



Deutscher Akademischer Austauschdienst  
German Academic Exchange Service



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# Master's degree



## MSc Artificial Intelligence and Machine Learning

Technical University of Darmstadt • Darmstadt

### Overview

Degree	Master of Science in Artificial Intelligence and Machine Learning
Teaching language	<ul style="list-style-type: none"><li>English</li></ul>
Languages	All courses and exams are completely in English.
Full-time / part-time	<ul style="list-style-type: none"><li>full-time</li></ul>
Programme duration	4 semesters
Beginning	Winter and summer semester
Application deadline	<ul style="list-style-type: none"><li>15 July for the following winter semester</li><li>15 January for the following summer semester</li></ul> <p>Dates for the entrance exam:</p> <ul style="list-style-type: none"><li>August for the subsequent winter semester</li><li>February for the subsequent summer semester</li></ul> <p>Deadlines for the submission of external test results:</p> <ul style="list-style-type: none"><li>August for the following winter semester</li><li>February for the following summer semester</li></ul>
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No
Description/content	<p>In this research-oriented Master of Science programme, students further develop the technical and interdisciplinary competence in artificial intelligence (AI) building that they have obtained in a preceding Bachelor's degree programme in computer science. This programme of studies qualifies graduates for research and development work in both academia and industry.</p> <p><b>Set individual priorities</b></p> <p>Students have a great deal of freedom in designing their individual curriculum and can thus</p>

specialise in accordance with their personal interests. Composition of the course selection in accordance with a few compulsory elective areas ensures that students acquire the necessary basic knowledge in AI required for completing the degree as well as the AI specialist expertise and all essential capabilities for a career in AI and machine learning (ML).

#### Practice-oriented

A great strength of the degree programme are the integrated AI projects and labs. Students have the unique opportunity to participate in challenging AI projects in cutting-edge international AI research.

#### Environment

Darmstadt is Germany's only location that is strong both in the full breadth of AI research (with leading research groups in AI Fundamentals, Computer Vision, Games, Natural Language Processing, Robotics and Systems AI) as well as in the full depth on machine learning (with well-known researchers in deep learning, statistical learning, generative models, relational learning, robot learning, reinforcement learning as well as data mining and data management). These AI researchers are located in the computer science department of TU Darmstadt (one of Germany's strongest computer science departments), the Hessian Center for Artificial Intelligence (hessian.AI), and the German Research Center for Artificial Intelligence (DFKI). AI research applied to computer security and computer vision & graphics is also supported by Darmstadt's Fraunhofer Institutes on these specific topics.

## Course Details

Course organisation	The main part of the Master's programme consists of electives from four course catalogues highlighting different aspects of knowledge required from AI specialists:
	<ol style="list-style-type: none"> <li>1. Fundamentals (catalogue: Foundations of Artificial Intelligence),</li> <li>2. Advanced models and methods of artificial intelligence and machine learning (catalogue: AI Models and Methods),</li> <li>3. Challenges in the development of real AI systems (catalogue: AI Systems)</li> <li>4. Application-oriented courses (catalogue: AI Domains and Applications).</li> </ol>
	<b>Students must take courses from all areas.</b>
	A wide range of AI seminars and labs introduces students to AI research and application. Additionally, students can prepare for their Master's theses from the start of their studies onward through larger, possibly multi-part projects.
	Part-time studies are possible.
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	The registration fee totals about 300 EUR per semester. This includes administrative fees and a

student ticket that is valid for short distance public transport in Darmstadt and the state of Hesse.

[Registration fees](#)

#### Costs of living

Estimated living expenses are about 700 EUR to 900 EUR per month. Please note that these costs are just a rough estimation and can vary greatly depending on your way of life, your accommodation, etc.

[Costs and budget](#)

#### Funding opportunities within the university

No

## Requirements / Registration

#### Academic admission requirements

**Bachelor's degree (or equivalent) in computer science**

Completion of the entrance exam (see overview for dates) may be required. This entrance exam can potentially be substituted with these alternative external tests:

- GRE with a minimum score of 153 in verbal reasoning, 159 in quantitative reasoning and 3.0 in analytic writing
- GATE (CS) with a minimum score of 750

For further details, visit the homepage of the [study programme](#).

#### Language requirements

Applicants must provide proof of their English skills: UNICert level III, TOEFL test (paper 550, CBT 213, iBT 95), IELTS 6.5, CEFR C1 or equivalent

#### Application deadline

- **15 July for the following winter semester**
- **15 January for the following summer semester**

**Dates for the entrance exam:**

- August for the subsequent winter semester
- February for the subsequent summer semester

**Deadlines for the submission of external test results:**

- August for the following winter semester
- February for the following summer semester

#### Submit application to

[Online Application TU Darmstadt](#)

## Services

#### Possibility of finding part-time employment

The Rhine-Main region is the home of a large number of IT companies that often employ IT students in part-time positions.

[Jobs & part-time work](#)

## Accommodation

**TU Darmstadt's** International Affairs Department assists international students in their search for accommodation through its Housing Assistance Office. A major science hub, Darmstadt is home to multiple research institutions, three universities, and many high-technology companies, all of which attract people from around the world. A wide variety of accommodations that vary in size, furnishing, and rent are available in Darmstadt and its vicinity. As the university does not own or manage student housing, we support students in finding housing in private and public student dormitories or on the private market. In order to improve your chances in finding the optimal place to live, we recommend that you start your search early. We are happy to assist you in this process. Please make sure to register online on the [housing assistance website](#) for international students.

Our services include the distribution of an “Accommodation Guide” that includes links to private and public student dormitories, hotels and youth hostels, and a “Housing Guide” that provides tips on how to search for accommodation in Darmstadt.

## Contact

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🌐 Course website: [https://www.informatik.tu-darmstadt.de/studium\\_fb20/im\\_studium/studiengaenge\\_liste/aim\\_msc.en.jsp](https://www.informatik.tu-darmstadt.de/studium_fb20/im_studium/studiengaenge_liste/aim_msc.en.jsp)

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# International Programmes in Germany - Database

[www.daad.de/international-programmes](http://www.daad.de/international-programmes)  
[www.daad.de/sommerkurse](http://www.daad.de/sommerkurse)

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## GATE-Germany

Consortium for International Higher Education Marketing  
[www.gate-germany.de](http://www.gate-germany.de)

## Disclaimer

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