



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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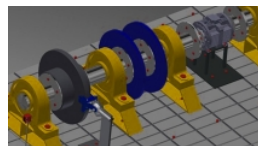
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Master's degree



Computer-Aided Mechanical Engineering (CAME)

RWTH Aachen University • Aachen



Overview

Degree	Master of Science (RWTH Aachen University)
Teaching language	<ul style="list-style-type: none">English
Languages	Courses are taught entirely in English.
Full-time / part-time	<ul style="list-style-type: none">full-time
Programme duration	4 semesters
Beginning	Winter semester
Application deadline	<p>Non-EU applicants (applicants who have citizenship of a country outside EU/EEA): 2 December to 1 March</p> <p>EU applicants (applicants who have citizenship of an EU/EEA country, are currently enrolled at RWTH Aachen or hold a German university degree): 2 December to 15 July</p> <p>Apply by 15 January (non-EU) / 15 April (EU) to benefit from a 10% early bird discount on the tuition fees!</p>
Tuition fees per semester in EUR	6,000 EUR
Additional information on tuition fees	24,000 EUR in total for four semesters
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	Expand your knowledge in computational intelligence and become an expert in digital engineering!

The MSc Computer-Aided Conception and Production in Mechanical Engineering (MSc CAME) incorporates most recent topics in computer-aided engineering (CAE) by providing a deep understanding of methods, technologies and software tools used to design and develop digital models of complex technical systems, objects or products. In particular, the programme focuses on advanced computer simulation software required for the creation of digital twins, which significantly improve the accuracy and reliability of design tasks in mechanical engineering. In addition, sound interdisciplinary engineering knowledge in the finite element methods, numerical methods, continuum mechanics or multibody dynamics will be conveyed in lectures.

Your studies – your choice: choose a study track

To equip you with the specialisation you need for your individual career path, we offer two study tracks in the MSc CAME:

Conception of Machines

In this design-oriented track, you will focus on:

- the development and application of modern software-based methods focused on construction and dimensioning of structures and systems
- the use of complex technical drawings
- the improvement of digital models and designs according to operational requirements

Production of Machines

In this production-oriented track, you will focus on:

- the development and use of software-based tools and solutions in modern industrial production
- the design, modelling and simulations of manufacturing processes
- the life cycle prediction of materials, elements, and components

Course Details

Course organisation	<p>The MSc CAME consists of:</p> <ul style="list-style-type: none"> • track-specific compulsory courses and electives • an integrated mobility window to complete a nine-week internship or write a mini-thesis with a research institute • two language courses and a linguistic elective • the Master's thesis, which can be written internally with an institute or externally with a company <p>Get a detailed overview of the programme structure on our MSc CAME website.</p>
A Diploma supplement will be issued	Yes
International elements	<ul style="list-style-type: none"> • Language training provided • Projects with partners in Germany and abroad • Integrated/optional study abroad unit(s) • Opportunities for students to work abroad • Specialist literature in other languages
Integrated/optional study abroad unit(s)	The programme takes place in Aachen (Germany). The study-integrated elective industrial internship and/or the Master's thesis can be completed in other countries.

Integrated internships

The third semester includes a mobility window to encourage work or research experience during your studies. Depending on your career goal you will either complete an industrial internship to gain further practical experience or work on a research project to enhance your academic profile.

Course-specific, integrated German language courses

No

Course-specific, integrated English language courses

No

Costs / Funding

Tuition fees per semester in EUR

6,000 EUR

Additional information on tuition fees

24,000 EUR in total for four semesters

Semester contribution

The RWTH Aachen University's semester fee of approx. 300 EUR is a student body and social contribution fee that every student must pay each semester in order to stay enrolled as an active student. It includes, among other benefits, a "semester ticket" covering public transport in the federal state of North Rhine-Westphalia in Germany as well as the region of South Limburg in the Netherlands.

Costs of living

The average cost of living, including food, accommodation, personal and social expenses, and study-related costs, is estimated to be at least 900 to 1,000 EUR per month.

Funding opportunities within the university

Yes

Description of the above-mentioned funding opportunities within the university

Women in Engineering Scholarship: This scholarship was created to support qualified female engineering students. The scholarship grants a reduction of up to 25% of the tuition fees.

High Potential Student Grant: This scholarship was created to support highly qualified students. The scholarship grants a reduction of up to 25% of the tuition fees.

Global Talent Scholarship: This scholarship was created to support promising students from Egypt/Indonesia/Iran/Nigeria/Turkey. The scholarship grants a reduction of 35% of the tuition fees.

Outstanding Performance Award: This scholarship honours students who have successfully completed our [German Engineering College](#). Their remarkable performance will be rewarded with a reduction of up to 50% of the tuition fees.

Requirements / Registration

Academic admission requirements

Please see our website for detailed information on the admission requirements for the [MSc CAME](#).

- Bachelor of Engineering, Bachelor of Technology or Bachelor of Science in mechanical engineering or a related discipline
- Relevant work experience of six months by the time of application
- GRE General Test (Verbal Reasoning: 145 points | Quantitative Reasoning: 160 points |

- Analytical Writing: 3 points) or proof of completion of [German Engineering College](#)
- Fundamental knowledge in engineering

Language requirements

If you would like to attend an English-taught Master's degree programme, you must be fluent in English (oral and written) in order to understand lectures, textbooks and manuals and to participate in lab projects, industrial internships and examinations.

One of the following certificates must be submitted **at the time of enrolment** (not at the time of application):

- TOEFL Internet-based: minimum of 90 points
- IELTS test: minimum overall band 6.0 points
- Cambridge Test – Certificate in Advanced English (CAE)
- First Certificate in English (FCE), completed with B
- Placement test of RWTH Aachen University's Language Centre (B2 – only available for students already enrolled at RWTH Aachen University)

All applicants who have a school leaving qualification or first degree in English that was issued by an institution in the United Kingdom, Ireland, Australia, New Zealand, Canada, or the US are exempt from the English language certificate requirement. Please note that having German citizenship or citizenship of an English-speaking country, even those listed above, does not in and of itself exempt you from the respective language certificate requirement.

No German language skills are required for admission and enrolment. However, you will have the chance to take German language courses as part of your curriculum at RWTH Aachen University Language Centre.

Application deadline

Non-EU applicants (applicants who have citizenship of a country outside EU/EEA):
2 December to 1 March

EU applicants (applicants who have citizenship of an EU/EEA country, are currently enrolled at RWTH Aachen or hold a German university degree):
2 December to 15 July

Apply by 15 January (non-EU) / 15 April (EU) to benefit from a 10% early bird discount on the tuition fees!

Submit application to

Please use [the official online application portal of RWTH Aachen University](#) and submit your electronic application.

Services

Possibility of finding part-time employment

Generally, students enrolled at RWTH Aachen University have the opportunity to find a job on campus and work up to 19 hours per week. This also allows students to become more familiar with the university institutes and to take part in projects related to their field of study. The maximum working limit for off-campus work is 120 full days / 240 half days per year for non-EU students.

Accommodation

Aachen is a vibrant university city with several hundred new students arriving each semester. The housing market is quite tough as a result, especially during the months of March/April and September/October. Finding suitable and affordable accommodation can be time consuming and challenging.

Therefore, we as RWTH International Academy offer our own accommodation in two apartment buildings in the city centre to students of our Master's degree programmes. Benefit from exclusive prices and in-house services, whether you only need short-term accommodation before moving

into your own apartment, or you are looking for a new home for the duration of your studies. Visit our [housing website](#) for more information.

Career advisory service

Our Career Service is an integral part of our student success management. It is designed to empower you to proactively drive your career forward from the first day of your studies. You will have seamless access to a valuable and comprehensive career programme matching your studies. Experience extensive career services and mutually beneficial connections to employers, research facilities and institutes at RWTH Aachen University throughout the academic year. As alumni of RWTH Aachen University, we will support you in achieving your career goals and lifelong success by providing innovative further education programmes and networking events.

Benefit from:

- career programme
- advice and coaching
- professional collaborations and partnerships
- career platform

Support for international students and doctoral candidates

- Welcome event
- Cultural and linguistic preparation
- Visa matters
- Specialist counselling
- Help with finding accommodation
- Tutors
- Accompanying programme
- Support with registration procedures

General services and support for international students and doctoral candidates

We look forward to welcoming students of all nationalities! For students from [China](#), [India](#) and [Latin America](#), we provide exclusive access, special support and individual consultation through our Academy Offices on site.



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Bhavin Patel
MSc

The MSc CAME is designed to fulfil the needs of each individual. Now I see my friends working in different fields, such as CFD, simulation, and production. This course of study has actively qualified us for our respective jobs and has given us deep insight into different fields.



MSc Computer-Aided Conception and Production in Mechanical Engineering

As a student of our executive Master's degree programme in Computer-Aided Mechanical Engineering, you will design, apply and optimise cutting-edge computer modelling for the development of high-tech products in all emerging fields of technology: automotive, environmental, and biomedical... You name it — we will teach it to you. We look forward to welcoming you to Aachen!

» more:

https://www.youtube.com/watch?v=IbBjF-x9_T8

RWTH Aachen University



RWTH Aachen University

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With 260 institutes, nine faculties and three Clusters of Excellence, RWTH Aachen University is one of Europe's leading institutions for science and research. Currently, more than 47,000 students are enrolled in 170 courses of study. Of these students, more than 13,000 are

international students. RWTH Aachen is well-known for its state-of-the-art education that tackles some of the world's most pressing global challenges. Our graduates are highly sought after by businesses and industry as trainees and for executive positions.

As the official academy for education of RWTH Aachen University, RWTH International Academy is tasked with promoting and developing the integration of professional and academic education. Our goal is to make knowledge accessible to international participants through application-oriented educational formats and programmes, thus making a lasting contribution to lifelong learning.

[More about RWTH International Academy](#)



University location

The student city of Aachen is a vibrant and historic place located at the border triangle of Germany, Belgium and the Netherlands. Aachen was a favoured residence of Charlemagne. After the departure of the Romans from this region, Charlemagne finally managed to forge the lion's share of Europe into something that resembled an administrative unity, with Aachen as the beating heart of the empire. The "Rathaus" (city hall) and "Dom" (cathedral) bear witness to this earliest Carolingian building history. During your time in Aachen, you will have the opportunity to discover the city, its history and its most important sights. Moreover, you will experience student life at one of Europe's leading technical universities and become part of the international student community. There is no better place to encounter European culture while challenging yourself in our programmes.


Contact

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International Programmes in Germany - Database

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Editor

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

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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