application period: 1 February to 15 March (for both EU and non-EU applicants) |
| Tuition fees per semester in EUR | None |
| Combined Master's degree / PhD programme | No |
| Joint degree / double degree programme | No |

Description/content

In the first two semesters, students initially acquire advanced theoretical knowledge in the fields of forming technology, materials technology, and machining technology. The "Interdisciplinary Qualification" module in the first two semesters enables students to familiarise themselves with the methodology of other disciplines such as the humanities, social sciences or economics. In addition to the content already mentioned, students can individualise their course of study from the beginning and deepen personal interests through electives from an elective catalogue. The elective content is organised over three semesters, so that there is a balanced relationship in the parallel pursuit of compulsory and elective content. Students are given a high degree of flexibility in the design of their studies.

In the third semester, the range of courses is supplemented by the acquisition of further practical knowledge. Within the framework of a specialist laboratory and a scientific (industrial) project, students learn how to work independently on specific problems. This should enable students to

compare the manufacturing processes they have become familiar with in industrial practice with current developments in the individual subject areas. In addition, students learn how to organise and successfully implement projects involving several participants. Important soft skills, such as working on a project in a team, but also independent and scientific work are acquired through this.

Thanks to the international nature of the programme, students acquire additional soft skills, such as intercultural competencies. The skills acquired in the rhetoric and language courses can be applied in everyday professional life and contribute to the students' personal development.

On the basis of the final Master's thesis in the fourth semester, students demonstrate that they are able to work independently on a complex problem. Upon completion of the programme, graduates are able to analyse and optimise existing manufacturing processes, evaluate production systems and develop new processes.

Further information can be found on the MMT website:<http://www.mmt.mb.tu-dortmund.de/>.

Course Details

Course organisation

During the first two semesters, students gain profound theoretical knowledge in the following compulsory modules:

- Machining Technology
- Materials Science
- Forming Technology

The "Interdisciplinary Qualification" module is geared towards imparting soft skills as well as language skills in order to prepare students for their later profession.

In addition, students choose elective modules according to their individual interests, for example:

- Advanced Methods for Reliability Engineering
- Advanced Simulation Techniques in Metal Forming
- Automation and Handling Systems
- Basics of Materials and Technology
- Fatigue Behaviour
- Finite Element Methods
- Finite Inelasticity
- Fundamentals of Robotics
- Introduction to Reliability Engineering
- Machining Process Simulation
- Measurement Engineering
- Nonlinear Continuum Mechanics
- Nonlinear Finite Element Methods
- Parameter Identification
- Simulation Methods in Solid Mechanics
- Topics in Manufacturing Technology

The third semester is characterised by project and laboratory work, which enables students to acquire the competency to apply theoretical knowledge in practical applications.

The Master's thesis is scheduled for the fourth semester.

A Diploma supplement will be issued

Yes

International elements

Voluntary stays abroad are possible.

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| Description of other international elements | Voluntary stays abroad are possible. |
| Integrated internships | Voluntary internships are possible. |
| Special promotion / funding of the programme | <ul style="list-style-type: none"> Other (e.g. state level) |
| Course-specific, integrated German language courses | Yes |
| Course-specific, integrated English language courses | No |

Costs / Funding

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| Tuition fees per semester in EUR | None |
| Semester contribution | Approx. 300 EUR per semester |
| Costs of living | 800-1000 EUR per month |
| Funding opportunities within the university | Yes |
| Description of the above-mentioned funding opportunities within the university | <p>Deutschlandstipendium</p> <p>Please find more information here: https://mb.tu-dortmund.de/en/faculty/scholarships-awards/</p> |

Requirements / Registration

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| Academic admission requirements | <ul style="list-style-type: none"> An appropriate Bachelor of Science degree in the field of mechanical engineering or a comparable degree with a total of 180 credit points (ECTS). A Bachelor's degree course is considered appropriate when it includes modules of the following subjects: <ol style="list-style-type: none"> 1. mathematics, covering at least 15 credit points (ECTS) 2. mechanics, covering at least 9 credit points (ECTS) 3. materials engineering, production engineering, theory of design and/or metrology and feedback control, totalling at least 15 credit points (ECTS) to be divided individually Credits from the fields 1-3 totalling at least 50 CP An average final Bachelor's degree grade which corresponds at least to the grade "good" (1.9) Language certificate (see below) Recommended: three letters of recommendation (academic or professional) Recommended: proof of one's ranking among the top 10% students of one's graduating class Recommended: GRE (graduate record examination) |
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An admissions committee decides on exceptions, requirements, and the admission of candidates with comparable degrees to the Master's programme.

Language requirements

All applicants must provide proof of their English skills B2 (TOEFL [79], IELTS [6.5], or equivalent certificate). Please check here for detailed information: <https://mb.tu-dortmund.de/studium/studiengaenge/msc-manufacturing-technology/application/requirements-documents/>

Knowledge of German is not required.

Application deadline

Application period: 1 February to 15 March (for both EU and non-EU applicants)

Submit application to

Applications can be submitted online via uni-assist.

Please click here for further information: <https://mb.tu-dortmund.de/studium/studiengaenge/msc-manufacturing-technology/application/>

Services

Possibility of finding part-time employment

Student research assistant positions are available.

Accommodation

Accommodation is available through student services (<https://www.stwdo.de/wohnen>) as well as through the International Office of TU Dortmund University (<https://international.tu-dortmund.de/en/international-students/everyday-life/accommodation/>), or on the private market. Rent for a single room in a student residence is approx. 180 to 300 EUR. Also check out the City of Dortmund website for information on finding housing for students (https://www.dortmund.de/de/leben_in_dortmund/bildungswissenschaft/studienorientierung)

Support for international students and doctoral candidates

- Welcome event
- Buddy programme

General services and support for international students and doctoral candidates

An International Coordination Team can be approached at all times. Before the start of their studies, first-year students are assigned a "buddy team" consisting of an already-established MMT student and a student from the German taught programmes. In this way, the first-year students can already establish contacts, ask questions and ask for help in a short and unconventional way.

As an integrated part of the syllabus, every semester, we offer an MMT German course at the beginner level A1 (winter semester). In case students already have German language skills, they may choose another German course with a higher level. However, those courses are not integrated into the schedule.



We are TU Dortmund University

Communicative – innovative – unique

» more:
<https://www.youtube.com/watch?v=L7IYgWsiW6Y>

TU Dortmund University



View of the Math Tower

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A university with a unique profile: Since its founding in 1968, TU Dortmund University has developed a special profile encompassing 17 departments ranging from science and engineering to social sciences and cultural studies. The university has more than 32,000 students and 6,800 employees, including 300 professors.

TU Dortmund University has a strong focus on research. The university's departments, e.g. mechanical engineering (with its emphasis on production and logistics), physics, biochemical and chemical engineering, statistics and computer science, and education research, are well known for their outstanding research achievements both nationally and internationally.

Students at TU Dortmund University can choose from classical subjects and innovative courses of study such as medical physics or degree programmes in spatial planning, statistics, and journalism. A particular focus is on teacher training. TU Dortmund University is one of only a few universities in Germany that offers professional teaching qualifications for all types of schools.

University location

With around 6,800 employees, TU Dortmund University is one of Dortmund's largest employers and has helped drive the transformation of the city and the Ruhr region from Europe's largest coal mining and steel production area into a high-tech and service location as well as a cultural metropolis.

Dortmund is located in the heart of Europe. It is the largest city in the Ruhr region and is home to the Borussia Dortmund (BVB) soccer club. All of this contributes to the many advantages that will make studying in Dortmund an unforgettable experience. Apart from destinations for football fans, there are many other places of interest to discover in Dortmund and the Ruhr region.

Of particular importance for the development of the region is the University Alliance Ruhr (UA Ruhr), in which TU Dortmund University, the University of Duisburg-Essen, and Ruhr University Bochum joined forces more than a decade ago. Since the founding of the UA Ruhr, the Ruhr area has developed into one of the strongest science regions in Germany.

Contact


TU Dortmund University
Faculty of Mechanical Engineering

Leonhard-Euler-Strasse 5
44227 Dortmund

Tel. [+49 2317556462](tel:+492317556462)

 mmt.mb@tu-dortmund.de

 Course website: <https://mb.tu-dortmund.de/studium/studiengaenge/msc-manufacturing-technology/course-of-studies/>

 <https://www.instagram.com/mb.tudortmund/>

 <https://www.youtube.com/watch?v=n2GMTfDEj28>

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International Programmes in Germany - Database

www.daad.de/international-programmes
www.daad.de/sommerkurse

Editor

DAAD - Deutscher Akademischer Austauschdienst e.V.
German Academic Exchange Service
Section K23 – Information on Studying in Germany
Kennedyallee 50
D-53175 Bonn
www.daad.de

GATE-Germany

Consortium for International Higher Education Marketing
www.gate-germany.de

Disclaimer

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