



# INTERNATIONAL PROGRAMMES

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# Master's degree





# Artificial Intelligence for Molecular Sciences Technische Universität Braunschweig • Braunschweig

### Overview

Degree	Master of Science
Teaching language	• English
Languages	Courses are held in English (100%).
Full-time / part-time	• full-time
Programme duration	4 semesters
Beginning	Winter semester
Application deadline	15 July for the following winter semester
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	<ul> <li>AIMS is an interdisciplinary, research-oriented, international, and 100% English-language Master's degree programme at TU Braunschweig.</li> <li>Choose from three specialisations of study:         <ul> <li>Chemical Synthesis and Drugs</li> <li>Spectroscopy and Imaging</li> <li>Data-Driven Biology</li> </ul> </li> <li>AIMS prepares the next generation of molecular scientists to excel in data science, with a focus on artificial intelligence (AI) and machine learning</li> <li>Students will develop and apply AI models to speed up physical simulations and analyse large sets of high-dimensional data on molecular structure and dynamics.</li> <li>Because of the international focus of AIMS, our students find themselves in a multicultural environment.</li> </ul>

### **Course Details**

#### Course organisation

In the AIMS Master's programme, you will acquire extensive foundational knowledge in applied mathematics and computer science, expand your expertise from your Bachelor's degree, and specialise in an area of molecular sciences.

The programme is research-oriented, and it prepares you to independently tackle complex scientific questions. You will benefit from the wide-ranging course offerings at TU Braunschweig when choosing your **specialisation**:

- Chemical Synthesis and Drugs
- Spectroscopy and Imaging
- Data-Driven Biology

You can complement your chosen specialisation with other subject areas that are beneficial to your study goals.

The modular structure allows for combined studies with the participation of the Faculty of Life Sciences at TU Braunschweig, the major research facilities in the Braunschweig research region, and foreign partner universities.

At the end of the Master's programme, you will present independent scientific research with a Master's thesis in English.

Study plan

» PDF Download

A Diploma	supplement will
be issued	

Yes

#### International elements

• Integrated/optional study abroad unit(s)

### Integrated/optional study abroad unit(s)

You will benefit from our international contacts if you intend to study a semester abroad. In addition to established Erasmus stays – for example, in France, the United Kingdom, or Sweden – new contacts can also be initiated and established with the support of our Mobility Office.

### Course-specific, integrated German language courses

No

Course-specific, integrated English language courses

No

### Costs / Funding

Tuition	fees	per	semester	in
EUR				

None

#### Semester contribution

In order to enrol at TU Braunschweig or to register back for the coming semester, you have to pay your semester contribution (currently approx. 364 EUR).

The semester contribution for example covers your semester ticket for public transport.

#### Costs of living

By German standards, Braunschweig is not an expensive place to study. Nevertheless, you need a minimum of about 940 EUR per month to be able to study here successfully.

More information about financing your studies can be found here.

Description of the above- mentioned funding TU Braunschweig has a scholarship pro The stipend rate is 300 EUR per month	ogramme for excellent students ("Deutschlandstipendium").
university Information on funding can be found h	nere.

## Requirements / Registration

Academic admission requirements	Application requirements
Language requirements	<ul> <li>Proof of English language proficiency:</li> <li>Language of instruction (marked on transcript or stated by university) or equivalent</li> <li>TOEFL (min. 95 iBT)</li> <li>IELTS (min. 6.5)</li> <li>CAE (min. grade B)</li> <li>CPE (min. grade C)</li> </ul>
Application deadline	15 July for the following winter semester
Submit application to	Online Application

### Services

Possibility of finding part- time employment	TU Braunschweig offers various jobs for student assistants. You can find an overview of the job offers here:  To the job market
	To the Job market
Accommodation	The Student Services OstNiedersachsen ("Studentenwerk") offer several dormitories: https://www.stw-on.de/en/braunschweig/housing/.  More information about finding housing is available here:https://www.tu-braunschweig/do/en/freshmen hub/important informations/housing search
	braunschweig.de/en/freshmen-hub/important-informations/housing-search.
Support for international students and doctoral candidates	<ul> <li>Welcome event</li> <li>Buddy programme</li> <li>Accompanying programme</li> <li>Cultural and linguistic preparation</li> </ul>

General services and support for international students and doctoral candidates

TU Braunschweig offers a broad range of support programmes for all administrative, academic, social, and personal questions and challenges that international students may have.



### 153 seconds TU Braunschweig

TU Braunschweig in a quick runthrough: student Jannick Stühff takes you along and shows you what studying at the Carolo-Wilhelmina is all about. Get to know our campus, learn more about life in Braunschweig, and see first-hand what cutting-edge research means to

#### » more:

https://www.youtube.com/watch? v=A5jGY9lYDMo

# Technische Universität Braunschweig



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#### 275 years of experience in teaching and research

A very warm welcome! We are happy you are interested in studying in Braunschweig. TU Braunschweig is a university with a long tradition of excellent research and teaching. We are part of the TU9 network, the alliance of the leading Universities of Technology in Germany.

TU Braunschweig has about 16,000 students and about 19 percent of them are international students. Six departments and 120 institutes offer 86 degree programmes and excellent facilities for interdisciplinary research work in the fields of engineering, natural sciences, social sciences, and the humanities.

TU Braunschweig is situated at the centre of Europe's most active research and development region. The large number of major companies and leading national research institutes in the Braunschweig region create an enormous scientific potential. Students benefit greatly from the many active partnerships between university and industry. They can be involved in current research projects early on in their studies and work on study projects with practical relevance. Internships and practical training enable students to gain insights into various companies and to establish initial contacts with potential employers.

https://www.tu-braunschweig.de/en/why-braunschweig



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### University location

Braunschweig is a lively student city situated in northern Germany. With a population of around 250,000, it is big enough to feel cosmopolitan and yet small enough not to be overwhelming. As an important cultural and political centre dating back to the Middle Ages, Braunschweig retains the imprint of each passing age, from the medieval castle and the Gothic cathedral to modern shopping streets and leisure facilities.

Braunschweig has an international reputation as a city of research. The high density of national and international companies and scientific research institutes located in and around the city make Braunschweig the most active research and development region in all of Europe.

www.braunschweig.de

#### **Contact**

#### Technische Universität Braunschweig

Fakultät für Lebenswissenschaften Studiendekanat Chemie, Lebensmittelchemie, Biochemie/Chemische Biologie und AIMS

Universitätsplatz 2 38106 Braunschweig

- Course website: https://www.tu-braunschweig.de/flw/studierende/artificial-intelligence-for-molecular-sciences-aims
- f https://www.facebook.com/tubraunschweig
- in https://www.linkedin.com/school/tu-braunschweig/
- https://www.instagram.com/tu.braunschweig/?hl=en
- https://www.youtube.com/channel/UC8X4NAyIUr9Q12hVUOoqyhQ

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### International Programmes in Germany - Database

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

#### Editor

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#### **GATE-Germany**

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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