

# INTERNATIONAL PROGRAMMES

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Master's degree	2
MSc Artificial Intelligence and Data Science • Deggendorf Institute of Technology • Deggendorf	2

# Master's degree



## MSc Artificial Intelligence and Data Science

**Deggendorf Institute of Technology • Deggendorf** 











### Overview

Degree	Master of Science (MSc)
In cooperation with	University of South Bohemia
Teaching language	• English
Languages	All courses are taught 100% in English, with the exception of the compulsory German or Czech language courses.
Programme duration	4 semesters
Beginning	Winter and summer semester
Application deadline	15 November to 30 November for March entries (summer semester at DIT )
	The application for the winter semester at the University of South Bohemia takes place in spring.
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	Yes
Description/content	Just as electricity brought about far-reaching changes over 100 years ago, artificial intelligence (AI) has fundamentally started to change our lives. AI is the next phase of the industrial revolution, and it has established itself firmly in our society. Almost all branches of industry have been affected by the ongoing transformation through its algorithms.
	The Master of Artificial Intelligence and Data Science programme (MAID) at the Deggendorf Institute of Technology addresses this transformation by providing students with the broad and in-depth skills required of experts working in and developing AI. Moreover, data science forms an integral part of this study programme. AI experts need to be able to obtain, process and store enormous amounts of data, which is at the root of AI and development processes.

Unique to Master's programmes in this field, is the integrated internship that students are required to complete and enables them to put theory to practice.

In addition, the MAID study programme serves to strengthen EU goals of cooperative learning, research and teaching. Due to the cross border nature of the study programme, its embeddedness in regional high-tech companies and its international character, students will not only gain expertise and practice in this field but benefit from a diverse student body that will promote intercultural competence and provide a solid foundation for innovation.

#### **Current information**

#### **Rankings**

#### WURI (World's Universities with Real Impact) Ranking 2022:

- No. 8 worldwide in the category "Crisis Management"
- No. 2 worldwide in the category "Entrepreneurial Spirit"

### **Course Details**

#### Course organisation

This postgraduate programme consists of four semesters and includes a compulsory internship. Owing to the global relevance of the subject area, the programme is instructed in English only. Students will be required to take at least one semester (second semester) at the partner university.

#### Semester one

- Artificial Intelligence and Software Development
- Theoretical Fundamentals of Artificial Intelligence
- Advanced Machine Learning
- Elective 1\*
- Elective 2\*
- German or Czech

#### Semester two (University of South Bohemia)

- Information Theory
- Mathematics for Artificial Intelligence and Data Science
- Computational Intelligence
- Distributed Algorithms
- Advanced Data Storage and Analyses
- Parallel Programming and Computing
- German or Czech

#### Semester three

- Internship
- Elective 3\*
- Elective 4\*

### Semester four

- Advanced Topics in Al
- Master's Seminar
- Master's Thesis

\*All four electives must be chosen in consultation with the MAID study coordinator. Electives must have relevance for AI and/or data science.

### A Diploma supplement will be issued

Yes

International elements	Integrated study abroad unit(s)
Integrated study abroad unit(s)	Students will be required to spend at least one semester at our partner institution, the University of South Bohemia.
Integrated internships	Students can complete their internship in the fields of AI or data science at an institution of their choosing, providing all requirements are met.
Course-specific, integrated German language courses	Yes
Course-specific, integrated English language courses	Yes

# Costs / Funding

Tuition fees per semester in EUR	None
Semester contribution	72 EUR student service fee per semester Information for international applicants and students
Costs of living	In Deggendorf, the cost of living is approximately 700 EUR per month. The semester in Budweis will cost approximately 500 EUR per month.  Monthly expenses
Funding opportunities within the university	Yes
Description of the above- mentioned funding opportunities within the university	If you are an enrolled DIT student, there are several opportunities to partially finance your studies through a scholarship.  Detailed information about funding opportunities is published here:https://th-deg.de/en/study-with-us/funding.

# Requirements / Registration

Academic admission requirements	The eligibility requirements are a Bachelor's degree and at least 90 credit points from the field of computer science including 18 credits from the fields of artificial intelligence and/or data science.
	In addition, an admission test has to be completed successfully.
Language requirements	English B2, as attested by a recognised language certificate

	More information on the language requirements can be found here:https://www.th-deg.de/en/apply#language-requirements.
Application deadline	15 November to 30 November for March entries (summer semester at DIT )  The application for the winter semester at the University of South Bohemia takes place in spring.
Submit application to	Please apply directly to Deggendorf Institute of Technology via our application portal. All required documents must be uploaded on the application portal. It is not necessary to send in hard copies by postal mail.  Please find more details regarding our application process here: https://www.th-deg.de/en/apply#international.

## Services

Possibility of finding part- time employment	There are various job opportunities in and around Deggendorf.
Accommodation	A supportive environment is vital for students to feel comfortable and do well in their studies. Therefore, we go to great efforts to support our students on personal, social and academic levels.
	The International Office assists international students with all matters regarding accommodation
	There are several dormitories and many flats available in Deggendorf.
	View our flat rental website for private accommodation and get directly into contact with landlords: https://pmit-ext.th-deg.de/wb/search.
	For further information, please contact: accommodation-dit@th-deg.de.
Career advisory service	Career service workshops and seminars are held throughout the year to help students with their job applications and interview techniques.
	We provide the following:
	<ul> <li>CV checks</li> <li>Workshops and seminars for job preparation</li> <li>University job fair</li> </ul>
Support for international students and doctoral candidates	<ul> <li>Welcome event</li> <li>Buddy programme</li> <li>Tutors</li> <li>Accompanying programme</li> <li>Cultural and linguistic preparation</li> </ul>

• Pick-up service



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Artificial Intelligence and

Data Science

I consider my decision to study at DIT one of the most brilliant moves of my life because I consider this university to be one of the hidden gems in Bavaria. I believe that studying at DIT has great potential to change your career profile. Research institutions, technologically advanced laboratories, a wide range of industrial collaborations and the opportunity to practice what you learn makes DIT unique. Finally, the compulsory internship will be a great asset for your future career.

### **Our Partners**











# Faculties and Fields of Study

Are you interested in environmentalism, psychology, physiotherapy or robots? We offer all this and more at the Deggendorf Institute of Technology (DIT). Watch our video to learn more about our faculties and fields of study at DIT.

#### more:

https://www.youtube.com/watch? v=qCZobPOsD8A

# Deggendorf Institute of Technology



Deggendorf Institute of Technology

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We are a multi-award-winning university of applied sciences founded in 1994 and located in stunning Bavaria. Ranked as one of the best universities of applied sciences in Germany, we strive for academic excellence and are committed to producing global graduates with international degrees at the Bachelor's and Master's level. The total student population of more than 8,500 includes 41% international students from all over the globe. The language of instruction is either English or German, depending on the degree programme. Study

groups rarely include more than 50 students to ensure not only a personal atmosphere but also individual support for students to excel. All full-time degree programmes are free from tuition fees.

Explore our fields of study!

Let us inspire you:

- See the advantages of studying at DIT.
- Read through the International Prospectus.

#### Intensive support:

A supportive environment is vital for students to feel comfortable and do well in their studies. We go to great efforts to support our students on personal, social and academic levels. International students who wish to experience the Bavarian lifestyle in a family can join the "Host Family Programme". "International Tutors" provide social support for international students, while "Study Buddies" help students to understand challenging lecture content. The International Office supports with accommodation, visas, health insurance, scholarships, etc. in addition to organising an orientation week and intercultural training for all incoming internationals.

• Find out more about student support.

#### International experience:

Our 200 partner universities worldwide provide enrolled students with opportunities to gain experience and earn credits towards their degrees through foreign exchange semesters, or in some cases, through double-degree studies abroad.

#### Practical experience:

All undergraduate studies include a compulsory internship, giving students the opportunity to practice their hands-on skills. Postgraduate students have the opportunity to work on practical research and development projects on our own technology campuses. We cooperate with more than 500 companies, including global players such as BMW, MAN, Continental and Siemens, where students can gain invaluable work experience. The university's career service organises a range of practical workshops and seminars to prepare students for the job market, meaning our graduates are particularly successful in the job market; 87% enter into permanent employment directly after graduation.

#### Student lifestyle:

We consider agood lifestyle to be an important factor for the well-being of our students. They are supported with many facilities, such as a range of student clubs, an extensive sports programme, a big band, a campus cinema, an international week including an international food fair, and social activities or day trips organised by the Erasmus Student Network. Our annual campus open day and summer open-air music festival are firm favourites among our staff and student community.





### University location

Our three teaching campuses are located in Bavaria in Southern Germany, close to the city of Munich, the Austrian border and the Alps. Our main flagship campus is located in charming Deggendorf and is the base for most students. The European Campus Rottal-Inn (ECRI) is a dynamic and multicultural study environment where all classes are exclusively in English. The Cham campus is a cosy international hub for Al and mechatronic students.

#### View the campuses

#### **Deggendorf Campus:**

The Deggendorf campus is our largest campus, and it has recently undergone a vast extension to accommodate the expanding university community. It has a modern, central courtyard with a hovering deck over water where staff and students relax while having lunch, socialising, revising or just lounging. All lecture rooms, science labs, facilities and service centres are based on and around campus, creating an excellent studying environment.

The beautiful town of Deggendorf has a population of 40,000 and is located on the banks of the Danube river at the foot of the Bavarian Forest. Munich International Airport is one hour's drive away and can easily be accessed by public transport. Our students enjoy vibrant social lives, as Deggendorf has plenty to offer: restaurants, cafés and pubs, plus many cultural festivals and events. It has an excellent

network of bike trails, leisure cruise ships on the river and a surrounding hilly landscape that provides a stunning natural backdrop to enjoy countless recreational activities.

Newly built, self-contained student apartment blocks are within close walking or biking proximity to campus, the town centre and all local amenities.

#### **European Campus Rottal-Inn:**

At the European Rottal-Inn campus, all Bachelor's and Master's degree programmes are conducted exclusively in English, creating a dynamic study environment with a diverse and international student community.

The campus is nestled in the town of Pfarrkirchen among rolling, picturesque hills between the Danube and Inn rivers, close to the Austrian border. Pfarrkirchen has become culturally renowned in the area due to its exceptional art exhibitions, museum nights, festivals and events throughout the year. In summer, the old town festival tempts thousands of visitors with its multicultural culinary and musical events. All year round, students enjoy the relaxed Bavarian atmosphere in local cafés, restaurants and markets in the traditional town square. The surrounding beautiful Rott Valley has a range of appealing leisure activities, being well-known for its spas, golf courses, equestrian sports and extensive bike network.

#### Cham campus:

The Cham campus is our newest and most compact campus, with almost 350 students, 75% being international students. Its Master's programmes are taught completely in English, and students benefit from intensive personal supervision in small study groups. The campus has a close relationship with regional and national companies in the field of mechatronics, so students learn in both an applied and scientific way.

Only a ten-minute walk from the town centre of Cham, the campus offers a unique atmosphere. Situated directly on the Regen River, students complete their studies in a relaxed and scenic country environment.

There are plenty of leisure facilities within walking distance of the campus: a leisure park with various sports facilities, a swimming pool with access to the river, a cinema, a climbing hall, shops and restaurants. It's a great place to live and study!

### **Contact**

#### **Deggendorf Institute of Technology**

Faculty of Computer Science

94469 Deggendorf

- Course website: https://th-deg.de/aid-m-en
- f https://www.facebook.com/HochschuleDeggendorf
- https://twitter.com/th\_deggendorf
- n https://www.linkedin.com/school/technische-hochschule-deggendorf/
- https://www.youtube.com/user/THDeggendorf

Last update 01.07.2024 08:12:00

### 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

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The publication is funded by the German Federal Ministry of Education and Research and by contributions of the participating German institutions of higher education.

